



August 3, 2009

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DHAC, PJ-12.3
888 First Street, N.E.
Washington, DC 20426

Re: Article 406: Shoreline Management Plan for the Markham Ferry Project (2183)

Dear Secretary Bose:

Pursuant to Article 406 of the FERC License for the Markham Ferry Project No. 2183, issued August 9, 2006, the Grand River Dam Authority hereby submits the Shoreline Management Plan for Lake Hudson.

If you have any questions, please feel free to contact me at 918.256.5545 or cdavis@grda.com.

Sincerely,

D. Casey Davis
Assistant General Counsel
Grand River Dam Authority



A map of Lake Hudson, showing its complex shoreline with numerous inlets and peninsulas. The lake is shaded in a light blue color. The map is framed by a double-line border.

GRDA

**LAKE HUDSON
SHORELINE MANAGEMENT PLAN**

**GRAND RIVER DAM AUTHORITY
MARKHAM FERRY PROJECT
*FERC NO. 2183***

GRAND RIVER DAM AUTHORITY

VINITA, OKLAHOMA

MARKHAM FERRY PROJECT

FERC No. 2183

LAKE HUDSON

SHORELINE MANAGEMENT PLAN

TABLE OF CONTENTS

1.0	Introduction.....	4
2.0	Purpose and Scope of the Shoreline Management Plan	5
3.0	Goals and Objectives	8
4.0	Public Participation and Agency Consultation	9
5.0	Inventory of Existing Resources and Uses	12
5.4	Aquatic Species.....	15
5.5	Avian Species	16
5.6	Mammals	16
5.7	Reptiles and Amphibians	17
5.8	Threatened and Endangered Species	17
5.8.1	Gray Bat.....	17
5.8.2	Bald Eagle.....	18
5.8.3	American Burying Beetle	19
5.9	Botanical	20
5.10	Socioeconomics	21
6.0	Summary of Recreation Management Plan	23
6.1	Recreation Management at Lake Hudson.....	23
6.2	Oklahoma Department of Wildlife Conservation.....	24
6.3	Oklahoma Tourism and Recreation Department	25
6.4	Recreation Sites	25
6.4.1	Public Recreation Sites	25
6.4.2	GRDA Boat Ramps	26
6.4.3	State Parks.....	26
6.4.4	Other Public Access.....	26
6.4.5	Private Recreation Access	26
6.4.6	Commercial Development	27
6.5	Estimates of Recreational Use	27
6.6	Planning for the Future	27
7.0	Shoreline Management Guidelines for Project Lands	29
7.1	Shoreline Management Classifications for Lake Hudson.....	30
7.1.1	Project Operations Areas	30
7.1.2	Municipal / Public Use Areas	30
7.1.3	Stewardship Areas	30
7.1.4	Responsible Growth Areas	32
7.2	Allowable Use Categories	33
7.2.1	Commercial Uses.....	33
7.2.2	Residential Uses.....	34
7.2.3	Municipal/Public Uses.....	35
7.3	Shoreline Management Classification Mapping.....	36
8.0	Adaptive Management for Areas of Concern	37
9.0	New Shoreline Uses Evaluation Process	39
9.1	Evaluation Process.....	40
9.1.1	Project Proponent.....	40
9.1.2	GRDA	41
10.0	Permitting and Inspection	43
10.1	Article 407 “Standard Land Use Article”	43
10.2	GRDA Permitting and Approval	45

10.3	Commercial Permit Application Standards	47
10.4	Residential Dock Application Standards	50
10.5	Vegetation Management	50
10.5.1	Vegetation Management in Responsible Growth SMC.....	51
10.5.2	Vegetation Management in Stewardship SMC and Wetlands.....	53
10.5.3	General Provisions.....	54
10.6	Other Uses Requiring Review and Permitting by GRDA	56
10.6.1	Habitable Structures.....	56
10.6.2	Dredging and Excavation Policy	57
10.6.3	Placement of Buoys	59
10.6.4	Shoreline Stabilization.....	59
10.6.5	Railways, Tram Systems, Fences, Ramps and Retaining Walls.....	60
10.6.6	Grazing.....	61
10.6.7	Licenses to Encroach	61
10.6.8	Lease of Project Lands for Public Purposes	61
10.7	General Property Inspections.....	61
10.8	Permit Waivers	62
10.8.1	General Procedures.....	62
10.9	Grandfathered Improvements	63
10.10	Best Management Practices and Educational Outreach	63
10.11	Agency Regulatory Review and Permitting	64
10.11.1	Army Corps of Engineers	64
10.11.2	State of Oklahoma, Regional, and Local Agencies	64
11.0	Enforcement of the Shoreline Management Plan	68
11.1	Existing Tools for Enforcement.....	68
11.1.1	Enforcement Staff.....	68
11.1.2	Actions Available for Enforcement	68
12.0	SMP Amendment Process	70
12.1	Tracking Non-Project Use	70
12.2	Shoreline Management Classification Monitoring	70
12.3	SMP Amendment Process	71
13.0	Bibliography	73

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (FERC or Commission) issued a new license for the 108-megawatt (MW) Markham Ferry Hydroelectric Project (FERC No. 2183) (Project) to the Grand River Dam Authority (GRDA) on August 9, 2006. Completed in 1962, the Project impounds the waters of the Grand River in northeastern Oklahoma to form Lake Hudson. The project is located immediately downstream of GRDA's Pensacola Project and immediately upstream of the U.S. Army Corps of Engineers' Fort Gibson Lake. Lake Hudson serves as the lower reservoir for GRDA's Salina Pumped Storage Project.

GRDA is an agency of the State of Oklahoma, created by the Oklahoma Legislature in 1935 to be a "conservation and reclamation district for the waters of the Grand River." GRDA manages Lake Hudson pursuant to the terms of the license granted by FERC and the relevant provisions of the Oklahoma Statutes giving it authority to prescribe and enforce rules and regulations for commercial and recreational use of the lake. GRDA currently manages the shoreline through a permitting system and uses GRDA law enforcement personnel to enforce regulations. GRDA shares water storage and release operations with the U.S. Army Corps of Engineers (USACE) as part of a basin wide system of flood control and navigation projects.

2.0 *PURPOSE AND SCOPE OF THE SHORELINE MANAGEMENT PLAN*

2.1 Introduction

Article 406 of the FERC license for the Project requires GRDA to develop and implement a shoreline management plan for Lake Hudson. The SMP must include:

- a) a discussion of the plan's purpose, goals, and objectives;
- b) a discussion of key issues associated with shoreline management at the project, and how issues were addressed in developing the plan;
- c) an identification and description of land use along the project shoreline, including maps identifying the locations of land use types, a description of how these use classifications were defined and delineated, and descriptions of activities and uses that would be allowed within those classifications;
- d) a description of all types of permitted uses, the permit application process, and guidelines for applying for a construction permit within the project boundary;
- e) measures to protect water, fish, and wildlife during shoreline development activities, including testing sediments for contaminants if dredging is proposed;
- f) a description of management policies, monitoring programs, and enforcement;
- g) provisions for periodically reviewing and updating the shoreline management plan;
- h) provisions for consultation with agencies and other interested parties in the implementation of the shoreline management plan;
- i) measures to protect important shoreline habitat areas and cultural resources; and
- j) provisions for coordination with the threatened and endangered species management plan (Article 403), historic properties management plan (Article 404), and recreation management plan (Article 405).

This SMP is designed to guide GRDA's management actions in conformance with the Project's license. This document includes strategies to manage and enhance the environmental and socioeconomic values of the Project. These strategies include protecting environmental resources while providing public access, and maintaining consistency with other jurisdictional policies and plans relevant to the area.

This SMP was developed considering all of the existing and reasonably foreseeable future uses of the Project, resources currently protected by law (*e.g.*, rare, threatened and endangered species, and wetland sites), public interests, and FERC regulations and guidelines. Interested stakeholders, including adjacent property owners, commercial representatives, local realtors, and resource agency staff, provided valuable assistance in developing the SMP through their involvement in the Stakeholder Working Group and the public hearings, by submitting written comments, and through direct consultation. Stakeholders provided valuable insight to daily life on the lake, local knowledge of specific environmental resources, expectations of recreational users, adjacent property owners and business owners, as well as individual perspectives on potential management strategies and actions.

2.2 Territorial Jurisdiction

The provisions of the SMP apply only to real property owned by GRDA within the Project boundary and do not control the use of privately owned land. The Project boundary is defined by the metes and bounds descriptions of property obtained by GRDA through the exercise of the power of eminent domain, and is not determined by reference to any particular contour elevation. Thus, questions about whether a particular piece of land is subject to the SMP can only be answered after review of a survey conducted by a licensed surveyor.

2.3 Structure of the SMP

FERC guidelines recommend that an SMP use existing resource information to designate Shoreline Management Classifications (SMC) and to develop guidelines that provide a framework for determining appropriate proposed shoreline use in relation to

existing uses and environmental resources. An SMP may identify areas afforded additional protection or that may require additional scrutiny before permitting new uses. Similarly, an SMP may also identify shoreline segments that are suitable for future use and that may not require as much scrutiny before development. Most importantly, an SMP provides a management linkage between the Project's license and FERC's obligations under the Federal Power Act.

3.0 GOALS AND OBJECTIVES

The SMP for Lake Hudson is a comprehensive plan designed to guide management of the multiple resources and uses of the Project's shoreline in a manner consistent with the FERC license and Project purposes. It is important to note that the SMP applies only to GRDA owned land and does not control the use of privately owned land. The SMP formalizes many of the processes and criteria that GRDA currently uses to manage and balance the private and public uses of the Project's shoreline with environmental resources and hydroelectric generation. The SMP provides support and rationale for consistent land management policies and permitting decisions, both in the short term and over the life of the Project license. This document serves as a planning tool to guide GRDA in the protection and enhancement of the Project's environmental, recreational and other values over the term of the license. It also provides the background to support permitting decisions and other activities undertaken by GRDA within the Project.

Objectives:

- Establish Shoreline Management Classifications and Allowable Use Categories to guide the management of non-Project uses of GRDA's Project lands;
- Establish an equitable and reasonable balance between private/public uses, overall maintenance of existing natural and cultural resources, and hydroelectric generation;
- Provide a reference and/or linkage to other Project-related studies, management plans, and permitting regulations;
- Provide a summary of the types and locations of existing recreational opportunities and future recreational enhancements;
- Provide support and rationale for permitting processes and regulations within the Project boundary; and
- Describe the SMP amendment and monitoring process.

4.0 PUBLIC PARTICIPATION AND AGENCY CONSULTATION

4.1 Public Meetings and the Stakeholder Working Group

On May 8, 2007, GRDA held a public meeting in Locust Grove, OK, to provide general information about the development of the SMP and to solicit volunteers to serve on the Stakeholder Working Group. More than 80 individuals attended this meeting and approximately 40 offered to serve on the Stakeholder Working Group.

The Stakeholder Working Group was designed as a volunteer advisory committee to provide opinion, advice and their personal or group experiences at Lake Hudson, so that local insight and information could be considered and used in the development of the SMP as appropriate. An effort was made to assure representation of a wide range of private and commercial interests as well as a regionally diverse group. Because of the number of individuals interested in participating, and to assure spaces for local, state and federal agency staff, working group participation was informally capped at approximately 20 individuals. Individuals who indicated interest after the initial meeting were advised of this cap, but encouraged to forward their concerns to group members or to attend the meetings as public participants.

The Stakeholder Working Group was comprised of two committees with distinct tasks and objectives -- the Allowable Use & Land Classification Committee and the Vegetation Management and Permitting Committee. The Allowable Use & Land Classification Committee focused on the development of the shoreline classifications that will determine future allowable uses of project lands. In working toward this goal, this committee helped:

1. Identify existing and potential uses of shorelines and adjacent lands and waters.
2. Identify and assess the condition of natural, cultural and aesthetic resources within the project.
3. Identify desirable uses in light of their impact upon project resources and purposes.

The Vegetation Management and Permitting Committee was charged with the following tasks:

1. Assist in the development of a comprehensive vegetation management plan .
2. Review and make recommendations on all current GRDA permitting requirements and enforcement practices.
3. Make recommendations on changes to permitting requirements and enforcement practices as may be necessary to implement the SMP.

Generally, the two committees met separately and concern themselves only with their respective areas of responsibility. However, the interrelationship between their subjects and the need to harmonize their efforts made it necessary for each to review the work of the other and to meet together. During its final meeting, the SWG expressed strong support for the SMP.

4.2 Agency Consultation

Resource agencies, particularly the Oklahoma Department of Wildlife Conservation (ODWC) and the U.S. Fish and Wildlife Service (USFWS) played an active role in the development of the SMP. GRDA sought agency input through the Stakeholder Working Group, through individual consultation with the agencies, and by soliciting written comments.

On June 17, 2009, representatives of the ODWC, USFWS, and GRDA met to discuss the agencies' concerns and recommendations regarding the SMP and to explore possible alternatives and solutions. GRDA staff considered this meeting to be a positive and productive experience.

During a forty-five (45) day written comment period that ended July 16, 2009, GRDA sought input from twenty-seven (27) resource agencies. While almost all of the agencies had either no comments or no opposition to the plan, three agencies did provide written comments. (See Appendix A for copies of those comments and GRDA's responses.) The responding agencies were ODWC, ODEQ, and the State Historic Preservation Office. GRDA has adopted those suggestions where appropriate. At the

time of filing the SMP with FERC, GRDA had not received written comments from USFWS. In the event comments are received after filing, GRDA will forward the same to FERC with any necessary response.

5.0 *INVENTORY OF EXISTING RESOURCES AND USES*

5.1 Grand River Basin

The Markham Ferry Project is located at river mile (RM) 47.4 of the Grand River, approximately 1.5 miles north of Locust Grove, Oklahoma, in Mayes County. The project is located immediately downstream of GRDA's Pensacola Project and immediately upstream of the Corps' Fort Gibson Lake. The Grand River forms in Kansas and flows south through northeastern Oklahoma approximately 460 miles before discharging into the Arkansas River near the town of Fort Gibson.

The Grand River watershed upstream of the project includes five major tributaries and covers more than 12,500 square miles in portions of Kansas, Missouri, Oklahoma, and Arkansas. Approximately 25 percent of precipitation in the upper watershed reaches the project as runoff. Water volume of the Grand River varies seasonally with high spring runoff and generally low fall and winter flows. The maximum recorded flow in the Grand River is 300,000 cfs, and average mean annual flows are about 7,700 cfs. In addition to power and recreation, water from the Grand River is used for irrigation and municipal needs.

The project is located amidst two physiographic regions; the western part of Mayes County is in the Cherokee Prairies and the eastern part of the county is in the Ozark Highland. The climate in Mayes County and the project area is temperate, with average annual precipitation of about 40 inches. Summers are hot and humid, and winters are generally mild. Warm, moist air moving north from the Gulf of Mexico typically drives local weather patterns.

5.2 Markham Ferry Project

The existing Markham Ferry Project consists of:

- 1) the 3,744-foot-long, 90-foot-high Kerr dam, including:
 - a. a 2,256-foot-long, 90-foot-high earthen embankment on its northern side with a crest elevation of 645 feet mean sea level (msl),

- b. a 1,388-foot-long concrete non-overflow section with a crest elevation at 642 feet msl, and
 - c. an 824-foot-long gated spillway with a crest of 599 feet msl topped with 17, 40-foot-long by 27-foot-high, steel Taintor gates and two 80-ton capacity traveling gate hoists;
- 2) a concrete powerhouse integral with the dam containing four generating units with a total installed generating capacity of 108 MW;
 - 3) the 15-mile-long, 10,900-acre Lake Hudson, with a normal elevation of 619 feet msl;
 - 4) the 6,200-foot-long by 45-foot-high Salina dike with a crest elevation of 642.25 feet msl; and
 - 5) appurtenant facilities and equipment.

GRDA operates the Markham Ferry Project with Grand River flows that are available within the constraints of the Department of the Army Corps of Engineer's (USACE) flood control restrictions¹ and in coordination with operation of GRDA's upstream Pensacola (FERC Project No. 1494) and adjacent Salina Pumped Storage (FERC Project No. 2524) projects.

Lake Hudson serves as the lower reservoir for the Salina Pumped Storage Project. As such, Lake Hudson water is pumped to the Salina Project during off-peak hours resulting in a reservoir drawdown. During peak hours, water is released from the Salina Project resulting in a water level increase on Lake Hudson. Normal daily variations in Lake Hudson when no flood control is occurring are about 1 foot (0.5 foot on either side of elevation 619 feet msl), and can extend up to 3.6 feet (1.83 feet below to 1.75 feet above 619 feet msl) due to variations in available inflow from the Pensacola and the Salina projects, variations in power generation needs (peak and off-peak), maintenance activities, and USACE's flood control management actions.

¹ USACE directs operations of the Pensacola, Markham Ferry, and Fort Gibson (located downstream of Markham Ferry) reservoirs for flood protection to the lower Grand (Neosho) and Arkansas River valleys.

5.3 Water Quality

Lake Hudson is the fourteenth largest reservoir in Oklahoma and provides power generation, flood control, recreation, and public and private water supply. The vast majority of Lake Hudson's water is supplied by releases from Grand Lake. In addition to receiving water from the Grand Lake watershed, Lake Hudson also receives water directly from other tributaries originating in Oklahoma and Arkansas.

The Grand Lake and Lake Hudson watersheds are comprised of land spread across Oklahoma, Kansas, Missouri, and Arkansas. The majority of Grand Lake's water is supplied by tributaries originating outside Oklahoma's border in Kansas, while the majority of people residing in Grand Lake's watershed live in Missouri. Oklahoma's border only encompasses approximately nine percent of the Grand Lake watershed. Point sources of pollution into the Grand Lake watershed include nutrient input from residential development around the Lake, from 22 wastewater treatment plants located in the Oklahoma's portion of the watershed, plus portions of the watershed located in Arkansas, Kansas, and Missouri, and acidic mine drainage with associated heavy metal contaminants from several sources in the Neosho and Spring River watersheds. Much of the nonpoint source pollution in the watershed comes from agricultural activities, lakeside recreation, and possible trace metal contamination in the surface runoff from mining operations (OWRB and OSU, 1995; OK Office of the Secretary of the Environment, 2004).

Various portions of the Lake Hudson and Grand Lake watersheds are listed on the state 303(d) lists as impaired waters. Lower Lake Hudson has been listed for low dissolved oxygen and Grand Lake has been listed for organic enrichment/low dissolved oxygen and color (ODEQ, 2008). Eighty segments of the Grand Lake watershed are listed on the Kansas 1998 303(d) list as impaired by low dissolved oxygen, eutrophication, pH, siltation, fecal coliform, cadmium, hydro, zinc, ammonia, selenium, chlordane, sulfate, lead, metals, copper, and organic enrichment. Twenty segments of the Grand Lake watershed are listed on the Missouri 1998 303(d) list as being impaired by zinc, nutrients, BOD, fecal coliform, algae, sediment, ammonia, and suspended solids. One segment of the Grand Lake watershed is on the Arkansas 1998 303(d) list for heavy

metals. Multiple segments of both the Lake Hudson and Grand Lake watersheds are listed as impaired in Oklahoma's 2006 Integrated Report for low dissolved oxygen, chloride, lead, pathogens, pH, sulfates, TDS, and turbidity (ODEQ, 2008).

Contaminants such as cadmium, chromium, lead, and zinc (aka heavy metals), which are the result of historic mining operations upstream of the Markham Ferry Project, are found throughout the Grand River Basin. However, water concentrations of cadmium, chromium, and lead were less than the detection limits for these heavy metals in Lake Hudson (GRDA, 2005b). Results of the limited sediment sampling conducted in 2004 suggest that Lake Hudson has generally low concentrations of cadmium, chromium, and lead (GRDA, 2005a). Zinc concentrations were considerably higher than the other metals analyzed. The Oklahoma Water Resources Board found acceptable levels of metal residues for fish and wildlife propagation in Lake Hudson (OWRB, 2007). GRDA reported similar results regarding accumulation of cadmium, chromium, lead, and zinc in fish in the project area (GRDA, 2005a).

5.4 Aquatic Species

The fish community in Lake Hudson is similar to other reservoirs within the region. The primary sportfish in the Lake is largemouth bass, and Lake Hudson is considered one of the top bass tournament reservoirs during the past several years (GRDA, 2004). The Lake also has a sport fishery for smallmouth bass, hybrid striped bass, white bass, black and white crappie, and panfish. The panfish in Lake Hudson include species such as the warmouth, longear sunfish, bluegill, and green sunfish. A healthy forage fish population of threadfin and gizzard shad maintains the sport fishery. Other species of recreational interest include flathead, blue, and channel catfish. Other species within the Lake include longnose gar, carp, river carpsucker, smallmouth buffalo, logperch, emerald shiner, river shiner, red shiner, ghost shiner, silverband shiner, bullhead minnow, blue sucker, river redhorse, and river darter (FERC, 2006).

Another species of particular interest is the paddlefish, a pelagic, filter-feeding, planktivore that makes spawning migrations up river to find gravel bars to deposit eggs (ODWC, 2005). Lake Hudson is home to a significant paddlefish population. The

numbers of paddlefish migrating up the Grand/Neosho River in the springtime make this river system one of the top five paddlefish fisheries in the nation.

5.5 Avian Species

Raptors, such as barred owl, red-tailed hawk, and red-shouldered hawk occur in both upland and bottomland forests. Song birds of the wooded lots include tanagers, nuthatches, warblers, and woodpeckers typical of the eastern deciduous forests. Grassland birds present in the prairie habitat include horned lark, grasshopper sparrow, meadowlark, dickcissel, and bobolink. Predatory birds in the grasslands consisted of short-eared owl, northern harrier, and rough-legged hawk. Bald eagles over-winter at Lake Hudson, and benefit from the fish passed through the hydro plant (Lish, 1987). Game birds found at Lake Hudson include bobwhite quail, wild turkey, mourning dove, and waterfowl.

Lake Hudson is an over-wintering and migratory stop for shorebirds and waterfowl. Cormorants, pelicans, egrets, and herons are among the non-game birds that show up on Lake Hudson annually. A diverse array of game waterfowl such as geese and dabbling, diving, perching, sea, and stiff-tailed ducks also occur on Lake Hudson during migration. Mallards are the only dabbling duck that over-winter on Lake Hudson. Mallards are the most abundant duck seen on the Lake with a peak number in December. Canada geese and wood ducks live on the Lake throughout the year.

5.6 Mammals

White-tailed deer, striped skunk, raccoon, fox squirrel, Virginia opossum, eastern cottontail, armadillo, and gray and red fox inhabit the upland deciduous forest in the Project Vicinity. The bottomland forests contain all of these species, plus muskrat and beaver. Common species associated with the grassland/savannah are the least shrew, deer mouse, black-tailed jack rabbit, and badger.

5.7 Reptiles and Amphibians

A variety of frogs, toads, salamanders, lizards, turtles, and snakes are found in the Project vicinity. The amphibians include species such as the American toad, spadefoot toad, tree frogs, and narrow-mouthed. The turtle community includes snapping turtles, mud turtles, softshell turtles, and a diversity of slider, map, and box turtles. With the exception of the box turtles, most of the turtle community is highly aquatic. Lizard species include the western slender glass lizard, collard lizard, Texas horned lizard, and diversity of skinks. Common snakes include species such as rat snakes, water snakes, bullsnakes, and venomous snakes such as copperheads, western cottonmouths, timber rattlesnakes, and western pygmy rattlesnakes. (Erickson and Leslie, 1988)

5.8 Threatened and Endangered Species

Pursuant to Article 403 of the Project license, GRDA has adopted a Threatened and Endangered Species Plan. This plan provides protection for several species known or suspected to exist in the Project Vicinity including the gray bat (*Myotis grisescens*), the bald eagle (*Haliaeetus leucocephalus*), and the American burying beetle (*Nicrophorus americanus*).

5.8.1 Gray Bat

Gray bats inhabit limestone karst areas of the southeastern United States. This species migrates seasonally between winter (hibernating) and summer (maternity) caves (USFWS, 1982). Gray bats forage almost exclusively over water along river or reservoir edges bordered by forest (LaVal *et al.*, 1977), and as such, maternity colonies are typically located in close proximity to such features (Tuttle, 1976). Gray bats are known to frequent maternity caves located north of the Project during the summer months (USFWS 1982). However, it is not known whether these bats forage within the Project area. At present, there are no known gray bat caves located within the Project boundary.

If development is proposed in the vicinity of potential gray bat caves, both USFWS and ODWC will be contacted for further consultation. If it is determined by USFWS and ODWC that gray bat surveys are warranted, GRDA will insure that surveys are conducted at suspected cave sites. Because gray bats are sensitive to human disturbance, presence/absence surveys of suspected gray bat caves will be conducted by USFWS and/or their representatives.

If USFWS and/or their representatives confirm the presence of an occupied gray bat cave within the project boundary, further consultation with USFWS and ODWC will be necessary to determine the best course of action to protect the gray bat cave from human disturbance. Upon confirmation, the cave and surrounding area will be designated in the Stewardship SMC and no development will be permitted.

In the unlikely event that GRDA is responsible for the destruction of gray bat habitat due to future construction activities, GRDA will consult with the USFWS and ODWC as to best means to mitigate for the loss of gray bat habitat. This may require GRDA to enhance known riparian corridors, used by gray bats, by planting native species of trees.

5.8.2 Bald Eagle

Lake Hudson is an important wintering area for bald eagles. Though no longer listed as threatened or endangered, the bald eagle is still protected under federal law. Most of the wintering eagles use a large communal roost located near Cherokee State Park at the north end of the reservoir.

The Article 403 Plan requires two annual surveys be conducted to locate and record any new and/or active bald eagle nests. Additionally, the Article 403 Plan calls for the creation of two potential bald eagle nest sites. These locations shall be designated under the Stewardship SMC and will be afforded the additional protection provided for in the Article 403 Plan.

The Article 403 Plan requires the establishment of buffer zones around any roost or nest sites at the Project. A 200 meter (660ft.) line-of-sight distance must be maintained around active bald eagle nests and a 100 meter (330 ft.) out-of-sight distance must be maintained around bald eagle nests. No new development will be allowed within these buffer zones.

5.8.3 American Burying Beetle

American burying beetles, the largest of North America's 32 bury beetles, historically occurred in 35 states, but are currently found in only seven states, including Oklahoma. They rely on carrion for both sustenance and reproduction. No confirmed sightings of American burying beetles have occurred in the Project Vicinity. The closest established population is located at Camp Gruber, which is approximately 40 miles to the south of the Project. According to USFWS this population has remained in that location for the past 11 years without any significant movement to the surrounding areas (USFWS, June 13, 2007).

Under the Article 403 Plan, a survey for the presence or absence of the American burying beetles must be conducted whenever ≥ 1.2 acres of suitable habitat is disturbed. Further consultation with USFWS will take place before surveys are conducted. Surveys will be conducted in accordance with the American Burying Beetle *Nicrophorous americanus* Survey Guidance for Oklahoma (USFWS June 13, 2007). Surveys will be conducted by GRDA personnel who are properly trained and permitted by both USFWS and ODWC to conduct surveys, and trap, relocation, and baiting away procedures.

If American burying beetles are detected within the Project boundary, both USFWS and ODWC will be notified and further consultation will take place before any further action is taken. All survey results will be forwarded to USFWS species lead for the American burying beetle at the Tulsa field office. Upon verification of their presence, the Commission will be notified by phone within three working days, and a report will be sent to the Commission within a week of discovery.

5.9 Botanical

The Project lies between two physiographic and ecological regions. The eastern portion of the area consists of the Ozark Highlands, which is characterized by an irregular and rugged terrain, and is more heavily forested than adjacent regions. The Cherokee Prairies (also known as the Caves and Prairies Ecoregion) are located to the west. The topography at the project is gently rolling with east-facing escarpments and isolated buttes capped by resistant sandstone (GRDA, 2002). The prairie region is characterized by a mosaic of grasslands and forest. The project is located in a rural farming and ranching area.

Predominant native vegetation communities in northeastern Oklahoma include bluestem prairie, cross timbers, and southern floodplain forest. Much of the lands surrounding the project area have been cleared and converted to agricultural uses, so relatively little of the original cover types remain. Marginal agricultural lands have been allowed to revert to early successional communities or unimproved pasture.

Most of the original bluestem prairie within the project area has been replaced by cropland as it generally occurs on level to gently rolling uplands with fine-textured soils, such as occur in the Cherokee Prairies to the west side of Lake Hudson and the Grand River. The patches of bluestem prairie habitat that remain are characterized by a dense cover of tall grasses and some forbs with very little shrub and tree growth. Dominant species include little bluestem, big bluestem, switchgrass, and Indian grass (GRDA, 2002).

Cross timbers, the dominant forest type throughout northeastern and central Oklahoma, is a mixture of prairie and broadleaf deciduous forest occurring as either single trees (savannah) or in dense stands. Dominant species include post oak, blackjack oak, little bluestem, and other prairie species. Unlike bluestem prairie, this cover type occurs on poor, sandy and rocky soils and has not been heavily cultivated.

Floodplain forests in the project area occur along the margins of streams and rivers, typically occupying level benches subject to periodic flooding. Broadleaf deciduous trees and shrubs, including sugarberry, American elm, red mulberry, green ash, and black walnut, dominate this cover type. Floodplain forests can be uplands or wetlands, depending on the frequency and duration of flooding. This community occurs on fertile, alluvial soils and has therefore typically been cleared for agriculture.

Wetlands are common along the Lake Hudson shoreline and surrounding area. Based upon the FWS wetlands classification system and National Wetland Inventory wetlands mapping of the area, a wide variety of wetland types exist along the shores of Lake Hudson and its major tributaries.

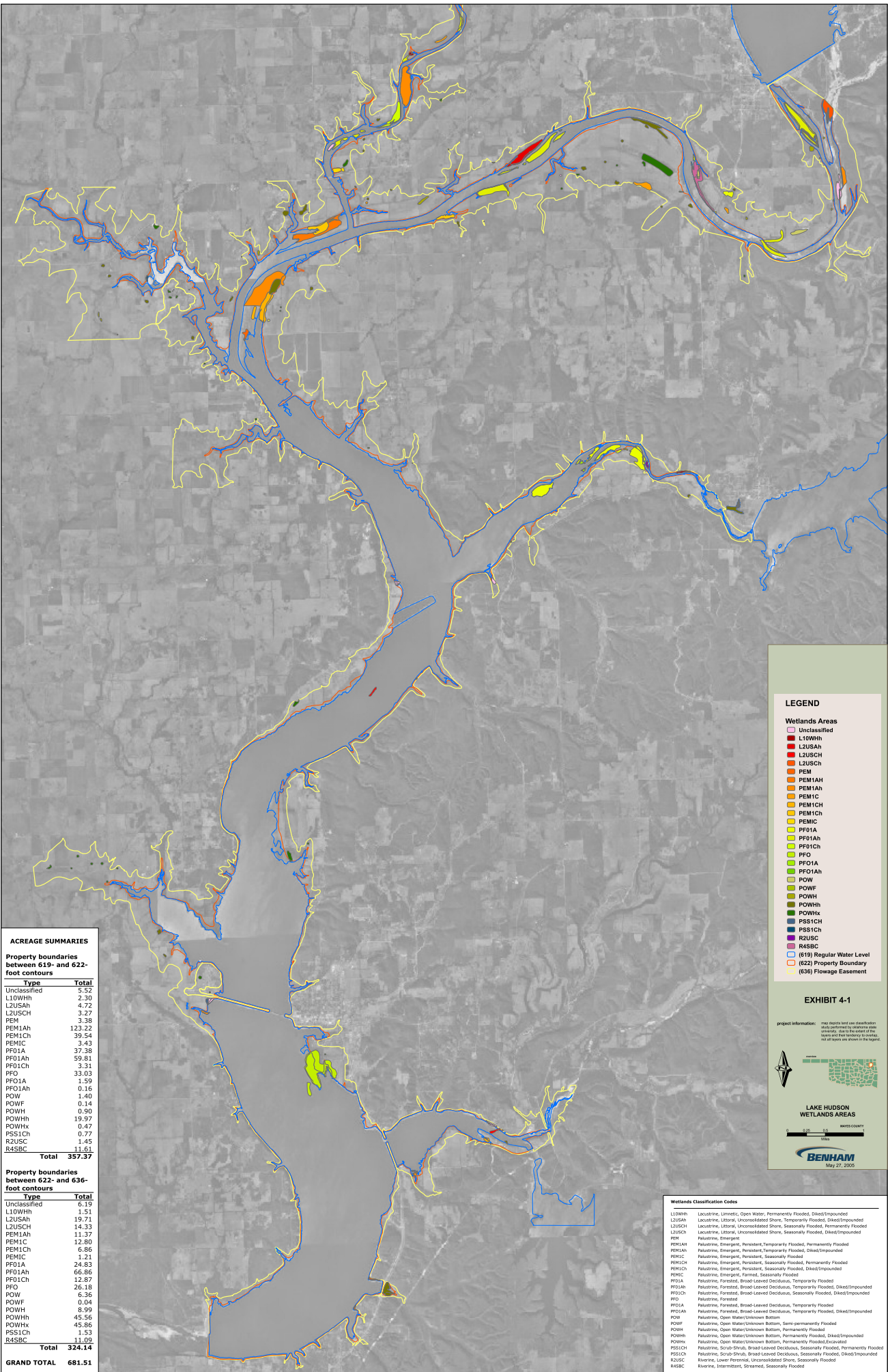
5.10 Socioeconomics

The Project is located in Mayes County in northeastern Oklahoma. The 2000 population for Mayes County was approximately 38,369 and is projected to grow to 50,300 by 2030. The county's largest community is Pryor, with a population in 2000 of 8,659. Other communities near Lake Hudson include Adair, Choteau, Locust Grove, Salina, Spavinaw, and Strang.

Mayes County has an approximate labor force of 17,380. The per capita income is \$15,350. The unemployment rate for Mayes County is 5.7 per cent. The primary industries contributing to employment in the region are educational, health and social services, and manufacturing. The MidAmerica Industrial Park, located in Mayes County between the towns of Pryor and Chouteau, is the largest industrial park in the state of Oklahoma. Approximately 80 companies employ more than 4,500 at the park.

The recreation and tourism industry plays an important role in the local economy as well. Many seasonal businesses are established to capitalize on the tourism industry and support the interests and needs of the visitors and permanent and seasonal residents alike. These businesses include fast food establishments, gas stations, shops, marinas, retail, etc., all providing employment opportunities and contribute to economic stability of the area.

It is generally acknowledged that property values are, in part, a function of location, and that includes proximity to water bodies. In Oklahoma, the availability of waterfront property is relatively limited when compared to land locked parcels. Thus, one would expect land values near Lake Hudson would be different from land values that are distant from water bodies. Although detailed information specific to Lake Hudson is not available, there is information available that suggests that land values in the vicinity of Lake Hudson are greater than those values elsewhere.



ACREAGE SUMMARIES

Property boundaries between 619- and 622-foot contours

Type	Total
Unclassified	5.52
L10WHH	2.30
L2USAH	4.72
L2USCH	3.27
PEM	3.38
PEM1AH	123.22
PEM1CH	39.54
PEM1C	3.42
PF01A	37.38
PF01Ah	59.81
PF01Ch	3.31
PFO	33.03
PFO1A	1.59
PFO1Ah	0.16
POW	1.40
POWF	0.14
POWH	0.90
POWHh	19.97
POWHx	0.47
PSS1Ch	0.77
R2USC	1.45
R4SBC	11.61
Total	357.37

Property boundaries between 622- and 636-foot contours

Type	Total
Unclassified	6.19
L10WHH	1.51
L2USAH	19.71
L2USCH	14.33
PEM1AH	11.37
PEM1C	12.80
PEM1Ch	6.86
PEM1C	1.21
PF01A	24.83
PF01Ah	66.86
PF01Ch	12.87
PFO	26.18
POW	6.36
POWF	0.04
POWH	8.99
POWHh	45.56
POWHx	45.86
PSS1Ch	1.53
R4SBC	11.02
Total	324.14

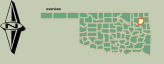
GRAND TOTAL 681.51

LEGEND

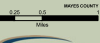
- Wetlands Areas**
- Unclassified
 - L10WHH
 - L2USAH
 - L2USCH
 - PEM
 - PEM1AH
 - PEM1Ah
 - PEM1C
 - PEM1Ch
 - PEM1C
 - PF01A
 - PF01Ah
 - PF01Ch
 - PFO
 - PFO1A
 - PFO1Ah
 - POW
 - POWF
 - POWH
 - POWHh
 - POWHx
 - PSS1Ch
 - PSS1Ch
 - R2USC
 - R4SBC
 - (619) Regular Water Level
 - (622) Property Boundary
 - (636) Flowage Easement

EXHIBIT 4-1

project information: map shows wetland classification study performed by observers only. It is not to be used for regulatory purposes or as a basis for any other action.



LAKE HUDSON WETLANDS AREAS



BENHAM
May 27, 2005

Wetlands Classification Codes

L10WHH	Littoraline, Littoral, Open Water, Permanently Flooded, Diked/Impounded
L2USAH	Littoraline, Littoral, Unconsolidated Shore, Temporarily Flooded, Diked/Impounded
L2USCH	Littoraline, Littoral, Unconsolidated Shore, Seasonally Flooded, Permanently Flooded
L3USCH	Littoraline, Littoral, Unconsolidated Shore, Seasonally Flooded, Diked/Impounded
PEM	Palustrine, Emergent
PEM1AH	Palustrine, Emergent, Persistent, Temporarily Flooded, Permanently Flooded
PEM1Ah	Palustrine, Emergent, Persistent, Temporarily Flooded, Diked/Impounded
PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded, Permanently Flooded
PEM1Ch	Palustrine, Emergent, Persistent, Seasonally Flooded, Diked/Impounded
PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded, Diked/Impounded
PF01A	Palustrine, Emergent, Filled, Seasonally Flooded
PF01Ah	Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded
PF01Ch	Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded, Diked/Impounded
PFO	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded, Diked/Impounded
PFO1A	Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded
PFO1Ah	Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded, Diked/Impounded
PFO1Ch	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded, Diked/Impounded
PFO	Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded
POW	Palustrine, Open Water/Unknown Bottom, Semi-permanently Flooded
POWF	Palustrine, Open Water/Unknown Bottom, Semi-permanently Flooded
POWH	Palustrine, Open Water/Unknown Bottom, Permanently Flooded
POWHh	Palustrine, Open Water/Unknown Bottom, Permanently Flooded, Diked/Impounded
POWHx	Palustrine, Open Water/Unknown Bottom, Permanently Flooded, Excavated
PSS1Ch	Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded, Permanently Flooded
PSS1Ch	Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded, Diked/Impounded
R2USC	Riverine, Lower Riverine, Unconsolidated Shore, Seasonally Flooded
R4SBC	Riverine, Intermittent, Streamed, Seasonally Flooded

6.0 SUMMARY OF RECREATION MANAGEMENT PLAN

On August 9, 2008, GRDA filed a Recreation Management Plan with FERC for approval. The RMP is a stand-alone document available for review from GRDA on GRDA's website (www.grda.com), or by calling 918-782-9594 or 918-256-5545 during normal business hours. The following sections summarize the RMP.

6.1 Recreation Management at Lake Hudson

GRDA shares responsibility and authority for recreation management on Lake Hudson with the ODWC, the Oklahoma Tourism and Recreation Department (OTRD), and several local communities. Each entity has differing responsibilities and management authorities.

GRDA manages recreation at the lake in accordance with state and federal regulatory requirements and the goals and objectives established by its Board of Directors. Pursuant to the Oklahoma Statutes, GRDA is charged with the management of public recreation on the lake, and oversight and permitting of boating activity and dock structures. Article 407 of the FERC license for the Project provides authority to GRDA for ensuring adequate and appropriate public access to Project resources and requires that GRDA manage and monitor that access and use as appropriate, providing periodic reports to FERC documenting the level of recreation use at the Project every six years.

GRDA's management goals include:

1. Provision of adequate, barrier-free public recreational access to Project lands and waters;
2. Support of recreation patterns that reflect the established recreation environment; and
3. Management of public, private and commercial access to and use of Project lands and waters in a safe and responsible manner.

GRDA has established policies and implementing regulations to facilitate achieving these goals. The following is a summary of GRDA's activities that support recreational management at Lake Hudson:

- Lake Patrol – The Lake Patrol is responsible for enforcement of rules and regulations on the water and on GRDA owned lands, promoting safety, permitting docks, and boat inspections;
- Recreation Sites – GRDA provided lands and access for the establishment of state parks at Lake Hudson. GRDA continues to cooperate with the state and with local communities to develop and maintain public recreation sites;
- Public Outreach and Education – GRDA maintains a public education program to inform citizens and tourists of the locations of public access sites, boating regulations, etc.
- Navigation Aides – GRDA maintains navigation aids on Lake Hudson;
- Boating Management – GRDA establishes and enforces boating regulations for Lake Hudson;
- Recreation Monitoring – GRDA selected social and environmental indicators to monitor as a tool for managing recreational boating and monitoring the recreational carrying capacity of Project waters (see Section 5.6 for additional detail);
- Improvement of fish nursery habitat – GRDA supports the improvement of fish nursery habitat through its Aquatic Vegetation Program, and placement of submerged brush piles and artificial habitat to provide fish habitat; and

In carrying out the above activities, GRDA addressed, and continues to address, all of the implementation actions identified in the Recreation Plan that are specific to recreational use of Lake Hudson.

6.2 Oklahoma Department of Wildlife Conservation

The ODWC manages fisheries, establishes hunting and fishing regulations for state waters, including Lake Hudson, and may assist other state agencies or other entities

in the establishment, maintenance and operation of educational facilities, recreational facilities and hunting and fishing facilities. Specific fish and wildlife management goals and activities related to recreation at the Markham Ferry Project include management of the recreational fishery (hybrid striped bass, crappie, bass, and paddlefish) through fishing regulations.

6.3 Oklahoma Tourism and Recreation Department

The State of Oklahoma has prepared a Statewide Comprehensive Outdoor Recreation Plan (SCORP) that provides updated information on the state of Oklahoma's parks, the quantity and quality of recreation opportunities, and an assessment of management topics to address in the future. Oklahoma's SCORP, written in 2001 and revised in 2002, identifies its goals for state parks, including those on Lake Hudson.

6.4 Recreation Sites

There are public, commercial and private entities that provide access to Lake Hudson. GRDA, the Oklahoma Tourism and Recreation Department (OTRD) and local municipalities provide public access. Commercial businesses, such as marinas provide both fee and non-fee services to the public. Private access is available from individual shorefront properties, neighborhood associations and private clubs.

6.4.1 Public Recreation Sites

There are four access areas provided by GRDA, three state parks, and approximately 14 municipal parks providing access to Lake Hudson. There are approximately 12 public boat ramps providing access to Lake Hudson.

GRDA maintains the boat launches it provides. OTRD operates the state parks; municipalities manage the local parks. Numerous other "volunteer" public access points correspond with rights-of-way and old roadbeds scattered throughout the area. Such locations are undocumented, usually not maintained at

any specified level of care, and used primarily by local residents and those knowledgeable of the region.

6.4.2 GRDA Boat Ramps

There are four boat ramps provided by GRDA that provide access to Lake Hudson. Use of these launches is free to the public. These include Boatman Ramp, Covey's Cove Ramp, Mud Flats Ramp, and Snowdale State Park Ramp.

6.4.3 State Parks

OTRD operates two state parks on the shores of Lake Hudson, and one state park east of the lake. These parks are Snowdale State Park, Cherokee State Park, and Spavinaw State Park

6.4.4 Other Public Access

Various municipalities and organizations maintain or manage the following community parks, access areas, and launches. These include Salina City Park and Lion's Club Cove Public Access.

6.4.5 Private Recreation Access

GRDA completed a shoreline development inventory in 2006. This inventory included documentation of private facilities such as boat docks and ramps. Currently, there are approximately 336 private docks and 93 private boat ramps on Lake Hudson. These docks and ramps are the primary access to the Lake for most of the residents.

Residential boat ramps generally provide lake access for individual households or small groups of households. They typically consist of an access roadway and boat ramp, with no parking area or other supporting facilities.

6.4.6 Commercial Development

Currently, there are 31 commercial docks on Lake Hudson that provide roughly 226 slips for boats of various sizes. In addition, records show approximately 12 commercial boat ramps.

6.5 Estimates of Recreational Use

Lake Hudson is a popular recreation spot for locals and tourists alike. The reservoir is known for bass fishing and hosts numerous bass tournaments each year. Most boats utilizing the reservoir are angling boats, with occasional ski boats, jet boats, and large (over 30 feet) cabin boats. There are numerous navigational hazards upstream of Strang Bridge, the most common of which are stumps that affect navigation when the reservoir is low. Boating at Lake Hudson occurs year round, though the primary recreation season extends from mid to late May through early September.

Fishing is a year round activity on Lake Hudson. Secluded coves, boat docks, fish shelters, and heated docks provide fishing opportunity to all segments of the lake. Lake Hudson supports a high quality fishery for largemouth bass, hybrid striped bass, white bass, crappie, catfish and paddlefish.

6.6 Planning for the Future

GRDA believes that the current public access provides adequate access to the lake. GRDA will continue to provide public recreational access at the sites it maintains. GRDA does not monitor the need for additional commercial services; market forces define the supply and demand of commercial services. Market forces also guide private residential development, while the SMP guides development within the Project.

GRDA will monitor recreational use and management needs as they pertain to the Project. Particular items of interest to be monitored include:

- Water quality in coves where recreational boating use is heavy;

- Boat density by activity over time to identify changing use patterns;
- Available facilities and public access;
- The location and cause of boat accidents;
- The number of annual fishing tournaments and the number of boats participating;
- The number of annual regattas and the number of boats participating; and
- Opinions and preferences of Lake Hudson boaters.

Should monitoring demonstrate a need for additional recreational access, GRDA will hold public meetings to describe the issue and solicit input from the public. GRDA will then review the potential solutions and develop a plan to implement access. Any additional development on the part of GRDA will follow the guidelines found in GRDA's SMP for the Project.

7.0 *SHORELINE MANAGEMENT GUIDELINES FOR PROJECT LANDS*

Enjoyment and use of Lake Hudson by residents and visitors alike relies, in part, on facilities, structures, and other developments that permit access to the shoreline and the lake and which provide necessary or requested services for visitors and residents. As development pressure and general use of the Project increases, the potential for conflict regarding the types, sizes, and general acceptability of particular uses also increases. Overcrowding, restricted shorefront/waterway access, and loss of aesthetic values are all potential outcomes of unrestricted development of shorefront uses. Additionally, the potential for environmental degradation increases if unrestricted or unregulated development occurs without clear guidelines and standards.

This section of the SMP provides a comprehensive framework for determining the types of shoreline facilities and activities that are appropriate within specific areas of the Project boundary in relation to existing uses and environmental resources. This system was developed to protect and enhance the Project's land and water resources while providing for hydropower operations, future recreational enhancements, and lake access by the general public and adjacent landowners. The two components of this system are the Shoreline Management Classifications (SMC) and the Allowable Use Categories (AUC). Shoreline Management Classifications are designations applied to Project lands that define GRDA's management goals for the area and identify generally permitted uses through reference to the Allowable Use Categories. The Allowable Use Categories define common use types and identify additional considerations for determining site specific appropriateness.

GRDA made qualitative evaluations of existing shoreline uses and environmental resources immediately adjacent to and/or within the Project. The basis of the evaluation was a series of maps produced using existing GIS databases that included palustrine wetlands, contour and bathymetric data, and aquatic and terrestrial habitats considered significant by state and federal wildlife agencies. GRDA compared these resources with existing shoreline development data obtained by GRDA staff through a lake-wide global positioning system effort, review of aerial photography, and the personal and corporate knowledge of GRDA staff and stakeholders. This analysis, made in light of

environmental, aesthetic, and social values and shoreline access expectations, led to the identification of the following SMC and AUC.

7.1 Shoreline Management Classifications for Lake Hudson

7.1.1 Project Operations Areas

Project Operations Areas are reserved for current and potential future Project operation and related functions. This category includes all Project lands used for hydroelectric generation, dams, spillways, switchyards, transmission facilities, right-of-way areas, security lands, and other operational areas. While sometimes occurring within or adjacent to other use areas, these specific shoreline uses require a degree of separation from other activities to ensure public safety or to assure the security of the Project infrastructure.

7.1.2 Municipal / Public Use Areas

Municipal/Public Use Areas are for uses that serve a public purpose or governmental function such as state parks, public beaches, municipal water intake/outflow, transmission/utility line crossing, roads, bridges, and gas/oil pipelines. Typically, public agencies, governmental bodies, or utility providers manage the areas. GRDA will not permit new uses, outside the scope of the existing management objective of the managing entity at these locations. GRDA does not permit private residential or commercial activities at these locations unless they are consistent with the management policies of the area and the operating body requests the new use.

7.1.3 Stewardship Areas

Stewardship Areas contain important or sensitive resources that require special attention, consideration and protection in order that their significant environmental, cultural, or aesthetic contributions not be threatened, diminished, or lost. Stewardship areas include certain resources protected by state and/or

federal law, natural or cultural features considered important to the area or natural environment, and areas maintained for habitat, water quality protection and general aesthetics. These areas may include palustrine wetlands² and sensitive aquatic or terrestrial habitat. All currently undeveloped islands owned by GRDA are also included in the Stewardship Area classification.

While not specifically identified within the Stewardship classification, GRDA provides protection to historic and culturally sensitive areas within the Project (Section 9.10). Because of the sensitive nature of cultural or historic resources, their locations may not be public information. GRDA maintains data supplied by the State Historic Preservation Office (SHPO) and the Oklahoma Archeological Survey (OAS) that identifies potential and significant cultural resource sites. GRDA will review all ground-disturbing activities to determine if there is a possible adverse effect on these resources. Potential effects to cultural or historic resources may result in the denial of a permit or require compliance with protection and mitigation measures suggested by the SHPO or the OAS.

It is unlikely that GRDA will permit new uses in Stewardship areas, as it intends to manage these lands exclusively for the benefit of these unique resources. GRDA may permit temporary activities that do not require any form of construction, long-term use, or that may result in any adverse effect on the protected resource. Examples of temporary activities may include bird-dog trials, one-time outdoor athletic events, and educational projects or programs such as those associated with schools, universities, service clubs or youth organizations. These temporary permits will be highly restrictive to avoid negative effects to these resources.

Any new “permanent” uses proposed for a designated Stewardship Area will be considered only if the proponent of the activity:

² For the purpose of the SMP, GRDA uses UFSWS National Wetland Inventory data to identify wetland areas. This identification does not preclude the right or responsibility of adjacent property owners to further delineate wetlands in support of permit applications for facilities or uses within the Project boundary.

1. provides compelling evidence of hardship or establishes that a considerable public interest exists for allowing the use that substantially outweighs the interest in preservation;
2. justifies the Project location as the only feasible alternative; and
3. provides specific protection, mitigation and/or environmental enhancements as may be prescribed by GRDA or through any consultation with jurisdictional agencies.

All proposed uses in Stewardship Areas are subject to a consultation process involving state and federal resource agencies and may involve development of an Environmental Assessment or Environmental Impact Statement by Project proponents.

Uses in Stewardship Areas in existence at the time of the enactment of the SMP shall be allowed to continue, subject to the following conditions:

1. The use was properly permitted at the time of the SMP's enactment,
2. The use is maintained in accordance with guidelines provided by GRDA,
3. The continuation of the use does not pose irreparable harm to the area.

7.1.4 Responsible Growth Areas

Responsible Growth Areas are Project lands GRDA intends to manage to accommodate reasonable demands for public and private uses that are conducive to the protection and enhancement of Lake Hudson's environmental, recreational, and socioeconomic resources. Designation of Project land as a Responsible Growth Area does not imply approval of a particular use or exempt an applicant from permitting requirements.

Responsible Growth Areas contain existing residential and/or commercial uses and areas of limited or no development not otherwise classified in this SMP. Responsible Growth Areas do not contain sensitive or important resources that require the degree of protection afforded by the Stewardship SMC.

Generally, Responsible Growth Areas are available for the uses detailed in the Commercial and Residential Allowable Use Categories (Sect. 7.2). However, certain allowable uses may not be appropriate in some Responsible Growth Areas, given the location's characteristics and prevailing use patterns.

Prior to allowing new uses in these areas, GRDA will consider the following:

- Characteristics of existing permitted uses and recreational uses within a half-mile radius;
- Shoreline topography and geometry;
- Impact on safety and navigation;
- Environmental effects;
- Recreational use effects; and
- Potential economic development and tourism benefits.

7.2 Allowable Use Categories

The following Allowable Use Categories and definitions capture the majority of allowed uses within the Project. GRDA recognizes other current or potential future uses may fall outside these definitions. In some instances, GRDA may permit a use determined to have such a limited impact as to have little or no effect on resources and existing uses in any management classification. Other more intensive uses may have more significance/effect on a management area and may require more scrutiny and justification through GRDA's permitting process or be denied altogether.

7.2.1 Commercial Uses

Commercial uses of the Project generally do not occur distinct from other uses on Lake Hudson. They are scattered along the shoreline and often are adjacent to other uses. Commercial uses typically have more intensive use patterns than residential or municipal/public uses. Additionally, commercial facilities, particularly those with multiple docks, slips, and moorings, are

generally significantly larger than residential uses. Commercial uses may have a greater potential for affecting navigation on the lake, particularly if they are located in narrower coves and inlets. Therefore, these uses are best located in areas with adequate shoreline and water depth to allow construction and operation with minimal effect on environmental resources. Thus, development of new commercial uses should focus on areas that currently support similar uses, in areas that could support future high/intensive uses, and in locations separated from distinctly residential uses.

Existing and potential Commercial Uses include:

- Full Service Marinas
- Commercial docks >10 slips
- Commercial docks ≤ 10 slips
- Courtesy docks
- Boat ramps
- Marine railways and trams
- Breakwaters
- Shoreline stabilization
- Dredging/Channeling
- Commercial water withdrawal (*e.g.* golf courses)
- Vegetation Management
- Agricultural uses

7.2.2 Residential Uses

GRDA will continue to permit uses associated with private residential or residential associations' uses. However, certain cove areas, shoreline locations with shallow water, areas considered congested or which support important or sensitive resources may be inappropriate for new uses related to residential development. For new developments, GRDA will place particular emphasis on consolidating uses to minimize shoreline effects for both single and multi-family shoreline uses.

Existing and potential Residential uses include:

- Private Docks
- Community Docks
- Multi-boat slips ≤ 10
- Multi-boat slips >10
- Boat ramps
- Marine railways & trams
- Breakwaters
- Shoreline Stabilization
- Vegetation Management
- Dredging/Channeling
- Residential Water Withdrawal

7.2.3 Municipal/Public Uses

In general, municipal and/or public uses as identified in Section 7.2 are site-specific uses that occur distinct from other uses. GRDA developed definitions and identified specific areas within or adjacent to the Project boundary where known municipal/public uses occur. In doing so, GRDA acknowledges that a degree of separation from other uses may be necessary for the safe operation and/or delivery of service associated with these types of uses. Any proposed municipal or public use area proposed outside an existing designated area must be able to demonstrate that the use is in the public interest.

Municipal/Public Uses include:

- Public/municipal water withdrawal/discharge
- Water treatment systems
- Parks
- Boat Ramps
- Docks
- Wildlife management areas

7.3 Shoreline Management Classification Mapping

GRDA's GIS, local knowledge of both GRDA staff and stakeholders, and site-specific verification served as the basis for determining the most appropriate and pertinent locations to apply the Shoreline Management Classifications within the Project. Not all shoreline areas that generally meet the SMC definitions necessarily fall into that particular classification. As an example, an area may have one or more environmental characteristics that fall into the Stewardship definition; however, *existing* commercial or residential use within that particular area precludes application of the Stewardship classification to that area. Appendix B contains the SMC maps.

While GRDA developed the mapping of Shoreline Management Classifications as comprehensively as possible, in some cases, the level of information available may not allow completely accurate identification of property boundaries or pinpoint Stewardship areas. Therefore, property owners who believe GRDA applied a particular SMC erroneously to the shoreline adjacent to their properties may contact GRDA for a site-specific review and verification of that classification, should they wish to propose a project or use that does not qualify as an allowable use within the existing SMC.

GRDA will maintain a current, updated database showing the Shoreline Management Classifications at Lake Hudson. These maps will be available from GRDA's Department of Ecosystems Management. As discussed in Section 11.0, minor updates to the mapping that supports the SMC will occur periodically, with a lake-wide review of all SMC every six years.

Lake Hudson Shoreline Management Classifications by Distance and Percentage		
SMC	Distance	Percentage
Stewardship	94.67 miles	49.15 %
Responsible Growth	86.93 miles	45.13 %
Municipal/Public Use	7.94 miles	4.12 %
Project	3.06 miles	1.60%
Total	192.60 miles	100%

8.0 *ADAPTIVE MANAGEMENT FOR AREAS OF CONCERN*

Some shoreline areas along the lake have or will experience greater development pressures and heavier use. No current data suggests that any shoreline areas along the lake are completely “built out” (with no additional shoreline available for development). However, given current/anticipated levels of new development, GRDA expects that private property adjacent to the Project boundary will continue to have additional growth that may require specific and distinct management attention. Not all areas of the shoreline develop in the same manner, or have identical growth issues. Not all potential growth is negative or unwelcome by adjacent property owners, however GRDA strives to maintain a balance among acceptable growth, access to and enjoyment of the Project by the public, and protection of environmental resources. As such, GRDA, proposes the use of adaptive management strategies to, where appropriate, monitor, analyze, and subsequently manage growth and development in a flexible, yet locally relevant manner.

Available data do not support listing any area of the lake as requiring special management because of negative environmental or social effects resulting from over-development or over-use. Neither does GRDA support the assertion that any shoreline area has reached its maximum development potential; however, public comment indicates that the potential for continued growth and heavy use of the lake shoreline is a concern. After examining several potential strategies for managing and controlling growth on the lake, GRDA concluded that development of a lake-wide policy to contain growth or set limits on development beyond the existing SMC was not equitable to a majority of adjacent property owners or non-resident users of the lake.

Adaptive management is a dynamic monitoring and policy implementation process that allows GRDA to respond specifically and effectively to changing conditions in a proactive, yet data supported manner. Using this type of strategy allows GRDA to assess environmental and social conditions and implement additional management conditions where and when necessary, while acknowledging that these conditions may be temporary and changeable. Resource management professionals often define adaptive management as "... a systematic process for continually improving management policies

and practices by learning from the outcomes of operational programs”. Implementation of an adaptive management policy allows GRDA to continue to assess environmental and social conditions, analyze and respond directly to specific site conditions, and build upon these efforts to continue to manage areas of concern. The key characteristics of GRDA’s adaptive management include:

- a) Acknowledgement of uncertainty about what policy/management strategy is “best;”
- b) Selection of appropriate policies or management practices;
- c) Development and implementation of a site-specific plan;
- d) Monitoring of the key response indicators identified in the plan;
- e) Analysis of the outcome in consideration of the original objectives; and
- f) Incorporation of the results into future decisions.”³

GRDA will identify areas of concern with the assistance of public input. Should communities believe their particular cove or shoreline warrants monitoring, GRDA will consider such proposals. The onus to petition GRDA is on local citizenry. Prior to implementing any additional monitoring, GRDA will hold a public hearing, at which a majority of local residents must support the inclusion of that particular location. The objectives of these discussions will be to identify the specific concerns of adjacent property owners and develop site-specific parameters GRDA can employ to monitor and analyze the area of concern. At the conclusion of particular monitoring efforts, GRDA will meet again with residents, discuss its findings, and develop appropriate new management strategies. GRDA stresses that inclusion in the monitoring program may not result in immediate modification of management strategies, nor does it guarantee implementation of new management policies at the conclusion of the monitoring.

³ Modified from Nyberg, J.B. and B. Taylor. 1995. Applying adaptive management in British Columbia’s forests. In Proc. FAO/ECE/ILO International Forestry Seminar, Prince George, B.C. pp 239-45 Can For Serv., Prince George, B.C.) <http://www.adaptivemanagement.net/probe.doc> 10/17/06

9.0 *NEW SHORELINE USES EVALUATION PROCESS*

By using the SMC maps (Appendix B), adjacent property owners and potential shoreline developers can identify their property in relation to the Project boundary and determine which management classifications occur within the Project adjacent to their property and the corresponding allowable uses. Section 10.0 describes general permitting standards that are applicable to the allowed use of their proposed project and summarizes applicable permit application procedures. Some proposed uses will receive more scrutiny, require more supporting documentation, or may require evaluation by GRDA on a case-by-case basis depending on the type of proposed use and the SMC for the area.

GRDA will review permit applications for new uses on a case-by-case basis under these guidelines and GRDA's most current permitting program at the time of the application. In its review of permit applications, GRDA will call upon ecosystems management staff and/or other relevant resource agency specialists to provide input on projects located within management classifications with resource specific restrictions. In addition to evaluating uses under this scenario, GRDA may also assist permit applicants in identifying other local, state, regional, and federal permits that may be required for proposed new uses; however, the onus remains on the applicant to follow through with application for other relevant permits and agency correspondence.

Regardless of the proposed uses by an adjacent property owner, GRDA strongly encourages all property owners to contact GRDA permitting staff at least six months prior to submittal of any permit application. General permitting standards (Section 10.0) are subject to change outside the scope of this SMP and any permit applicant should contact GRDA directly to verify what the most current standards and specific requirements are for their particular application. Additionally, GRDA encourages project proponents to schedule an onsite visit with GRDA staff to discuss their proposed projects during the project-planning phase. While GRDA is not responsible for enforcing regulations under other agencies jurisdictions, GRDA will not issue permits until a Project applicant provides proof of receipt of all applicable local, state, and federal permits.

9.1 Evaluation Process

Both proponents of new uses and GRDA have a responsibility to follow correct procedures related to project planning, review, and construction. General guidelines follow.

9.1.1 Project Proponent

Applying for a Permit

- 1) Identify type of project(s) and activities within the Project boundary;
- 2) Determine the SMC (Section 7.1);
- 3) Determine the Allowable Uses within this Management Classification (Section 7.2);
- 4) Determine which permitting standards and requirements pertain to the proposed new facility or use (Section 10.0);
- 5) Contact GRDA for verification and permit application information;
- 6) Phase I - Prepare and submit a complete application to GRDA with the necessary information provided and any required attachments; and
- 7) Phase II - Provide follow up information, public, notice and any other additional information/documentation to support the GRDA permit application.

An applicant may NOT begin ANY work on project or GRDA lands until they receive all of the necessary permits and receive final approval of the permit application from GRDA.

Upon Receipt of Permit

- 1) Review all permit requirements and conditions;
- 2) Contact GRDA with any implementation questions;

- 3) Post permit in clearly viewable location during construction;
- 4) Undertake any follow up as mandated by GRDA permit; and
- 5) Contact GRDA if project scope, location or specifications change. (This contact should be made before any work commences)

9.1.2 GRDA

Upon receiving an application

- 1) Review and confirm proposed project location, management classifications, and allowable use designations;
- 2) Conduct a site visit;
- 3) Provide timely input on resource, design, permit requirements, and site specific issues to project proponent;
- 4) Provide an approximate timetable for application review based upon scope of proposal and regulatory requirements, including notification to applicant of FERC review (if required) and approximate timeline for such;
- 5) Provide opportunity for public meetings/forums as necessary;
- 6) Maintain public log/documentation of permit review as part of project file;
- 7) Review application for completeness and contact applicant as necessary for additional information requirements;
- 8) Process application; and
- 9) Approve/deny with written explanation of determination.

Upon Permit Issuance

- 1) Conduct site visit during construction;
- 2) Inspect and verify post construction and certify permit.

If a proposed use, in the sole opinion of GRDA, does not meet requirements and guidelines established in the SMP, the project proponent may reassess the proposed facility or activity, finding ways to either comply with

GRDA's requirements or withdraw the project from consideration. Section 10.8 details the waiver process.

10.0 PERMITTING AND INSPECTION

As the recipient of a federal license and under its enabling legislation, GRDA is responsible for supervision and control of the uses and occupancies for which it grants permission. Additionally, FERC requires GRDA to monitor compliance with any permits or conveyances they issue. Appendix C contains FERC license articles that pertain to shoreline management. Article 407, FERC's "Standard Land Use Article" details the uses a licensee may permit on Project lands and defines those uses that require additional FERC approval.

10.1 Article 407 "Standard Land Use Article"

The following discussion is only a summary and paraphrase of Article 407 designed to provide an overview of FERC's requirements. Appendix C contains the actual license article.

FERC has delegated GRDA the authority to permit the following non-Project use of Project lands without prior FERC notification or approval. GRDA may only allow these if they are consistent with the Project purposes of protecting and enhancing the scenic, recreational, and other environmental values of the Project:

- Landscape plantings;
- Non-commercial piers, landings, boat docks or similar structures and facilities than can accommodate no more than ten watercraft at a time and are intended to serve single-family type dwellings; and
- Embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. Before granting permission for the preceding, FERC requires GRDA to:
 - Inspect the site of the proposed construction;
 - Consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and

- Determine that the proposed construction is necessary and would not change the basic contour of the reservoir shoreline.

GRDA may convey easements, rights of way across, or leases of Project lands for the following, but must provide FERC with an annual report describing these conveyances.

- 1) Replacement, expansion realignment, or maintenance of bridges and road for which all necessary state and federal approvals have been obtained;
- 2) Storm drains and water mains;
- 3) Sewers that do not discharge into the Project waters;
- 4) Minor access road;
- 5) Telephone, gas and electric utility distribution lines;
- 6) Non-project overhead electric transmission lines (that do not require erection of support structures within the Project boundary);
- 7) Submarine, overhead, or underground major telephone distribution cables or major electric distribution lines; and
- 8) Water intake or pumping facilities that do not extract more than one million gallons per day from a Project reservoir.

For the following conveyances and permits, GRDA must provide FERC with 45 days notice of the proposed conveyance, in which time FERC may request GRDA file an application for formal approval of the conveyance by FERC.

- 1) Construction of new transportation infrastructure;
- 2) Sewers or effluent lines that discharge into Project water;
- 3) Pipelines which cross Project lands;
- 4) Non Project transmission lines that require support structures within the Project boundary;
- 5) Private or public marinas that can accommodate no more than ten watercraft at a

- 6) Recreational developments consistent with GRDA's Recreation Plan; and
- 7) Other uses if a) Land conveyances of five acres or less, b) if all land conveyed is located at least 75 feet from the Project's normal maximum surface elevation and c) the conveyance is no more than 50 total acres for each project development in one year.

All other uses of Project lands require formal FERC approval in addition to GRDA permits.

10.2 GRDA Permitting and Approval

Both GRDA and FERC must review and approve any activities not addressed by Article 407. For most uses, project proponents must submit a written application to GRDA with drawings providing location, design and dimensions, and a description of materials and type of construction. All uses must conform to GRDA's general requirements and minimum design standards. Separate GRDA permitting standards and protocols detail specific information that relates to these permitting requirements. A current copy of GRDA's permitting procedures and standards are available on GRDA's website (www.grda.com), at the GRDA Ecosystem Management Department located near the west end of Pensacola dam in Langley, by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594. GRDA may update permitting standards periodically, as needed, independently of SMP updates and amendments. (See Appendix E for a current copy of all GRDA rules and permit applications.)

The permitting procedures and standards documents provide information on requirements for docks and piers, bank stabilization measures, vegetation management and dredging, as well as information on facility construction and maintenance requirements. They also establish the criteria used in evaluating proposed new uses for both commercial and residential activities as well as facility construction standards for each activity.

GRDA will evaluate proposed new uses, and modifications to existing uses based on:

- Characteristics, zoning, intensity, and prevailing permitted uses within a half-mile radius of the proposed activities, (including SMC and allowable use determinations);
- Shoreline topography and geometry;
- Safety, navigation and flood control requirements;
- Environmental effects;
- Potential economic development and tourism benefits;
- Recreational use effects;
- Any other criteria which may affect the proposed project;
- The practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed facility or activity;
- The extent and permanence of the beneficial and/or detrimental effects which the proposed facility or activity is likely to have on the uses which the area is suited; and
- Existing jurisdictional regulations.

Agency consultation initiated by project proponents or GRDA regarding other governmental regulations may include (but is not restricted to) contact with:

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Oklahoma Department of Wildlife Conservation
- Oklahoma Department of Environmental Quality
- Oklahoma Water Resource Board
- Oklahoma Historical Society
- Oklahoma Archaeological Survey
- County Bureau of Environmental Quality
- Bureau of Indian Affairs

- Oklahoma Native American Tribes
- County Floodplain Administrators
- Oklahoma Corporation Commission
- Oklahoma State Fire Marshal
- FERC

No person, firm, partnership, corporation or other entity may perform any activity that requires a permit prior to the receipt of such permit from GRDA. For example, a homeowner may not place a dock in Project waters until the applicant receives written notice that GRDA approves such an activity.

The following sections highlight and summarize current permit applications and standards. GRDA reserves the right to make changes in permitting standards and requirements independently of the SMP.

10.3 Commercial Permit Application Standards

As detailed in GRDA's Commercial Project Permitting Process, commercial projects are:

- Construction or modification of facilities designed to accommodate more than ten watercraft at a time;
- Construction or modification of facilities intended to serve non-residential enterprises operated directly or indirectly for profit or gain including courtesy docks; and
- Dredging operations requiring removal of fill materials exceeding the amount of two thousand cubic yards.

Section 7.2 defines commercial uses that fall under the commercial permitting process. In general, permit applications for commercial uses within the Project boundary involve larger, more expansive and potentially more significant effects to lake resources. As such, GRDA permitting staff may require supplemental information to adequately review and assess such permit applications. In some instances, GRDA may require

completion and submittal of an Environmental Assessment (EA) to support permit applications. If GRDA requires an EA, the applicant must retain an entity listed on GRDA's Environmental and Wetlands Consultants list, available from GRDA's Department of Ecosystem Management. Specific standards for applications are included within GRDA's permitting program documentation and website. GRDA will reject applications failing to meet standards and guidelines. A public hearing shall be held prior to approval of a commercial permit. GRDA shall maintain an electronic database of individuals or organizations wishing to receive electronic notification of such hearings and shall comply with any applicable notice requirements imposed by law.

Under the current permitting standards, GRDA requires commercial applicants to provide the following:

- Contact information for the project proponent, and current landowners of the adjacent property;
- A statement of the proposed use of Project lands listing all activities proposed (if a phased approach is proposed by an applicant, the final build out must be presented at the onset of the permitting process) including all components of the project, materials proposed for use and the layout or design of the project;
- Site location maps clearly showing the location and type of facility (maps must clearly show the location of GRDA's Project boundary and applicable flowage easement lines in relation to the proposed project);
- Technical drawings of proposed facilities, certified by a registered engineer;
- Full survey (metes & bounds), prepared by a registered Oklahoma land surveyor, of the entire shoreline area within the boundaries of the proposed development, clearly indicating property lines in relation to the Project boundary and location of all existing or planned facilities within the Project boundary;
- A discussion of the proposed project's environmental effects including those on common fish and wildlife species, rare, threatened, and endangered species, vegetation, cultural resources, water quality and

- A statement describing why the project is in the public interest including a description of proposed measures to ensure boating safety near the project area during and after construction, as well as a statement of measures proposed to protect adjacent property owners' access to the shoreline and lake;
- A discussion of the "purpose" and "need" for expansion or new uses including a description of any adverse environmental effects that cannot be avoided and how the applicant proposes to minimize or mitigate for these adverse effects and, as necessary, an alternative analysis that documents why the proposed work or preferred location is the preferred action;
- Sufficient detail of the proposed projects components to identify their locations;
- Proof of fulfilling all other state and federal requirements and codes through inclusion in the GRDA permit application package of other permits received for the work; and
- Proof of liability insurance.

Should commercial applications substantially not meet the standards for permitting as established by GRDA because of size, location, or other environmental concerns, and if the applicant wishes to pursue further review through a waiver, the applicant may be required to develop an EA or Environmental Impact Statement (EIS) (if not previously included in the initial application package) in support of the waiver request. This description only generally describes and summarizes GRDA's permitting standards. GRDA may periodically update them. Commercial applicants should contact GRDA for the most recent permit standards and application requirements. Detailed information on applications for commercial use permits is included in GRDA's permitting procedures and standards available on GRDA's website (www.grda.com), at

the Department of Ecosystem Management in Langley, by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594.

10.4 Residential Dock Application Standards

While multi-family residential shoreline uses sometimes resemble commercial facilities in size and scope, generally residential uses of Project lands tend to have a smaller footprint with less potential for major environmental impacts. To preserve public access and to reduce environmental effects, GRDA places particular emphasis on consolidating shoreline uses. GRDA encourages the development of multi-owner facilities to reduce shoreline congestion.

GRDA reviews some residential shoreline facilities (with ten or greater slips) as an allowable residential use only if they are developed specifically without intent for commercial uses or monetary gain. Any proposed facility with ten or greater slips, requires FERC review and approval.

Residential applicants should contact GRDA for the most recent standards and permit application requirements. Detailed information on application for new or existing residential docks is included in GRDA's permitting procedures and standards available on GRDA's website (www.grda.com), at the Department of Ecosystems Management in Langley, by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594.

Should Residential applications not meet the standards for permitting as established by GRDA because of size, location, or other environmental concerns, the applicant may pursue further review through a waiver process. If the applicant wishes to pursue further review through a waiver process. The applicant must provide public notice of the proposed application.

10.5 Vegetation Management

During the development of this SMP, the issue of vegetation management emerged as the most contentious subject to be addressed. As the Rothman Summary

notes, the “most persistent and passionate objections were to the allegedly permit-heavy, micro-managing Vegetation Management Plan.”

GRDA believes the proper stewardship of shoreline vegetation is critical to the protection and enhancement of Lake Hudson’s environmental resources and socioeconomic value. Shoreline vegetation acts as a buffer to stabilize shorelines, prevent erosion and protect water quality by filtering and trapping organic and chemical pollutants, and can provide valuable habitat for fish and wildlife. Additionally, shoreline vegetation can have significant recreational and aesthetic value.

As shown by the SMC, resource characteristics and vulnerability vary widely around Lake Hudson. In certain areas, proper stewardship dictates that shoreline vegetation should remain undisturbed in order that these valuable resources are not jeopardized. However, strict preservation is not always required to provide sufficient protection and avoid adverse consequences. In fact, certain management practices are often necessary or appropriate and can improve resource quality.

Similarly, the extent of GRDA oversight and involvement necessary to ensure proper stewardship also varies depending on the proposed activity and the resources involved. Certain proposed activities will require GRDA to spend considerable resources critically examining all aspects of a plan and its implementation, while other activities can be summarily approved, given the routine nature of the management practice and the resource involved. Therefore, GRDA is committed to a vegetation management plan that is both responsible and reasonable.

10.5.1 Vegetation Management in Responsible Growth SMC

The guidelines in this subsection apply to Project lands classified as Responsible Growth Areas. However, if the SMC Maps indicate the presence of wetlands in a Responsible Growth Area, the provisions of Section 10.5.2 are controlling.

10.5.1.1 Authorized Management Practices:

Adjacent land owners have the permission of GRDA to engage in the following vegetation management activities on Project land classified as a Responsible Growth Area, provided the area has not been identified as containing wetlands.

- Mowing and maintenance of lawns established and existing before July 1, 2005. A lawn is defined as an area cleared of native understory vegetation and replaced with turf grass. No fertilizers shall be used on these lawns.
- Removal of floating debris, driftwood, litter, and trash provided the removal does not disturb the shoreline through the significant movement of soil, rocks, or existing live vegetation.
- Removal of hazardous trees only in cases where the trees are dead and dangerous, damaged and dangerous, diseased and dangerous, or otherwise present a public safety or property hazard.
- Pruning of limbs from living trees and shrubs greater than 3 inches dbh and up to one-third of the plant height of shrubs and non-woody vegetation to enhance the view of the lake. Pruning does not permit removal of trees greater than 3 inches dbh or complete clearing of any area.
- Removal of woody vegetation less than or equal to 3 inches dbh.
- Trimming of non-woody vegetation to a height of 2 inches.
- Removal of certain understory and exotic noxious plants identified in Appendix D, regardless of size.
- Landscape plantings which are consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the Project. A landscape planting is defined as flowering plants, grasses, trees or shrubs, provided the species introduced is not an invasive plant species identified in Appendix D. Adjacent landowners are strongly encouraged to use native vegetation when conducting landscape plantings. This provision does not permit the planting of turf grasses, whether native or non-native. A list of suggested native plant species is available from the Department of

10.5.1.2 Management Practices Requiring Site Specific Permitting:

Land owners adjacent to GRDA shoreline designated as a Responsible Growth area may only engage in the following vegetation management activities after obtaining a permit from the Department of Ecosystems Management.

- Establishment of a new lawn. A lawn is defined as an area cleared of native understory vegetation and replaced with turf grass.
- Removal of vegetation greater than three inches dbh.
- Any vegetation management activity, including the removal of floating debris, driftwood, litter, and trash, which disturbs the shoreline through the significant movement of soil, rocks, or existing live vegetation.
- Clearing vegetation to create and maintain access corridors between GRDA land and adjacent property. The corridor may not exceed 20 feet in width. Corridors must consist of natural materials such as native grass, wood chips, or gravel/crushed rock. Placement of such must not involve earth moving or soil disturbance and must minimize ground disturbance and vegetation removal. The path may extend from the common boundary between GRDA and the adjacent landowner to the waters edge.
- Clearing and planting of vegetation to prevent the deterioration of retaining walls and for shoreline stabilization. Such activity must be done in conformance with GRDA regulations and guidelines.

10.5.2 Vegetation Management in Stewardship SMC and Wetlands

Site Specific VMP Requirements:

Before conducting any vegetation management activities, including trimming trees and removing brush, on Project lands designated as a Stewardship Area or a Responsible Growth Area with wetlands, a site specific

vegetation management plan (VMP) must be submitted to and approved by the Department of Ecosystems Management and the proper permits must be obtained.

Generally, no vegetation management activity is permitted in a Stewardship Area and GRDA will not permit the removal of vegetation in wetlands located in Stewardship areas. Vegetation management activities are permissible in Responsible Growth Areas containing wetlands. However, such VMPs may be subject to greater scrutiny and may result in a requirement for on- or off-site mitigation and/or an alternative vegetation management plan.

Exception for Debris Removal:

In Stewardship Areas and Responsible Growth Areas containing wetlands, no permit is required for the removal of floating debris, driftwood, litter, and trash provided the removal does not disturb the shoreline through the significant movement of soil, rocks, or existing live vegetation.

10.5.3 General Provisions

A VMP may require written approval from FERC, the USACE, and other state and local agencies. Permittee shall perform all activities in strict accordance with the specifications approved by GRDA.

Adjacent property owners must initiate any activity allowed by the VMP permit within one year of issuance of the permit. . Failure to do so will result in the expiration of the permit. Management activities shall be limited to those GRDA lands immediate adjacent to the land of the property owner

Any person that violates the provisions of the VMP or who fails to obtain a permit when one is required may be required to pay all costs related to the repair, restoration and reclamation of GRDA lands and waters associated with the violation and may be subject to civil and criminal penalties.

If archeological or historical properties or items are discovered in the course of performing vegetation management activities, all land clearing and land disturbing activities shall cease immediately and GRDA shall be notified.

A utility company possessing an easement on project land may perform all vegetation management activities necessary to exercise its rights pursuant to that easement and shall not be required to acquire a permit.

10.5.3.3 Use of Herbicides and Pesticides

Use of herbicides and pesticides on Project lands is expressly prohibited except by a state licensed applicator with prior approval of the Department of Ecosystems Management.

10.5.3.4 Use of Heavy Machinery

While all machinery has the potential to disturb the shoreline if used irresponsibly, GRDA recognizes that its use is often preferred and sometimes necessary to accomplish certain allowed vegetation management practices. Therefore, GRDA will permit the use of machinery with a maximum power output not greater than 30 horsepower (hp) without prior approval for allowed management practices, provided the use does not result in the unauthorized movement of soil, rocks, or existing live vegetation. The use of machinery with a maximum power output greater than 30 hp may be allowed with prior approval from GRDA.

10.5.3.5 General Permits for Natural Disasters and other Emergencies

In the event a natural disaster or other emergency situation causes significant vegetation damage or debris accumulation within the Project boundary to the extent that site specific permitting is

impractical or would result in undue delay, the General Manager of GRDA may issue a general vegetation management permit governing all management activities within an affected area in lieu of requiring site specific permits. A general permit shall clearly identify the scope of allowed activities, the areas in which the permit is applicable, and the period of time for which the permit is valid.

10.6 Other Uses Requiring Review and Permitting by GRDA

10.6.1 Habitable Structures

“Habitable structures” or “dock-o-miniums” refer to living quarters constructed in conjunction with new or existing docks, piers, and floats. These structures generally resemble cabins and/or homes, placed on floating structures such as covered or enclosed docks, over boathouses and other similar structures where a building is or may be occupied by people overnight or for extended periods. Generally, these structures may contain water supply and/or waste disposal facilities such as sinks, showers, toilets, kitchen facilities, food preparation areas, *etc.*

Habitable structures currently exist on Lake Hudson. As no permitting category or definitions for these structures existed previously, most existing habitable structures were permitted as commercial or residential docks under GRDA’s procedures existing at the time of construction. Additional construction, not under GRDA’s regulatory authority at the time, resulted in enclosed docks with living quarters, toilets, cooking facilities, *etc.*

The GRDA Board of Directors has issued a moratorium on the construction of habitable structures on Lake Hudson. GRDA staff is currently developing permitting requirements for habitable structures that will guidelines and standards on their construction and placement. Upon approval of those requirements by the Board of Directors, GRDA will file an amendment to this SMP.

10.6.2 Dredging and Excavation Policy

All excavation and dredging activities on GRDA-owned property require a permit from GRDA. The USACE may also require a permit for excavation and dredging activities. Additionally, FERC must approve all dredging activities on GRDA waters requiring the removal of more than 2,000 cubic yards of material. If other regulatory agencies require permit application submittal and review, GRDA requires proof that the project proponent has received all other permits, prior to issuing a GRDA permit.

Dredging generally is not permitted in Stewardship Areas or within vegetated wetlands. In an effort to protect Project resources and adequately review all dredging applications, currently GRDA requires a wetland delineation study conducted by a GRDA approved wetland delineation specialist using the Army Corps of Engineers wetland delineation guidelines in any locations other than open water dredging.

Any new dredging will require sediment testing to determine if dredging may displace contaminants. Specifically, sediment samples shall be tested for the presence of heavy metals including Zinc, Lead, Chromium, and Cadmium. Detection of hazardous materials during testing may lead to a requirement that the project either be abandoned or the project proponent provide a dredging management plan to GRDA identifying how materials will be removed in compliance with the ODEQ Standards. Maintenance dredging of previously authorized facilities and structures under 250 cubic feet do not require soils testing.

GRDA will require dredging applicants to contract with GRDA approved personnel to collect sediment samples according to industry best practices. Four sediment cores per 2000 cubic yards of dredged material will be required and should be evenly distributed across the proposed dredging site. Depth of each

core will be recorded and reasonable efforts should be made to core a depth of 5-foot. Each core will be homogenized separately and a composite of the homogenized cores will be submitted as an individual sample for metals and particle size analysis. Sediment samples will be submitted to the Oklahoma Department of Environmental Quality's laboratory for metals analysis, and to a United States Fish and Wildlife Service approved lab for particle size analysis prior to issuing a permit.

Test results will be provided to the resource agencies for a 30-day comment period and GRDA will review agency comments and compare the results with published assessment guidelines from MacDonald et al. (2000). Test results exceeding the Threshold Effect Concentration's (TEC; i.e. concentrations predicted to be not toxic if concentration were lower than the corresponding TEC) will be submitted to FERC for final approval.

GRDA will approve excavation of a boat channel or embayment only when it determines there is no other practicable alternative to achieving sufficient navigable water depth, the action would not substantially influence protected resources, and the applicant can provide proof that they purchased their property prior to the development of these SMP policies. Applicants must be prepared to provide adequate documentation of the necessity of the project as part of any application. Dredging for new or previously authorized uses is seasonally restricted. To avoid potential impact to fish spawning areas applicants must receive approval of timing from GRDA for this activity.

GRDA currently requires notification of project commencement, post-dredging site review, and sign-off by GRDA enforcement staff at the completion of the action; Contractors are required to post their permit on site during activity.

Spoil material from channel excavations must be placed in accordance with any applicable local, state, and federal regulations at an upland site above the applicable flood plain and off Project lands.

10.6.3 Placement of Buoys

Adjacent property owners may request GRDA to place a “no wake” buoy in front of or adjacent to their property. No wake buoys designate a 150 foot corridor off the shoreline within which boats and other watercraft must travel at idle speed. Individuals applying for a buoy permit must agree to abide by the Rules and Regulations governing the Use of Shorelands and Waters of GRDA, which are Incorporated and made apart of the agreement, and that a buoy placement issued upon the application may be revoked at any time by GRDA. Any buoy not maintained in its proper location shall be subject to removal by GRDA, without applicants consent. All buoys are not covered by any warranty, express or implied, and replacement of a buoy will require an additional application fee. All buoys will be installed and maintained by GRDA, and are primarily warning devices for the convenience of the public, and should not be relied upon solely as navigational aids. GRDA assumes no liability or responsibility for loss or damages to life or property arising out of the public’s reliance upon said devices.

GRDA requires applicants petitioning for a no wake buoy provide information and documentation showing the proximity of a proposed buoy to an existing buoy. Should applicants feel that a buoy is warranted adjacent to their property due to boat and/or dock damage, GRDA requires proof of ongoing or existing damage, through the presentation of repair bills, photo documentation of damage and/or boat traffic that is operating in hazardous manner within the 150 feet corridor, and/or repair bills for reputed damage.

10.6.4 Shoreline Stabilization

GRDA may issue permits allowing adjacent residential landowners to stabilize eroding shorelines on Project lands. GRDA recommends biostabilization of eroded shorelines, where feasible. Biostabilization generally involves use of natural plants, minimal bank contouring to providing a planting surface, or placement of natural fiber mats, logs, or other materials to deflect wave action and

stabilize eroding shorelines. In some instances, GRDA may allow the placement of riprap along the base of the eroded areas to prevent further undercutting of the banks.

GRDA also permits the placement of engineered structures such as gabions or retaining walls for shoreline stabilization. However, GRDA will approve these methods only in shoreline locations where the erosion process is severe and GRDA determines that a retaining wall is the most effective erosion control option or where the proposed wall would connect to an existing GRDA-approved wall on the lot or to an adjacent owner's GRDA-approved wall. GRDA inspects the site of the proposed construction and considers whether the planting of vegetation or the use of riprap would be adequate to control erosion. GRDA does not permit the reclamation of GRDA land that has been lost to erosion.

GRDA will determine if shoreline erosion is sufficient to approve the proposed stabilization treatment. No shoreline stabilization may be conducted until GRDA issues a permit.

10.6.5 Railways, Tram Systems, Fences, Ramps and Retaining Walls

Construction of private or commercial railways, tram systems, fences, ramps or retaining walls constructed within the Project boundary requires permit application to and approval by GRDA. Project proponent must submit complete and detailed maps, plans and specifications for the proposed construction and its location, including a statement of the purpose(s) for which the work is to be done. The applicant must also be required to furnish a survey prepared by a licensed surveyor or engineer showing the location of GRDA's taking (property) line in the Project area and shall have such line staked on the ground. Permittees must maintain railways, tram systems, fences and retaining walls in a manner such that all electrical systems are to code, meet environmental guidelines, and that the structures are safe and pose no risk or threat to the public or otherwise unduly restrict the public from access and use of the Project. GRDA will not permit

residential boat ramps unless the ramp serves at least 25 homeowners or the public at large.

10.6.6 Grazing

Responsible grazing on Project lands is only allowed with the permission of GRDA, and will only be allowed in certain areas where the use is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the Project. Therefore, grazing leases are issued on a case by case basis.

GRDA will monitor for unauthorized grazing during its regular patrols of the lake by helicopter and boat. If discovered, GRDA will take necessary action to stop unauthorized grazing.

10.6.7 Licenses to Encroach

Certain structures built on project property prior to June 1, 2005, may be allowed to remain in GRDA's discretion pursuant to 82 O.S. § 874.2. Structures must be consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. Owners of such structures may obtain a license to encroach for a maximum of 30 years, subject to approval by FERC.

10.6.8 Lease of Project Lands for Public Purposes

GRDA leases land to municipalities, civic organizations and other entities for recreational areas such as public parks, picnic areas, and sporting and cultural events. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the Project and must be approved by GRDA and FERC.

10.7 General Property Inspections

GRDA reserves the right at all times to inspect any permitted or unpermitted use of the Project during and after construction or implementation. Should inspection of particular uses reveal inconsistencies or violations of established management policies and/or permitting standards, facility owners/users will be notified of such violation and advised by GRDA regarding the violation, suggested means to correct the violation, and actions to be taken by GRDA should the violation persist.

10.8 Permit Waivers

10.8.1 General Procedures

Upon written application and hearing, the Board of Directors of GRDA (Board) may grant a waiver, exception or modification to the requirements imposed on private and/or commercial permit applicants by GRDA. Additionally, the Board may impose additional requirements upon any such applicant. GRDA bases such waivers, exceptions, modifications, or additional requirements upon the totality of the circumstances, in consideration of public and environmental concerns. Any such waivers may also require prior FERC approval before becoming final.

In considering waivers of these rules, Board considers the potential positive and negative effects of the proposed facility or use on:

- Characteristics, zoning and prevailing permitted uses within a half-mile radius of the proposed activity;
- Shoreline topography and geometry;
- Safety, navigation and flood control requirements;
- Environmental resources;
- Potential economic development and tourism benefits;
- Recreational use; and
- Statutory mandates.

Any applicant for a waiver will give notice of application to the Board. Public notice of the waiver request shall be in accordance with guidelines

established by GRDA. Current guidelines are available from GRDA's Department of Ecosystem Management.

10.9 Grandfathered Improvements

Existing uses that were properly permitted and which met current GRDA standards at the time of permitting but which may no longer be compatible with this SMP, may remain in place, as long as they comply with the size, location and type requirements set forth in GRDA's requirements in effect at the time the structure was built. Grandfathered uses are not transferable to other locations. Uses, for which GRDA has not issued a permit, are not eligible for grandfathering. All existing and new uses must comply with all current regulations pertaining to maintenance, safety and environmental protection.

10.10 Best Management Practices and Educational Outreach

Best Management Practices (BMPs) are on-site actions implemented by an individual or group to lessen the potential effects of an action on a particular resource. For example, a property owner chooses to cut vegetation from *their* property to improve access or their viewshed rather than wholesale clearing. The landowner may choose to conduct selective clearings and replant low-lying vegetation to help maintain bank stabilization. The selective clearing and replanting of vegetation is a best management practice because it is an on-site action that reduces the potential effects of the specific use. (*Cutting vegetation on GRDA property or within the Project is subject to other guidelines and permitting requirements (see Section 10.5- Vegetation Management.)*). GRDA actively promotes BMPs for preserving and protecting natural resources on all of its lands as well as throughout the State. The goal of promoting shoreline BMPs is to assist in the conservation and protection of valuable shoreline resources, and to help reduce potential impacts to shoreline resources and water quality. GRDA recommends the BMPs provided in Appendix D for actions that occur on private property NOT on Project lands, and therefore the BMPs are not part of the SMP.

GRDA is dedicated to employing similar standards to their properties, both within and outside the Project boundary. Understanding that these shoreline BMPs are not regulations, GRDA, with assistance from stakeholders and other interested parties, supports public education efforts to encourage adjacent property owners to adopt these shoreline BMPs, as well as any other BMPs promoted by state and/or regulatory authorities. Adjacent landowners may obtain additional information on BMPs from GRDA's Department of Ecosystems Management.

10.11 Agency Regulatory Review and Permitting

10.11.1 Army Corps of Engineers

The USACE, under Section 404 of the Clean Water Act, regulates the discharge of dredged and fill materials into waters of the United States, including adjacent wetlands. Any work on Lake Hudson (typically the ordinary high water mark where a debris line is visible) may require consultation, project review and permitting by Corps staff as will any work in an upland wetland. If a project proponent completes a project deemed jurisdictional by the Corps without prior approval, penalties range from removal of the structure/fill to fines and imprisonment. Anyone proposing a project involving dredging or filling wetland should contact the USACE Tulsa District office.

10.11.2 State of Oklahoma, Regional, and Local Agencies

Oklahoma Department of Environmental Quality

Under Title 252, Chapter 611, the ODEQ issues 401 Water Quality Certifications for construction activities. In accordance with the provisions of Section 401 of the federal Clean Water Act and the Environmental Quality Code, any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, dredge or fill, or other activities, which may result in any discharge into, or pollution or alteration of the waters of the State of Oklahoma, must first obtain a water quality certification

from the ODEQ. The ODEQ issues, renews and modifies water quality certifications including, but not limited to, Permits issued by the USACE under the Section 404 permit program for the discharge of dredged or fill materials. Additionally, ODEQ enforces water quality standards on the lake, and may be called upon to take regulatory action for activities such as improper disposal of septic wastes in the waters of Oklahoma.

Local/Regional Floodplain Management

The Oklahoma Floodplain Management Act, passed in 1980, authorizes communities (*i.e.*, cities, towns and counties) to develop floodplain regulations, designate flood hazard areas and establish floodplain boards. An amendment in 2004 calls for accreditation of community floodplain administrators through the Oklahoma Water Resources Board (OWRB), ensuring that these officials are properly trained to effectively administer local floodplain regulations.

Consistent with protecting the natural functions of the floodplain and reducing flood losses, the OWRB values the No Adverse Impact floodplain management approach. No Adverse Impact strategies promote responsible floodplain development through community-based decision-making⁴.

Project proponents are strongly encouraged to coordinate with the floodplain manager in their town or county to ascertain if additional permitting requirements apply to their project.

GRDA

The provisions of the Oklahoma Statutes governing the Grand River Dam Authority prescribe how GRDA property may be used and authorize GRDA to promulgate and enforce rules and regulations for recreational and commercial

⁴ <http://www.owrb.state.ok.us/hazard/fp/floodplain.php>; October 23, 2006

uses of its lakes and shoreline⁵. GRDA has created a law enforcement division for enforcing these rules on the waters and land of GRDA.

The members of GRDA's law enforcement division are recognized as the enforcement officers for GRDA. The enforcement officers for GRDA may enforce GRDA rules and regulations, those rules and regulations as may be issued pursuant to the provisions of Section 4200 *et seq.* of Title 63 of the Oklahoma Statutes, the provisions of Sections 861 *et seq.* of Title 82 of the Oklahoma Statutes, and all violations of criminal laws occurring within the boundaries of the counties where real property owned or leased by GRDA is located. The enforcement officers have the power of peace officers during the performance of their duties, except in the serving and execution of civil process.

The officers are charged with the duty of examining and inspecting proposed locations for wharves, docks, dikes, anchorages, boathouses or any proposed structures or improvements to be made upon the waters or lands of GRDA, and issuing certificates of inspection. GRDA's law enforcement officers may cooperate with federal, state and local enforcement officers in the enforcement of all federal and state laws upon the waters, lands and properties of GRDA.

State Historic Preservation Office and Oklahoma Archaeological Survey

Shoreline ground disturbing activities may require review and comment from the SHPO and the OAS. The OAS provided GRDA with the known locations of culturally sensitive and potentially sensitive locations within and adjacent to the Project boundary. GRDA incorporated this information into non-public available resource mapping which they maintain. Using this information, GRDA staff will review all proposed new uses to identify potential impacts to known or potentially sensitive archaeological and historical properties. Early identification of proposed activities, as well as identification of activities requiring authorization and those that do not, will be key to minimizing permit

⁵ Rules and Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority, 2006

delays or rejection for project proponents. GRDA will review the permit application and supporting information to ensure that the property owner or new user provides the appropriate information. GRDA will assist landowners in determining whether the proposed action requires consultation with the SHPO or the OAS.

GRDA, as a requirement or condition of its permits, requires any entity that is proposing ground-disturbing activities within the Project to undertake the appropriate level of investigation, monitoring, and any subsequent mitigation found to be required for reasonable protection of cultural or historic resources within the Project.

11.0 ENFORCEMENT OF THE SHORELINE MANAGEMENT PLAN

11.1 Existing Tools for Enforcement

11.1.1 Enforcement Staff

As discussed in Section 9.10, GRDA's law enforcement staff enforces all GRDA policies and regulations. These duties include periodic inspection of permitted structures, general patrol of Lake Hudson to identify new construction of uses, review upon demand of permits approving repairs or new construction of facilities, water quality sampling, buoy review and relocation, and issuance of violation notices to adjacent property owners who are in violation of permit standards and conditions. GRDA also undertakes periodic fly-overs by patrol officers and other GRDA Ecosystem Management staff, to assess the development and/or discovery of new uses within the Project boundary or potential violations of existing permits.

All GRDA enforcement staff are trained and familiar with the new and existing standards, rules, regulations and policies included in the SMP, and are charged with not only with their enforcement, but also public outreach regarding them.

11.1.2 Actions Available for Enforcement

GRDA law enforcement personnel may order any person or entity that is violating any provision found in Title 63 or Title 21 of the Oklahoma Statutes or in any GRDA rules to leave the waters and/or lands of GRDA. Failure to obey may result in GRDA enforcing the provisions of 63 O.S.2001, § 4221 that provides that such failure to comply will constitute a misdemeanor punishable by a fine not to exceed \$250.00. Additionally, any such person or entity, after notice and an opportunity for hearing as provided in GRDA's enabling legislation, may be banned from the waters and/or lands of GRDA for a period of time up to, and including, 90 days.

Currently, if a dock, wharf, boat house, breakwater, buoy or any other structure, private or commercial, is not constructed with generally-accepted building materials and pursuant to generally-accepted construction practices, or installed in accordance with the plans and specifications approved by GRDA, or if such works are not kept in good state of repair and in a good, safe and substantial condition, are not inspected by a licensed electrical contractor as detailed in GRDA's permitting standards, or upon failure of payment of any fee when due, GRDA, after notice and opportunity to be heard in accordance with Subchapter 21 of its enabling legislation, has the right to remove or cause to be removed from GRDA's waters and lands such structure at the owners expense and/or cancel any license or permit in the event the owner fails to repair or remove these uses after being notified by GRDA to repair or remove the same.

GRDA's current policy is that any loose or abandoned dock will be impounded by GRDA and the owner is responsible for any expense incurred by GRDA. GRDA will notify the Oklahoma State Department of Health and the utility company furnishing electricity of any dock reported to be in an unsafe electrical condition.

In the event GRDA removes a dock, wharf, boat house, breakwater, buoy, fence, retaining wall, railway or any other structure, private or commercial, the owner of the structure will be required to pay all costs of such removal and may be required to pay all costs related to the repair and reclamation of GRDA lands and waters associated with the removal.

Please note that GRDA's rules and/or statutes are periodically subject to change. For further information and the most current information, interested parties should contact GRDA or visit its website at www.GRDA.com. GRDA reserves the right to waive, modify, amend or repeal any of these provisions in accordance with Oklahoma law.

12.0 SMP AMENDMENT PROCESS

In developing this SMP, GRDA has recommitted to the long-term stewardship of the Project's lands, water and environmental, recreational and socioeconomic values of Lake Hudson. GRDA formulated this SMP in anticipation of continued growth and new uses on and adjacent to Project lands. GRDA recognizes that the region is a popular tourist destination and residential area and that non-project uses change over time. While these changes in use may occur slowly, they may result in patterns that necessitate reassessment of the SMP. To assure the SMP continues to remain relevant, GRDA has prescribed processes to review and, if necessary, to amend the SMP.

12.1 Tracking Non-Project Use

GRDA will institute permit and non-project use tracking using the existing GIS. GRDA will enter new permit applications into the GIS, so GRDA may track development and use patterns, as well as have easy access to data related to permitted activities. GRDA will use the GIS database as one of the tools for assessing permit applications as well as for assessing the need for future changes in permitting or land use classifications.

GRDA will update Project and resource databases as needed to assure they are reflective of field conditions. As long as resource and use criteria as established by this SMP do not change, GRDA will not seek additional review by FERC.

12.2 Shoreline Management Classification Monitoring

As demographics and user groups change within the Project Vicinity and development of areas around the Project proceeds, the SMC may require revision. Some shoreline areas may no longer support additional development while other areas may experience shifts in demographics that require adjustment of allowable uses. As patterns of development change, some areas may require the reevaluation of their designation or the creation of new SMC.

To maintain the continued relevance of the SMP, GRDA intends to review the Land Use Classification mapping, the SMP and the associated permitting programs every six years. The six-year review timeframe allows GRDA to assess issues that may arise because of development around the reservoir. A longer period may not react to shifts in use while a shorter period may not permit meaningful analyses of cumulative affects. This review process provides a means for GRDA to adopt or replace policies in the SMP. At least six months prior to preparing a report on the SMP review, GRDA will publicly notice the process and request comment from the public. Changes in the tracking of SMP activities as described in Section 11.1 or that simply require changes in the mapping, or other minor changes such as new development within existing subdivisions adjacent to the Lake, or changes in recreational uses and access will be noted but are unlikely to warrant amendments to the SMP. Major changes in land use patterns or new uses of the Project may require further evaluation for new management strategies or may even require amendment of the SMP. GRDA will provide FERC a report on the evaluation of the SMP no later than the six-year anniversary following approval of the SMP and every six years thereafter.

12.3 SMP Amendment Process

Major changes in development patterns, land uses, demographics, socioeconomics or other factors within the Project Vicinity may, over time, change assumptions presented in this SMP. GRDA has established the following criteria that may indicate the need to address amendment of the plan.

Major Commercial Additions or New Commercial Uses: GRDA will continue to monitor growth and development patterns around the lake and compile data that may be useful in the event an SMP amendment becomes necessary during the review period.

Large Parcel Land Sales/Major Changes in Land Ownership: In the event that major parcels of previously undeveloped land change ownership, with an identifiable purchaser and new intent for use, GRDA may review both the SMC designation, as well as the allowable uses within the area to determine if amendments to the SMP are warranted.

Changes within the Management Classifications: GRDA based the current SMC on existing environmental, social and aesthetic resources. Some of these classifications are dynamic by nature. It is possible that during the review period new concerns such as wetland habitat may change, thereby necessitating the re-evaluation and possible amendment of SMC as well as the associated allowable uses.

In the event that one or more of the above conditions occurs, or cumulative effects of activities within the Project appear to affect the effectiveness of the SMP, GRDA will begin internal review of the existing plan. Should GRDA determine that major changes to the land use classification mapping (through definition and assignment of new SMC or reassignment of existing SMC) are necessary, GRDA will petition FERC to amend the SMP.

Upon determination of the necessity to amend the SMP, GRDA will publicly notice its intent, and provide a public forum for public comment, either through public meetings or through Board meeting discussions (which are open to the public). Because a revision or modification of the SMP requires FERC approval, any proposed amendment will follow FERC procedures.

13.0 BIBLIOGRAPHY

- Erickson, N.E. and D.M., Leslie Jr. 1988. Shoreline vegetation and general wildlife values around Grand Lake, Oklahoma. Oklahoma State University. Stillwater, Oklahoma. 70 pages. January 1988.
- Federal Energy Regulatory Commission. 2006. Environmental Assessment for Hydropower License: Markham Ferry Hydro Project (FERC No. 2183-035). February 2006.
- FWS. 1983. Northern states bald eagle recovery plan. Prepared by the U.S. Fish and Wildlife Service in cooperation with the Northern States Bald Eagle Recovery Team, Washington, DC.
- GRDA (Grand River Dam Authority). 2005a. Response to March 1, 2004, FERC additional information request. Prepared for Grand River Dam Authority by The Benham Companies, LLC. Norman, OK. January 10, 2005.
- GRDA. 2005b. Response to March, 2005, FERC additional information request. Prepared for Grand River Dam Authority by The Benham Companies, LLC. Norman, OK. May 27, 2005.
- GRDA. 2002. Initial consultation package. Prepared for Grand River Dam Authority by Atkins Americas, Inc, Tulsa, OK. September, 2002.
- LaVal, R. K., R. L. Clawson, M.L. LaVal, and W. Caire. 1977. Foraging Behavior and Nocturnal Activity Patterns of Missouri Bats, With Emphasis on the Endangered Species *Myotis grisescens* and *Myotis sodalis*. J. Mammal. 58:592-599.
- Oklahoma Department of Environmental Quality. 2006. Water Quality Assessment Integrated Report. Prepared Pursuant to Section 303(d) and Section 305(b) of the Clean Water Act by the Oklahoma Department of Environmental Quality.
- Oklahoma Department of Wildlife Conservation. 2005a. Oklahoma Reservoir Fact Sheet: Grand.
- Oklahoma Department of Wildlife Conservation. 2005b. Oklahoma Information for Paddlefish Conservation Management Grant. December Report.
- Oklahoma Office of the Secretary of the Environment. 2004. Comprehensive Study of the Grand Lake Watershed - 2004 Initial Report.
- Oklahoma Water Resources Board and Oklahoma State University. 1995. Diagnostic and Feasibility Study of Grand Lake O' the Cherokees. Phase I of a Clean Lakes Project, Final Report.
- Oklahoma Water Resources Board. 2007. 2007 Report of the Oklahoma Beneficial Use Monitoring Program (BUMP), lakes report.

APPENDIX A

RESOURCE AGENCY COMMENTS

WILDLIFE CONSERVATION COMMISSION

Harland Stonecipher	Bruce Mabrey
CHAIRMAN	MEMBER
John D. Groendyke	Mac Maguire
VICE CHAIRMAN	MEMBER
Mart Tisdal	Bill Phelps
SECRETARY	MEMBER
Mike Bloodworth	M. David Riggs
MEMBER	MEMBER



BRAD HENRY, GOVERNOR
GREG D. DUFFY, DIRECTOR

wildlifedepartment.com

DEPARTMENT OF WILDLIFE CONSERVATION

P.O. Box 53465

Oklahoma City, OK 73152

PH. (405) 521-3851

July 8, 2009

Grand River Dam Authority
Attn: D. Casey Davis
P.O. Box 409
Vinita, OK 74301



Re: Request for Comments / Lake Hudson Shoreline Management Plan

Dear Mr. Davis,

By letter dated June 3, 2009, the Grand River Dam Authority (GRDA) submitted a Draft Shoreline Management Plan (SMP) for the Markham Ferry Project to the Oklahoma Department of Wildlife Conservation (ODWC) for comment. The GRDA has developed the SMP at the recommendation of the Federal Energy Regulatory Commission (FERC).

We appreciate GRDA's efforts to meet with us and the U.S. Fish and Wildlife Service (USFWS) on June 18, 2009. The meeting allowed us to discuss many of the concerns we have with the draft SMP. After reviewing the draft SMP, the ODWC submits the following comments.

6.1 Recreation Management at Lake Hudson

We recommend that the carrying capacity study referenced in this section be revised and expanded. The existing carrying capacity study was poorly designed, contained inadequate sampling effort, and should not be used as a basis for any assumptions or decisions in the SMP.

7.1 Shoreline Management Classifications for Lake Hudson

The SMP appears to classify nearly all shorelines as "Responsible Growth" unless they are already identified as wetlands and seems to assume no other shoreline areas need any protection. ODWC does not agree with this view, and recommends that surveys to assess fish and wildlife habitat values should be conducted prior to the classification of Lake Hudson shorelines. The "Responsible Growth" classification proposes only very limited protection for fish and wildlife habitat and would essentially allow most GRDA property to be mowed and managed as a lawn for adjacent property owners. Also, while GRDA does not permit development activity in wetlands, buffer zones around wetlands should also be precluded from development activities.

10.5.1 Vegetation Management in Responsible Growth SMC

It is stated in the SMP that GRDA believes the proper stewardship of shoreline vegetation is critical to the protection and enhancement of Lake Hudson's environmental resources and socioeconomic value. It is also stated that shoreline vegetation acts as a buffer to stabilize shorelines, prevent erosion, and protect water quality by filtering and trapping organic and chemical pollutants. ODWC agrees with these statements. Shoreline vegetation provides valuable habitat for fish and wildlife. During high water events in the spring, areas of shoreline vegetation can be utilized as spawning habitat by certain fish species. The SMP states that adjacent landowners may remove woody vegetation less than or equal to 3 inches dbh, trim non-woody vegetation to a height of 2 inches, remove woody debris and driftwood, and prune trees without a permit. In essence, adjacent landowners may extend their lawn to the shoreline, destroying valuable shoreline habitat. ODWC recommends that these activities require a permit, and that revenue from that permit be used to mitigate for lost shoreline habitat. It is not clear what amount of GRDA property can be managed by an "Adjacent Landowner". Are "Adjacent Landowners" allowed to clear vegetation only on land that immediately touches theirs, or on entire tracts of land that may only touch theirs in a small area? The term "Adjacent Landowner" needs to be clarified.

10.6.2 Dredging and Excavation Policy

In a letter dated May 5, 2009, the US Fish & Wildlife Service (USFWS) addressed GRDA with concerns regarding dredging and contaminant sampling on Grand Lake. The ODWC is in full agreement with the statements in that letter and supports the recommendations made by the USFWS. Since the dredging and excavation policy sections are the same for both the Grand and Hudson SMPs, the ODWC recommends that GRDA follow the aforementioned recommendations for Lake Hudson in this SMP.

10.6.6 Grazing

We recommend that the language in this section be modified. It is unclear how grazing is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the Project. The trampling, herbivory, and soil compaction associated with grazing are destructive to shoreline habitat. We would encourage that this section include plans to monitor the lake for unauthorized grazing, and to use fencing or alternative methods to keep unauthorized grazing from occurring. The ODWC realizes that grazing can be beneficial to some species under certain conditions. If GRDA believes that grazing is beneficial to the habitat of any fish or wildlife species that occur around Lake Hudson, those species and the grazing conditions that benefit them need to be addressed, and recommendations made in the SMP. On May 8, 2006 ODWC filed documentation of negative grazing effects with FERC. During a site visit on June 17, 2009 grazing was evident in an area that is being planted with aquatic vegetation by ODWC and the Oklahoma Water Resources Board. These aquatic vegetation plantings are part of mitigation that is being funded by GRDA.

ODWC appreciates GRDA's continuing efforts to develop plans to protect the natural resources at the Markham Ferry Project. If you have questions or comments, please contact me at our Jenks Office (918) 299-2334.

Sincerely,

A handwritten signature in black ink that reads "Ashley Foster". The signature is written in a cursive style with a large initial 'A'.

Ashley Foster
Fisheries Biologist, NE Region
Oklahoma Department of Wildlife Conservation



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services

9014 East 21st Street

Tulsa, Oklahoma 74129

918/581-7458 / (FAX) 918/581-7467



In Reply Refer To:
FWS/R2/OKES/

21440-2009-FA-0051

May 5, 2009

RECEIVED

MAY 06 2009

**GRDA
ECOSYSTEM**

Darrell E. Townsend
Office of Ecosystems Management
Grand River Dam Authority
P.O. Box 409
Vinita, Oklahoma 74301

Dear Mr. Townsend:

Grand Lake has been contaminated with metals from abandoned lead and zinc mines upstream of the lake in the Tri-State Mining District (TSMD). There are four superfund sites that make up the TSMD, Cherokee County Superfund Site in Kansas, Jasper and Newton County Superfund Sites in Missouri, and Tar Creek Superfund Site in Oklahoma. Mining began in the early 1800's producing contaminated tailings piles over hundreds of square miles in the TSMD. The tailings piles, the mining and milling process and other operations at the TSMD have contaminated hundreds of miles of streams and the Neosho and Spring rivers which flow into Grand Lake O' the Cherokees.

Due to the concerns about contaminated sediment in Grand Lake, the Federal Energy Regulatory Commission (FERC) has required metals testing on sediments from proposed dredging projects. In addition, GRDA has included sediment testing language on their website and in the draft Pensacola Shoreline Management Plan (SMP). In recent months, the Grand River Dam Authority (GRDA) has requested U.S. Fish and Wildlife Service's (Service) comments on several proposed dredging applications (Shangrila, Royalty LLC, Landings Marina LLC, Billy Warren, Robert Gonce Jr., and Robert Hamm). The Service is concerned that the sediment testing associated with dredging projects are being conducted improperly and that the results will not be comparable due to the different sampling protocols. When sediment samples are not properly collected, the data from those samples can be inadequate, inaccurate, and misleading.

The Service is providing recommendations for improving the testing process. These comments are intended to apply to all proposed dredging projects at Grand and Hudson Lakes. In the Service's opinion, there are significant problems with the sediment metals testing for all the applications we have received and we strongly urge GRDA and FERC to address the sampling problems as soon as possible.

Wetlands

Some projects have potential to impact wetlands and wildlife values associated with the wetlands. We support wetland delineations to avoid dredging in the wetlands, but moving the project slightly and putting a dock next to a wetland is not sufficient to avoid adverse impacts. The disturbance related to activity on or near the dock may affect and alter wildlife use of the nearby wetland. This is why we stressed the need for buffers, and or mitigation, for wetlands in our most recent comments on the SMP (dated September 24, 2008).

Metals

Problems with existing samples submitted for review

For the applications we reviewed, the methods used to collect and analyze the samples are inadequate. The Service and Mark Becker with the U.S. Geological Survey (USGS) previously provided sediment sampling recommendations to FERC, and GRDA during our May 13, 2008, meeting, and Mark Becker provided sediment sampling protocols in the pre-proposal he submitted to GRDA. Also, the Service provided recommendations to Eagle Environmental Consulting in a February 28, 2009, meeting and subsequent emails and phone calls.

Sediment samples have not been properly collected and, in some cases, have not been tested for the appropriate metals (e.g. zinc). GRDA has sent the Service proposed dredging projects with sediment samples collected using inappropriate sampling equipment (e.g. backhoe, shovel) or a combination of multiple sampling equipment for the same project (e.g. sediment auger/shovel). It would be difficult or impossible to collect a representative sample using these methods.

In several proposed projects, the original shovel samples were not tested for zinc and then at a later date, cores were taken with a sediment auger and analyzed for zinc only. It is not clear how or where the cores were taken, but if they were taken at the same locations as those collected by shovel (above the normal waterline), they are all of little value. The majority of the analysis has been conducted by Green Country Testing and some samples have been analyzed by the Oklahoma Department of Environmental Quality lab. Using multiple labs may introduce potential sources of bias and/or different levels of accuracy. In addition, quality assurance/quality control (QA/QC) methodology was not provided for samples collected at any of the projects.

Other problems with sampling protocol include sample collection above the normal waterline (the reports state 745-750 foot elevations). These samples do not represent depositional material and introduce a strong bias to the dataset. The potential for contamination of the lake from upstream mining operations is largely limited to areas where sediment could accumulate and this would be below the normal waterline. Collecting samples from elevations above the normal waterline and analyzing what is primarily parent material is likely to produce results with relatively low concentrations of metals that would dilute samples that were mixed with actual sediment. Dredging for a dock will obviously require dredging below the normal waterline, but few of the samples appear to have been collected there. In one application, samples were collected both above and below the normal waterline, but the samples were homogenized and we

can not determine if the reported metals (Chromium concentrations exceeded the GRDA threshold) contamination came from sediment or parent material. In addition, the depths of the samples submitted for our review have not been reported and all samples have been homogenized instead of being analyzed by layers, as recommended by the Service and USGS at our May 13, 2008, meeting and in emails (copies enclosed). None of the sediment samples submitted for our review have been collected or analyzed appropriately for assessing the contaminants risks. Therefore, the Service recommends that the metals testing results submitted with the existing applications not be used in evaluating the dredging proposals.

If the proposed projects are approved without proper testing, the dredging projects would expose layers of previously buried sediment that may contain levels of contamination that can injure aquatic resources. Properly collected cores and appropriate analysis would provide an accurate representation of the potential contaminants prior to any dredging project implementation.

Problems with site by site sampling:

Putting the responsibility for testing on the applicants results in several problems that include, but are not limited to:

- 1) Few, if any, area consultants have the appropriate equipment to collect the cores for testing (in most cases it would require boat mounted equipment).
- 2) Quality control for collection and handling of samples is questionable.
- 3) Applicants want to get a permit for dredging and are not necessarily interested in the accuracy of the testing (there is potential for false or inappropriate samples to be submitted). It would be difficult or expensive to verify that the samples actually came from the proposed dredge site.
- 4) Each permit application would have to wait for results from the lab before GRDA could process it.

Examples of all four of the potential problems above can be found in the applications submitted thus far.

Recommendations

As mentioned in previous communications, we recommend implementing a contract with USGS to allow the appropriate sampling and analysis to be completed relatively quickly, and reliably, and to make the process of reviewing dredging applications much more efficient. We recognize that GRDA has decided not to implement our recommendation for contracting the sampling of Grand Lake sediments and that GRDA continues to support requiring sampling and testing by the dredging applicants. However, we do not believe that this approach is practical or feasible for the applicants or GRDA/FERC. For example, some applicants have already paid for two different sampling efforts and yet no usable data have been provided. The Service cannot support GRDA's proposed process unless they can demonstrate that it can reliably produce accurate results.

The examples of inadequate and inappropriate sediment sampling and analysis for metals support previous Service comments submitted for the SMP, in several emails (enclosed), and discussions in our May 13, 2008, meeting. FERC has required the testing of sediments prior to dredging, but

sampling provides useful data only if it is collected using adequately designed protocols and sampling methodology. It is imperative that GRDA implement an accurate and systematic process (such as the pre-proposal submitted by USGS) for sampling the contaminant levels in Grand Lake sediments to avoid problems described in this letter and to reduce potential liability issues for itself and for FERC. Until an adequate process is implemented, we suggest all dredging permits, regardless of size, require FERC approval. The Service has provided recommendations on this subject for more than two years. At this juncture the Service has the responsibility to elevate this issue to the Oklahoma Secretary of the Environment and EPA if appropriate measures are not implemented to address the dredging of Grand Lake sediments.

Specific recommendations:

The sediment sampling plan should address the following issues:

1. Exclude size limits for dredging projects. We do not agree that "Maintenance dredging of previously authorized facilities and structures under 250 cubic feet do not require soils testing". The cumulative effects of all dredging projects need to be considered.
2. Define what experience and protocols are needed for the sampling and analysis and include QA/QC procedures.
3. Specify the metals to be analyzed, a maximum reporting level, and the analytical method to be used.
4. Locations of cores should be surveyed using a Global Positioning System and the interval of core length should be recorded (and percent of core recovered.) Cores should go at least one foot beyond the proposed dredging depth and samples of every 12 inches (or less) should be extracted for analysis. This would allow for the assessment of any metals trends in the sediment column and reveal the concentrations of layers that would be exposed. The location of the core (or cores) should be representative of the sediments in the proposed dredging area and be well below the normal waterline.
5. Specific equipment descriptions, including core liners or how the core would be extracted from metal tubes, homogenized, sampled, and coring devices need to be included in the QA/QC plan.

We have proposed that GRDA take a more proactive approach and contract USGS to sample all appropriate areas of the lake that are likely to have dredging requests. Through such a contract most, if not all, of the sampling-related issues described above would be appropriately addressed (see the enclosed USGS pre-proposal as an example) without any additional effort by GRDA. Since a USGS pre-proposal was submitted to GRDA, the USGS has obtained enough information on Grand Lake sediments to refine the proposal and perform a more cost-effective evaluation. By having one entity do a lake-wide assessment, core collection and lab analyses would be consistent throughout the lake. The USGS contract work would be published and the results would provide GRDA more justification for granting or denying dredging permit applications. By identifying areas of concern, application rules could be adjusted to streamline the permit process. The costs could be spread out to all applicants through permit fees and would be far less expensive and more efficient than each applicant paying for their own sampling. For example, the contaminants risks in large coves could be assessed with relatively

few samples. GRDA and FERC would have the required information on sediment contamination and could process dredging applications without waiting for sampling and analysis. We think that this strategy is the most effective way to deal with dredging applications and have been recommending this for more than two years.

Liability

Most of the results from existing sediment cores collected from other projects demonstrate that deeper sediments can exceed the threshold effects concentration (TEC) and probable effect concentrations (PEC) for some of the metals of concern (see McDonald et al. 2000). These contaminated sediments are on GRDA property and within FERC Pensacola Project boundaries. Dredging could expose these layers of higher concentrations of metals and make them available to aquatic life in the lake. Also, most of the applicants propose to truck the dredged material "to a location on site above the Corps of Engineers (COE) flowage easement". Runoff from this dredged material could move some of the contaminated sediments and metals back into the lake. Without proper precautions, approval of dredging permits could make GRDA and FERC partially responsible for the resulting contamination. The contamination of sediments is a known problem and it would be irresponsible to ignore the risks of dredging-related exposure and suspension of these contaminants. We suggest that GRDA and FERC work with USGS to contract the appropriate sampling prior to any dredging and placement of spoil.

Workload

The Service cannot continue to provide our contaminants expertise and review or assist with all the individual dredging applications for GRDA and FERC. Our existing contaminants staffs' workload and priorities preclude them from reviewing and participating in the permits for multiple dredging projects. We have provided general recommendations, but to get additional contaminants-related expertise and assistance, GRDA and FERC will need to contract with other sources. To our knowledge, GRDA does not have staff with the contaminants expertise necessary to review these applications, so it should be beneficial to all agencies involved to utilize the expertise of the USGS and develop a more efficient and programmatic process for reviewing dredging proposals at Grand Lake.

In conclusion, the Service appreciates your efforts to address water quality and contaminants-related impacts to fish and wildlife resources. If you have any questions, please contact Kevin Stubbs at 918-581-7458, extension 236.

Sincerely,



Dixie Birch
Acting Field Supervisor

Mr. Townsend

6

cc: Director, ODWC, Fisheries Division Oklahoma City, OK
Tulsa District, U.S. Army Corps of Engineers, Regulatory Branch Tulsa, OK
FERC, Attn: Peter Yarrington



Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office

Oklahoma History Center • 2401 North Laird Ave. • Oklahoma City, OK 73105-0914
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

July 1, 2009

Mr. D. Casey Davis
GRDA
P.O. Box 409
Vinita, OK 74301



RE: File #1717-09; GRDA Markham Ferry, Lake Hudson Shoreline
Management Plan, Mayes and Delaware Counties, Oklahoma

Dear Mr. Davis:

We have received and reviewed the documentation for the referenced project. According to the "Lake Hudson Shoreline Management Plan" GRDA will determine, in consultation with the Oklahoma State Historic Preservation Office (SHPO) and the Oklahoma Archeological Survey (OAS) [Pages 28 and 63-64], when undertakings may affect archeological sites that exist within GRDA's holdings. Further, the document states that if important archeological sites (eligible properties) are present these locations will not be permitted for development or recreational use. We concur that this approach is appropriate to take into account the effects of GRDA's undertakings on historic properties.

However, we do have a major concern regarding the completion of the management plan for the Pensacola Project for Lake Hudson (refer to the permit's Appendix B: License Articles Relevant to the Pensacola Project's Shoreline Management; specifically Article 404). According to the conditions outlined in a Programmatic Agreement (PA) agreed to by FERC and SHPO in mid-2006, GRDA was to develop and implement a Historic Properties Management Plan (HPMP) within 18 months of execution of the renewal permit (June 19, 2006). This plan would be completed and filed for Commission approval. GRDA requested and was granted several extensions, with the last set to expire on December 15, 2008, to complete the HPMP. The final HPMP has not been approved, nor filed with the Commission.

The HPMP was to establish how National Register of Historic Places eligible properties are to be protected and/or mitigated. As the HPMP has never been implemented, GRDA must address undertakings for this reservoir on a case-by-case basis with the SHPO and the OAS.

Thank you for the opportunity to review this project. If you have any questions, please call Charles Wallis, RPA, Historical Archeologist, at 405/521-6381. Please reference the above underlined file number when responding. Thank you.

Sincerely,
Melvena Heisch

Melvena Heisch
Deputy State Historic
Preservation Officer

MH:pm

cc: Dr. Robert Brooks, State Archeologist



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

BRAD HENRY
Governor

July 2, 2009

Mr. Casey Davis
Assistant General Counsel
Grand River Dam Authority
P.O. Box 409
Vinita, Oklahoma 74301-0409



Re: Request for Comments on Lake Hudson Shoreline Management Plan (Markham Ferry Project FERC No.2183)

Dear Mr. Davis:

Thank you for your letter dated June 3, 2009. The DEQ appreciates the opportunity to review and comment on the final draft of your Shoreline Management Plan.

The DEQ has the following comments:

- The Draft uses the 303(d) state impaired waters list of 2006 (pages 11 and 12). However, you should use Oklahoma's 2008 303(d) list of impaired waters, approved by the EPA. Copies of the 2008 Draft 303(d) list can be found at http://www.deq.state.ok.us/wqdnew/305b_303d/2008_integrated_report_entire_document.pdf
- The Draft uses the BUMP report of 2005. However, you should use Oklahoma's BUMP report of 2007. Copies of the BUMP report can be found at <http://www.owrb.ok.gov/quality/monitoring/bump.php>.

If you have any questions pertaining to this letter, please contact Elena Jigoulina at (405) 702-8200.

Sincerely,

Mark Derichsweiler, P.E., Engineering Manager
Watershed Planning and Storm Water Permitting Section
Water Quality Division



GRDA RESPONSE TO AGENCY COMMENTS

1. Comments of the Oklahoma Department of Wildlife Conservation (ODWC)

6.1 Recreation Management at Lake Hudson

ODWC Comment: ODWC recommends the carrying capacity study for Lake Hudson be revised and expanded.

GRDA Response: GRDA believes the current study is sufficient. The carrying capacity study for Lake Hudson was similar to that conducted for Grand Lake and contains similar monitoring plans. Currently, GRDA monitors the two lakes simultaneously with helicopter flights. Having two different monitoring programs would be overly burdensome on the agency.

7.1 Shoreline Management Classifications for Lake Hudson

ODWC Comment: ODWC believes too much shoreline is designated as “Responsible Growth” and that that designation does not provide sufficient protection. ODWC recommends surveys be conducted to assess habitat values and that buffer zones should be created around wetlands.

GRDA Response: GRDA believes the Shoreline Management Classifications provide significant resource protection, especially when viewed in light of the clear standards and procedures detailed in other parts of the Plan. Almost fifty percent of the shoreline is designated as Stewardship SMC compared to approximately forty-five percent for Responsible Growth. Furthermore, the SMP’s adaptive management policy, monitoring plans, and amendment provisions allow GRDA to recognize and respond to emerging management demands. Contrary to ODWC’s comments, the Stewardship SMC has been drawn to include buffers around wetlands and other significant resources.

10.5.1 Vegetation Management in Responsible Growth SMC

ODWC Comment: ODWC’s primary criticism of the vegetation management plan is that it allows adjacent landowners too much latitude in vegetation management practices. ODWC seeks clarification on what amount of land can be managed by an adjacent landowner. The agency recommends that all vegetation management activities require a permit.

GRDA Response: In drafting the Vegetation Management Plan (“VMP”), GRDA and the Stakeholder Working Group sought to create a system that is both responsible and reasonable. In many areas around the lake, GRDA owns a minimal amount of land such that management efforts would be of little to no real value. Currently, GRDA has in place a VMP that requires the issuance of a permit before an adjacent landowner can engage in any vegetation management activity. This system has proven to be burdensome on the both the public and the agency because even the most de minimis

activities require approval. This level of scrutiny detracts from enforcement officers' ability to focus their efforts on other more pressing compliance issues. The VMP contained in this plan still requires a permit before adjacent landowners engage in more substantial activities like removal of larger vegetation and any activity in a Stewardship area.

In response to ODWC's comments, GRDA has added language to the VMP to clarify that management activities are limited to the GRDA land immediately adjacent to the land of the property owner.

10.6.2 Dredging and Excavation Policy

ODWC Comment: ODWC recommends GRDA follow USFWS' recommendations on dredging for Grand Lake in a letter dated May 5, 2009. (A copy is attached to ODWC's comments.) In that letter, USFWS advocates for abandoning site by site sampling in favor of a lake-wide survey conducted by USGS. It identified the following problems with the current approach:

Problems with site by site sampling:

Putting the responsibility for testing on the applicants results in several problems that include, but are not limited to:

- 1) Few, if any, area consultants have the appropriate equipment to collect the cores for testing (in most cases it would require boat mounted equipment).
- 2) Quality control for collection and handling of samples is questionable.
- 3) Applicants want to get a permit for dredging and are not necessarily interested in the accuracy of the testing (there is potential for false or inappropriate samples to be submitted). It would be difficult or expensive to verify that the samples actually came from the proposed dredge site.
- 4) Each permit application would have to wait for results from the lab before GRDA could process it.

USFWS made the following specific recommendations for the dredging plan:

Specific recommendations:

The sediment sampling plan should address the following issues:

1. Exclude size limits for dredging projects. We do not agree that "Maintenance dredging of previously authorized facilities and structures under 250 cubic feet do not require soils testing". The cumulative effects of all dredging projects need to be considered.
2. Define what experience and protocols are needed for the sampling and analysis and include QA/QC procedures.
3. Specify the metals to be analyzed, a maximum reporting level, and the analytical method to be used.
4. Locations of cores should be surveyed using a Global Positioning System and the interval of core length should be recorded (and percent of core recovered.) Cores

should go at least one foot beyond the proposed dredging depth and samples of every 12 inches (or less) should be extracted for analysis. This would allow for the assessment of any metals trends in the sediment column and reveal the concentrations of layers that would be exposed. The location of the core (or cores) should be representative of the sediments in the proposed dredging area and be well below the normal waterline.

5. Specific equipment descriptions, including core liners or how the core would be extracted from metal tubes, homogenized, sampled, and coring devices need to be included in the QA/QC plan.

GRDA Response: GRDA continues to believe that site by site sampling is the most effective means for determining whether a proposed dredging project will result in the exposure of contaminants. While lake-wide sampling might be useful in predicting where contaminant displacement may occur, it would not necessarily indicate whether a particular dredging project would result in heavy metals exposure. Additionally, the cost of a comprehensive metals survey would be considerable, especially in light of the limited number of dredging requests. Therefore, GRDA does not believe such a plan would be an efficient expenditure of financial resources.

GRDA believes its dredging policy satisfies the concerns and recommendations of USFWS. The plan requires that sample collection be done by approved contractors according to best industry practices. It also requires that testing to be done by ODEQ and a USFWS approved lab. Further, it identifies the specific metals to be tested and acceptable concentration levels. To further alleviate the concerns of ODWC and USFWS, GRDA is willing to contract with a party approved by the resource agencies to collect all sediment samples and conduct the necessary tests on behalf of GRDA on a site by site basis. GRDA would include the costs it incurs as part of the permit fee.

10.6.6 Grazing

ODWC Comment: ODWC is concerned about the destructive consequences that grazing has upon shoreline habitat. ODWC recommends this section include plans to monitor the lake for unauthorized grazing, and to use fencing or alternative methods to keep unauthorized grazing from occurring.

GRDA Response: GRDA has included language in the SMP that it will monitor for unauthorized grazing during its regular helicopter and boat patrols of the lake and will take necessary action to stop unauthorized grazing.

2. Comments of the Oklahoma State Historic Preservation Office (SHPO)

SHPO Comment: The SHPO stated that the SMP's approach "is appropriate to take into account the effects of GRDA's undertakings on historic properties." However, it expressed concern regarding the development and implementation of the Historic Properties Management Plan (HPMP) pursuant to Article 404 of the FERC license for the Markham Ferry Project.

GRDA Response: GRDA filed a preliminary HPMP approximately one year ago. As a result of these comments from SHPO, GRDA has been in contact with the consultant it hired to prepare the HPMP and is working with it to complete the project.

3. Comments of the Oklahoma Department of Environmental Quality (ODEQ)

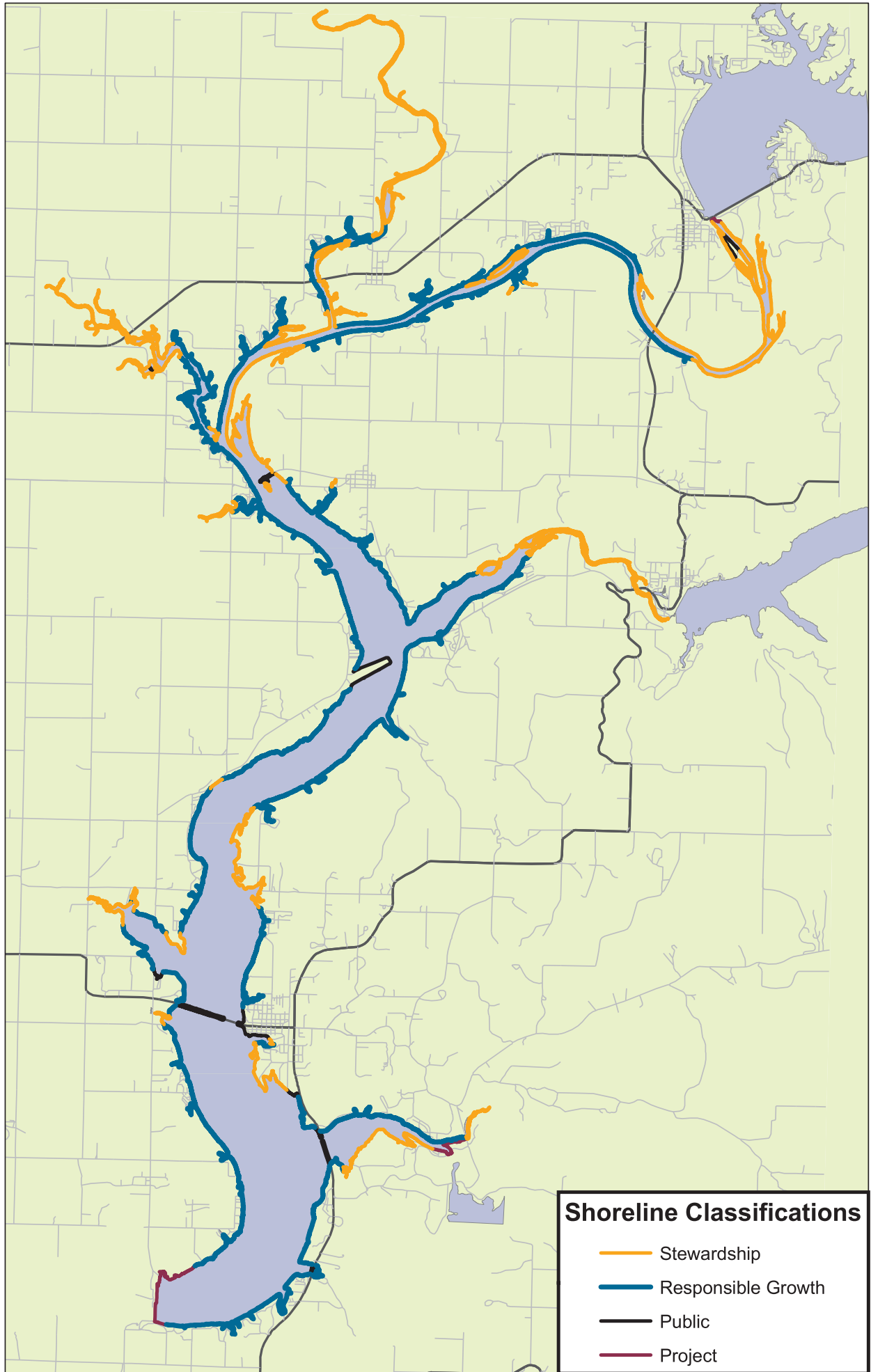
ODEQ Comment: ODEQ commented that updated versions of the state impaired waters list and BUMP reports are now available.

GRDA Response: GRDA has incorporated updated information as applicable.

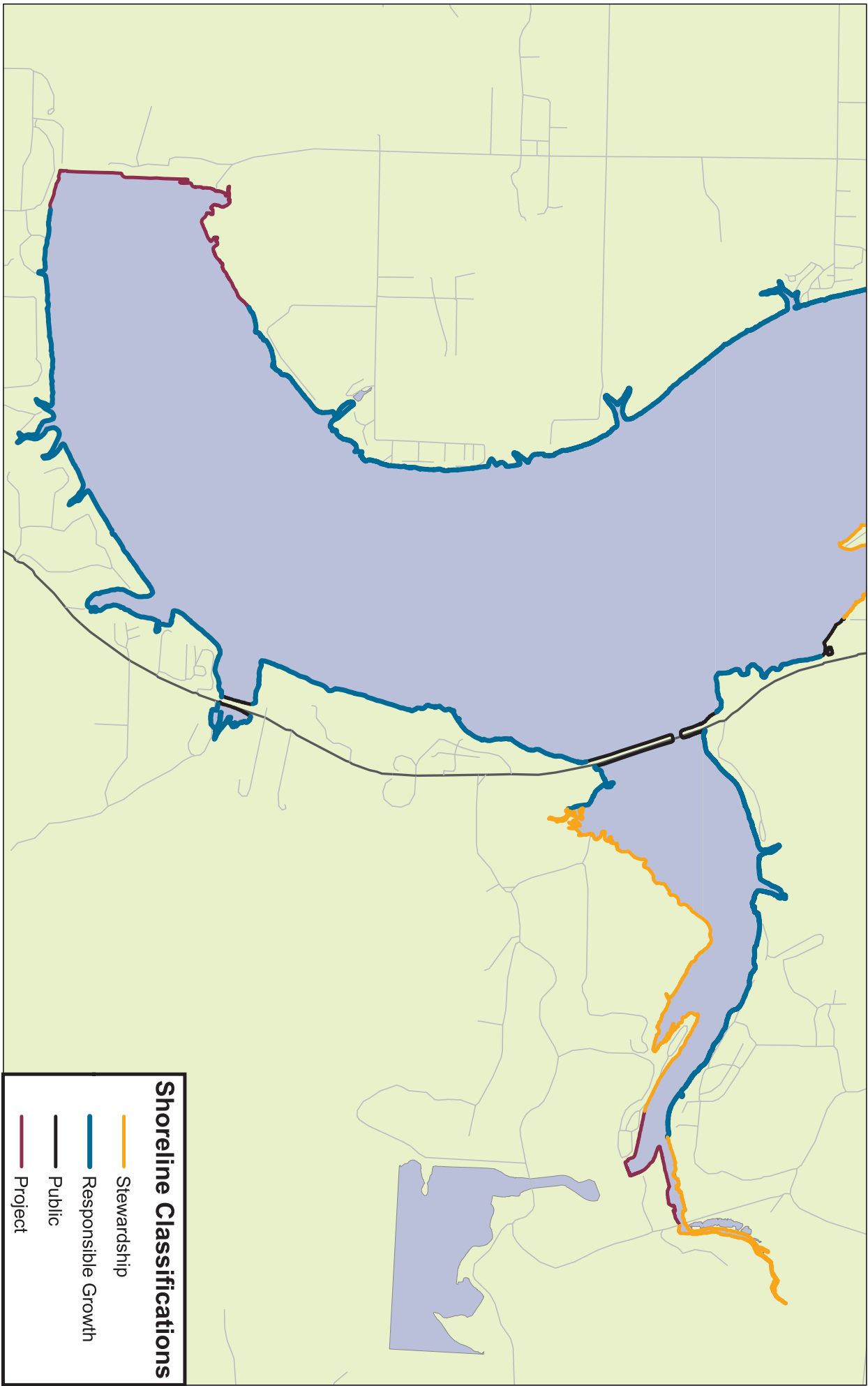
APPENDIX B

SHORELINE MANAGEMENT CLASSIFICATION MAPS

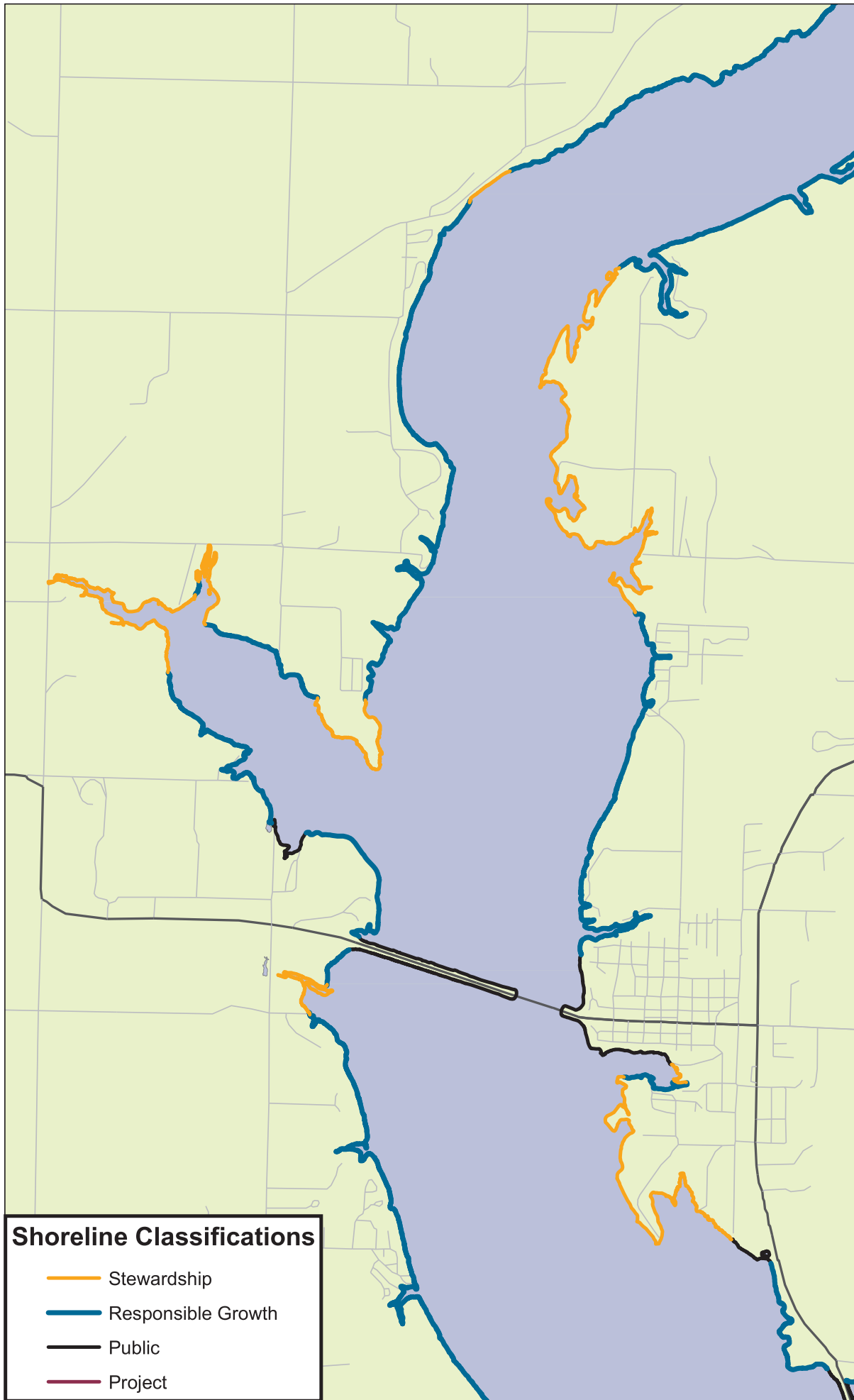
Map 1. Lake Hudson - All



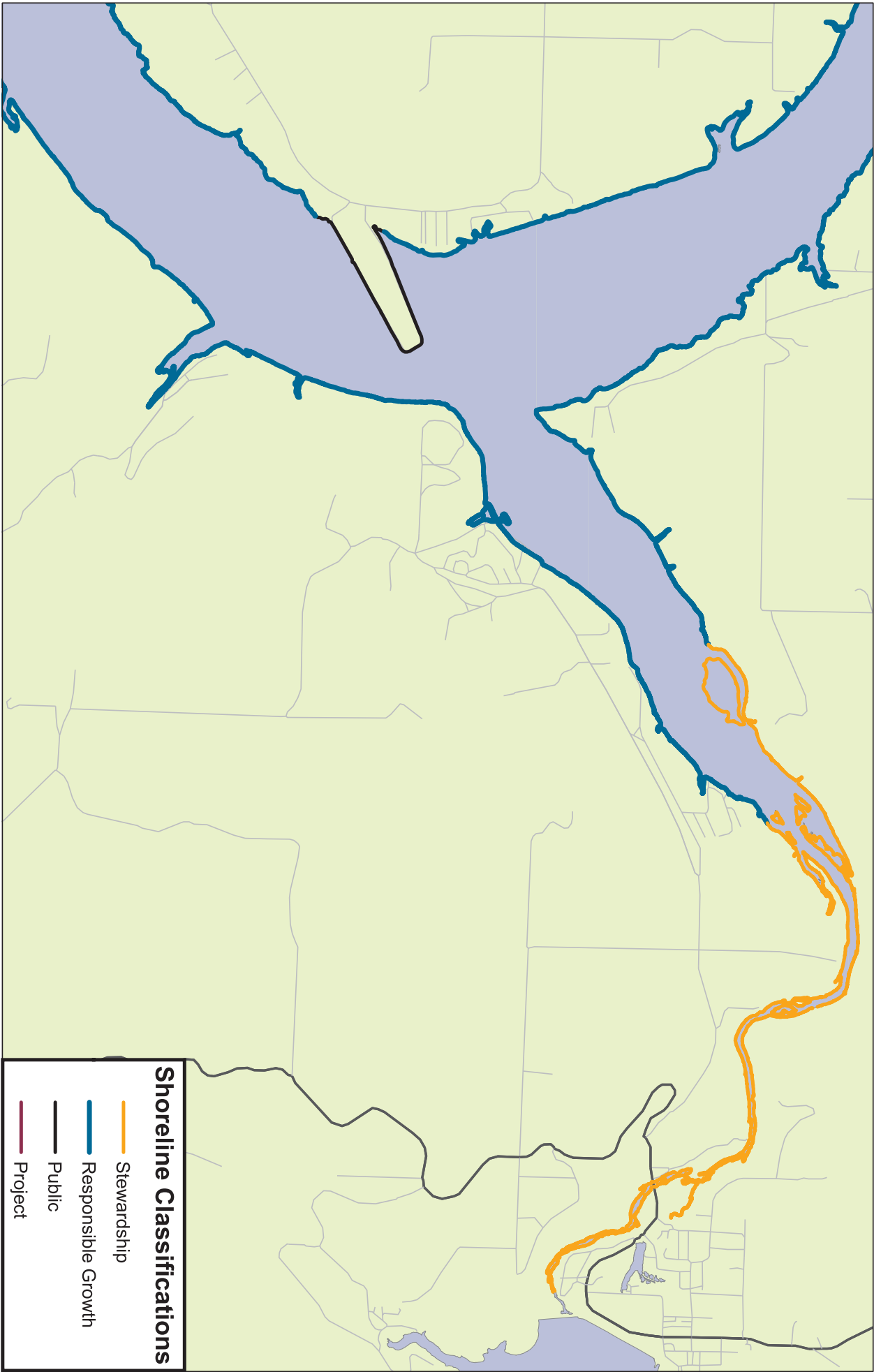
Map 2. South Lake Hudson



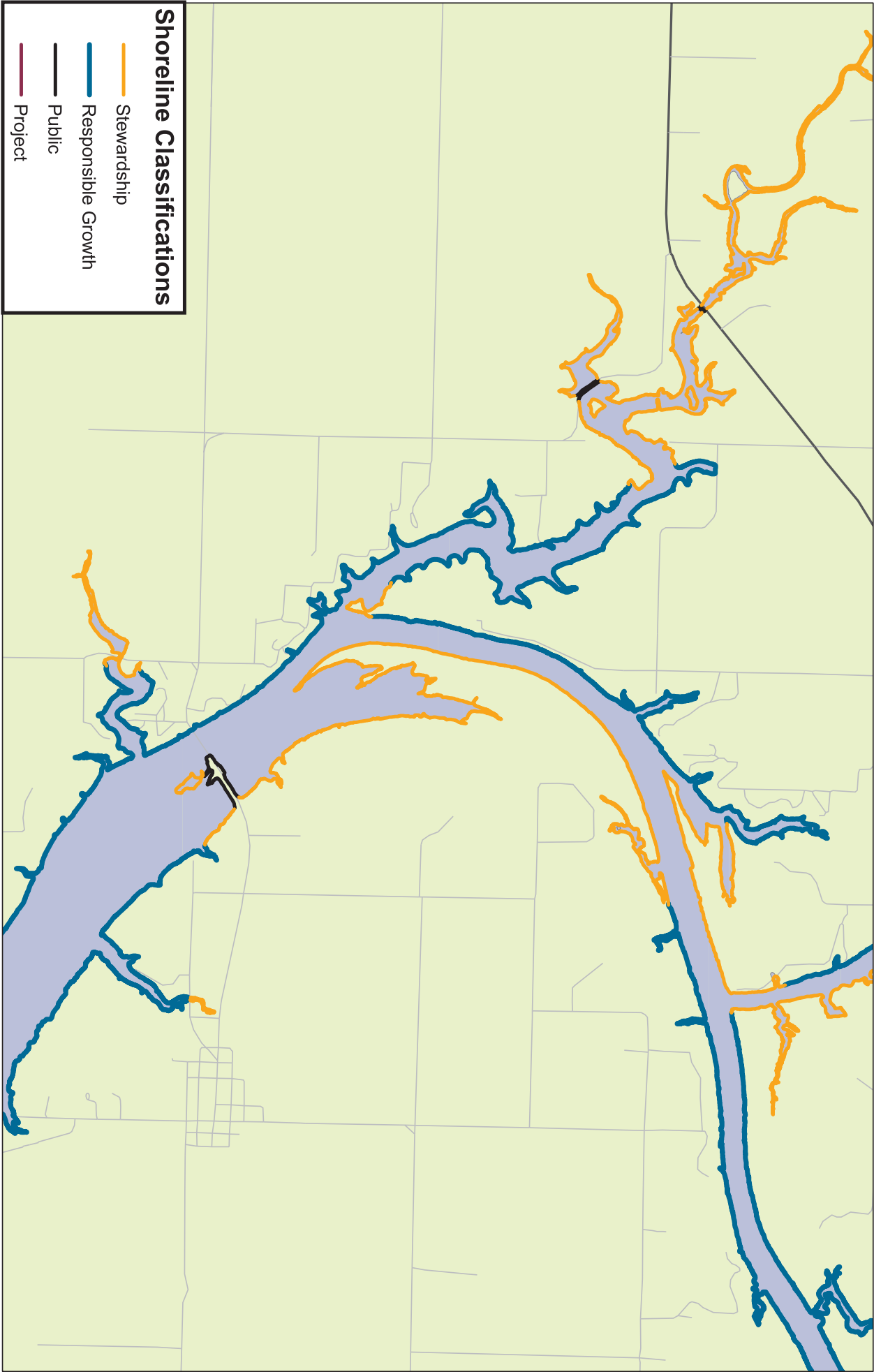
Map 3. Salina & Wolf Creek



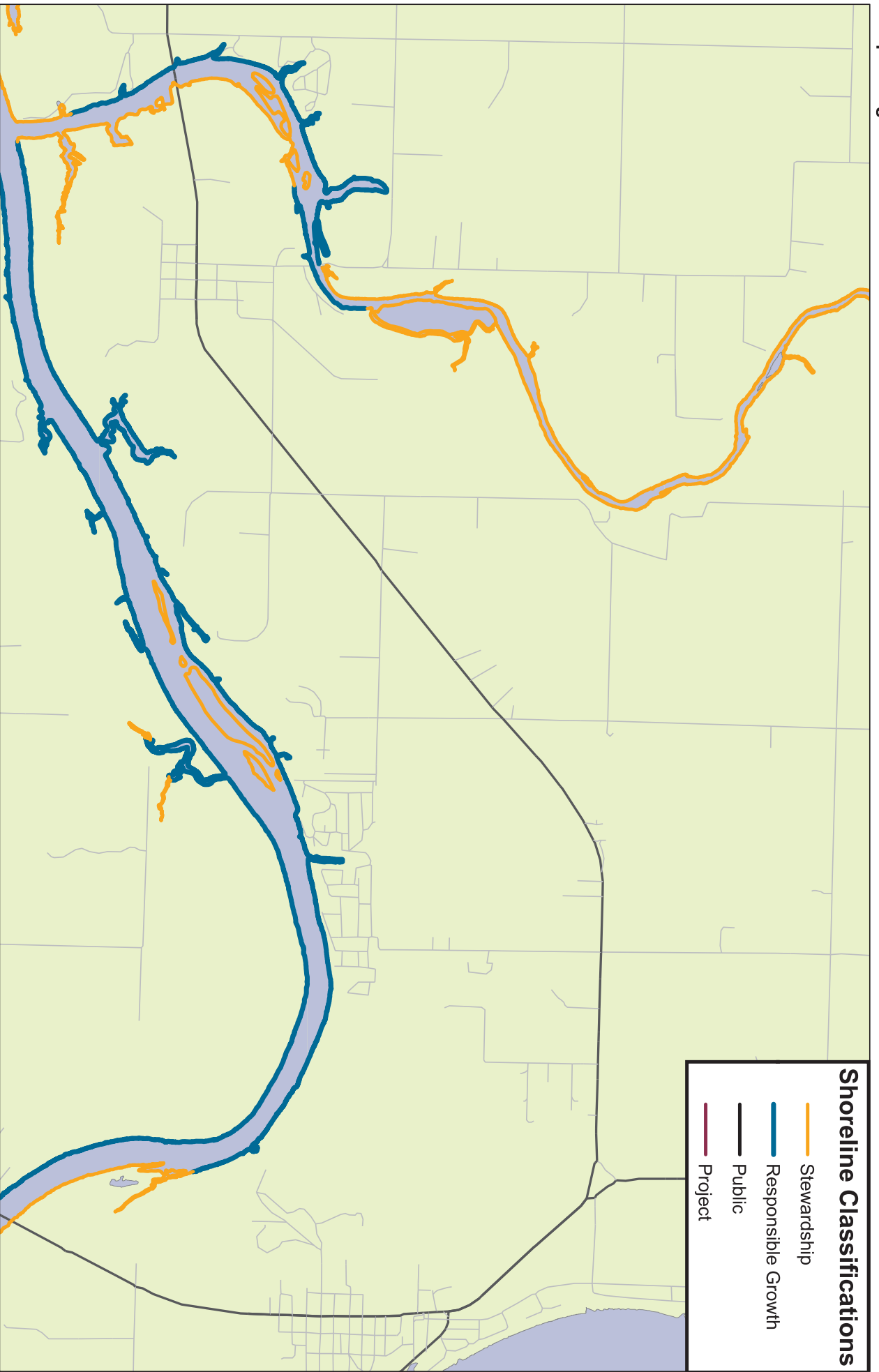
Map 4. The Turnaround & Spavinaw Creek



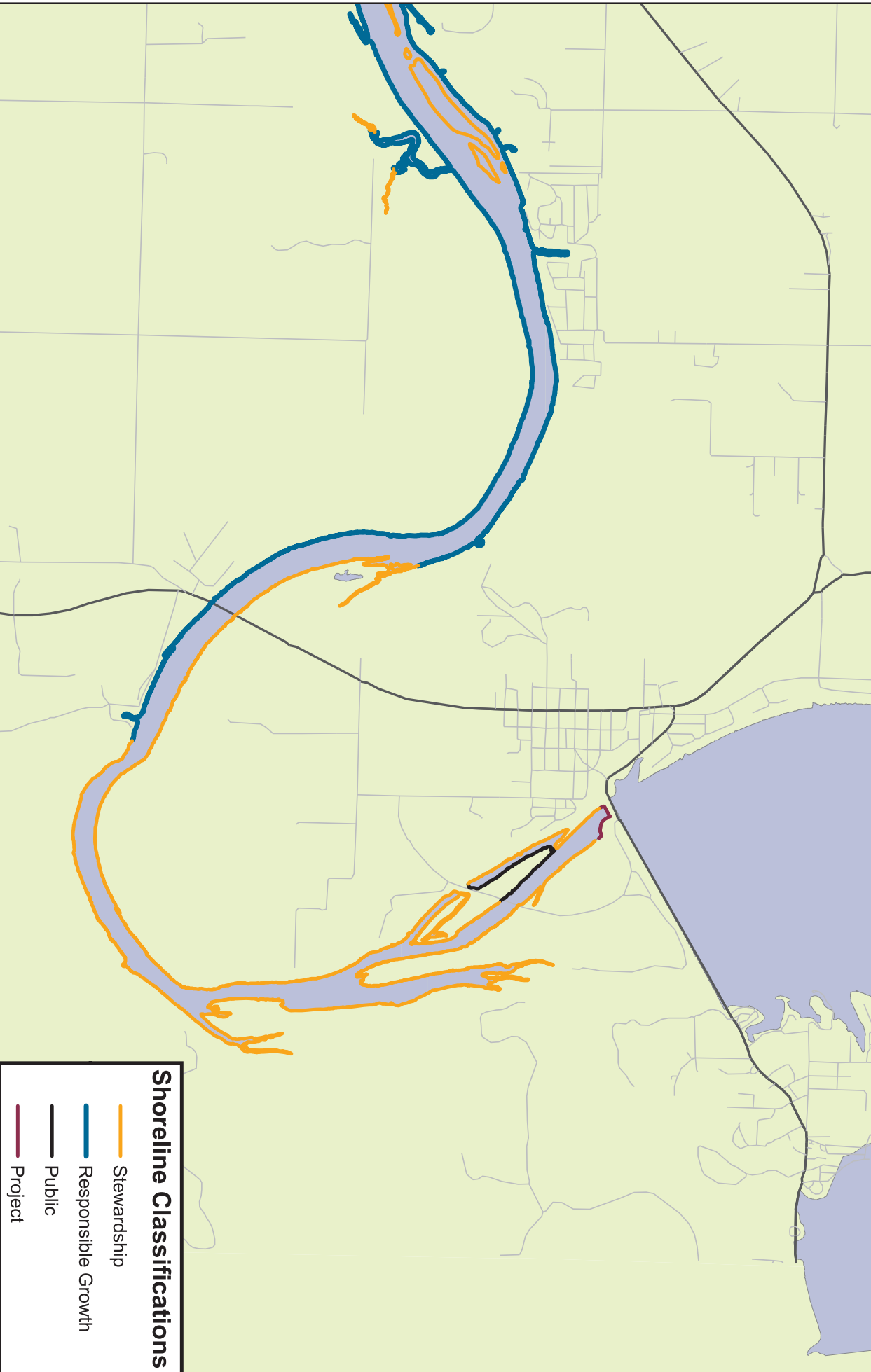
Map 5. Strang & Rock Creek



Map 6. Big Cabin Creek



Map 7. North Lake Hudson



Shoreline Classifications

- Stewardship
- Responsible Growth
- Public
- Project

APPENDIX C

**LICENSE ARTICLES RELEVANT TO THE
MARKHAM FERRY PROJECT'S SHORELINE MANAGEMENT**

Article 403. Threatened and Endangered Species Management Plan. Within six months of license issuance, the licensee shall file, for Commission approval, a threatened and endangered species management plan for the Markham Ferry Project.

For the bald eagle, the plan shall include: (a) provisions for annual surveys to monitor for bald eagle presence and habitat use (both nesting and roosting); (b) provisions for defining and maintaining specific buffer distances around any roost sites and nest sites located at the project; (c) reporting the results of monitoring; (d) measures to identify, protect, and enhance winter roosting habitat including specific timber management practices to enhance potential roosting or nesting habitat; and (e) provisions for placing signage or other information at public access sites explaining bald eagle sensitivity to human disturbance.

For the American burying beetle, the plan shall: (a) define the amount of proposed earth-disturbing activity that would trigger consultation with the U.S. Fish and Wildlife Service (FWS) and on-site surveys; (b) provide details as to what methods would be used to survey for the beetle; and (c) define procedures for both Commission notification and consultation with the FWS that would be implemented if the beetle is found during surveys to determine appropriate protective actions such as how the beetles would be handled and transported.

For the gray bat, the plan shall include measures to consult with the FWS and survey for gray bats if any project-related development is planned in potential cave areas and to protect the gray bat if any are found.

The licensee shall prepare the plan after consultation with the FWS and the Oklahoma Department of Wildlife Conservation. The licensee shall include with the plan an implementation schedule, documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the threatened and endangered species management plan. Implementation of the plan shall not begin until the plan is approved by the Commission. Upon Commission approval, the licensee shall implement the threatened and endangered species management plan, including any changes required by the Commission.

Article 404. Programmatic Agreement and Historic Properties Management Plan. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission and the Oklahoma State Historic Preservation Officer for

Managing Historic Properties That May Be Affected By Issuing a License to Grand River Dam Authority For the Continued Operation of the Markham Ferry Hydroelectric Project In Mayes County, Oklahoma (FERC Project No. 2183)” executed on June 19, 2006, including but not limited to the Historic Properties Management Plan (HPMP) for the project. Pursuant to the requirements of this Programmatic Agreement, the licensee shall file, for Commission approval, a HPMP within 18 months of issuance of this order. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HPMP, the licensee shall obtain approval from the Commission and the Oklahoma State Historic Preservation Officer, before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project’s area of potential effects.

Article 405. Recreation Plan. Within 12 months of license issuance, the licensee shall file a recreation plan for the Markham Ferry Project for Commission approval. At a minimum, the recreation plan shall include:

(a) operation and maintenance by the licensee of the project facilities noted in the Commission’s April 27, 2000, Environmental and Public Use Inspection including: the boating access sites at the dam and in the tailwater area; the tailrace fishing area; the boating access area just south of the Town of Salina; the boating access area in Corey Cove; the boating access area next to Dogwood Marina; and the boating access area at Rock Creek.

(b) as-built drawings of the facilities in item (a), above, with the project boundary clearly indicated as enclosing the facilities;

(c) an inventory of existing recreation facilities and recreational use at the project including: (i) a description of all (public and private) formal and informal recreation facilities that provide access to project land and water; (ii) a map showing the recreation facilities identified in item (i) in relation to the project boundary; and (iii) a description of the number and type of recreational amenities at each site, the site capacity and identification of the owner and the entity responsible for operation and maintenance;

(d) an assessment of the current condition and capacity of public recreation facilities (state, city or GRDA-provided) at the project compared to current demand;

(e) an assessment of anticipated future recreation trends and needs and a description of any areas set aside at that project for potential future recreational access;

(f) an evaluation of any conflicts associated with recreational use at the project, such as crowding or competing uses;

(g) an implementation plan with specific measures the licensee will provide to improve recreational access and opportunities and reduce use conflicts based on identified needs consistent with the shoreline management plan being developed pursuant to Article 406; (f)

(h) provisions for making information on project recreation facilities and opportunities available to the public; and

(i) provisions for reviewing and updating the recreation plan.

The licensee shall prepare the recreation plan after consultation with the U.S. Fish and Wildlife Service; Department of the Army, Corps of Engineers; Oklahoma Department of Wildlife Conservation; and Oklahoma Tourism and Recreation Department, State Parks Division. The licensee shall include with the recreation plan an implementation schedule, documentation of consultation, copies of comments and recommendations on the completed recreation plan after it has prepared and provide to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the recreation plan. Implementation of the recreation plan shall not begin until the plan is approved by the Commission. Upon Commission approval, the licensee shall implement the recreation plan, including any changes required by the Commission.

Article 406. Shoreline Management Plan. Within 12 months of license issuance, the licensee shall file a shoreline management plan for the Markham Ferry Project with the Commission for approval. The plan shall include, at a minimum: (a) a discussion of the plan's purpose, goals, and objectives; (b) a discussion of key issues associated with shoreline management at the project, and how issues were addressed in developing the plan; (c) an identification and description of land use along the project shoreline, including maps identifying the locations of land use types, a description of how these use classifications were defined and delineated, and descriptions of activities and uses that would be allowed within those classifications; (d) a description of all types of permitted uses, the permit application process, and guidelines for applying for a construction permit within the project boundary; (e) measures to protect water, fish, and wildlife during shoreline development activities, including testing sediments for contaminants if dredging is proposed; (f) a description of management policies, monitoring programs, and enforcement; (g) provisions for periodically reviewing

and updating the shoreline management plan; (h) provisions for consultation with agencies and other interested parties in the implementation of the shoreline management plan; (i) measures to protect important shoreline habitat areas and cultural resources; and (j) provisions for coordination with the threatened and endangered species management plan (Article 403), historic properties management plan (Article 404), and recreation management plan (Article 405).

The plan shall be developed in consultation with the U.S. Fish and Wildlife Service; Department of the Army, Corps of Engineers; Oklahoma Water Resources Board; Oklahoma Department of Wildlife Conservation; and Oklahoma Tourism and Recreation Department, State Parks Division. The licensee shall include with the plan an implementation schedule, documentation of consultation, copies of comments and recommendations on the completed shoreline management plan after it has been prepared and provided to the agencies, and specific descriptions of how their comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the shoreline management plan. Implementation of the shoreline management plan shall not begin until the plan is approved by the Commission. Upon Commission approval, the licensee shall implement the shoreline management plan, including any changes required by the Commission.

Article 407. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy are consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The types of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancements. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. If no conveyance was made during the prior calendar year, the licensee shall so inform the Commission in writing no later than January 31 of each year.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of, project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or

waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is 5 acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands shall occur in a manner that shall protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article shall be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

APPENDIX D

**SUGGESTED BEST MANAGEMENT
PRACTICES FOR NON-PROJECT LANDS**

Buffer Zones and Vegetation Management

Vegetated shorelines are an important component of a healthy reservoir ecosystem. These natural buffers act as filters, facilitating the absorption and processing of runoff pollutants. This filtering reduces the amount of potentially harmful contaminants that enter the lake and contribute to water quality degradation. In addition to filtering pollutants, vegetation (preferably native species) works to preserve the physical integrity of the shoreline, preventing excessive erosion that can lower water quality and degrade aquatic habitat. Naturally, vegetated shorelines improve the aesthetic integrity of the reservoir and provide habitat for aquatic and terrestrial species. The following practices are an integral part of GRDA's efforts to maintain and improve lands, water quality protection, shoreline stabilization, aesthetics, and wildlife habitat within the Project boundary. As such, GRDA recommends these practices to property owners outside the Project boundary as well.

1. Plant native trees, shrubs, and flowers for landscaping and gardens to reduce watering as well as chemical and pesticide use.
2. Preserve or establish an unmanaged filter strip of natural vegetation along the shoreline and keep clearing of native trees and vegetation to a minimum. GRDA recommends a buffer measuring a minimum of xx feet horizontally from the top of the normal pool elevation.
3. Plant a low maintenance, slow growing grass recommended for soil conditions and climate.
4. Maintain the grass as high as possible to shade out weeds and improve rooting so less fertilizing and watering are required.
5. Avoid dumping leaves or yard debris on or near the shoreline.

The introduction or planting of invasive plant species is prohibited on GRDA lands and waters. In addition to any species designated by the Oklahoma Department of Wildlife Conservation, a list of such species includes:

(1) Invasive or pest plants: Russian Olive; Sumac; Paper Mulberry; Saltcedar or Tamarisk; Siberian Elm; Eastern Redcedar; Poison Ivy; Poison Oak; Poison Sumac.

(2) Noxious aquatic plants:

Azolla pinnata – Mosquito Fern (aka – Water Velvet, Water Fern); *Caulerpa taxifolia* – Caulerpa (aka – Mediterranean Clone of Caulerpa); *Eichhornia azure* – Anchored Water Hyacinth (aka – Rooted Water Hyacinth, Blue Water Hyacinth, Saw-petal Water Hyacinth); *Hydrilla verticillata* – Hydrilla (aka – Florida Elodea, Star Vine, Oxygen Plant, Oxygen Weed); *Hygrophila polysperma* – Hygro (aka – Miramar Weed, Green Hygro, Oriental Ludwigia, East Indian Hygrophila); *Ipomoea aquatica* – Water Spinach (aka - Swamp Morning Glory, Chinese Water Spinach, Water Bindweed, Aquatic Morning Glory); *Lagarosiphon major* – African Elodea (aka – Oxygen Weed); Limnophila species – Ambulia (aka – Asian Marshweed, Limno, Red Ambulia, Indian Ambulia); *Lythrum salicaria* – Purple Loosestrife (aka – Loosestrife); *Marsilea quadrifolia* – Marsilea (aka – European Waterclover, Four-leaf Clover Fern, Water Fern, Water Clover, Hairy Pepperwort); *Marsilea mutica* – Australian Waterclover (aka – Varigated Waterclover, Mardoo); *Marsilea minuta* – Waterclover; *Melaleuca quinquenervia* – Paperbark Tree (aka – melaleuca, Cajeput, Punk); *Monochoria hastata* – Cat's Claw (aka – Monochoria); *Ottellia alismoides* – Duck Lettuce; *Sagittaria sagittifolia* – Japanese Arrowhead (aka – Hawaiian Arrowhead, Common Arrowhead, Chinese Arrowhead); *Salvinia auriculata* – Gian Salvinia (aka – Butterfly, Fern, Water Fern, Water Moss); *Salvinia biloba* – Gioan Salvinia (aka – Salvinia); *Salvinia herzogii* – Gian Salvinia (aka – Salvinia); *Salvinia molesta* – Gian Salvinia (aka – Salvinia, Water Velvet, Karibaweed, Koi Kandy); *Solanum tampicense* – Wetland Nightshade; *Sparganium erectum* – Exotic Bur-reed; *Glossostigma diandrum* – Mud Mat.

(3) Noxious non-aquatic plants: Musk Thistle; Canada Thistle; Scotch Thistle.

Water Quality

Water quality is an important indicator of the overall health of Grand Lake. Water quality not only affects aquatic and terrestrial wildlife, but also the health and well-being of individuals and communities that surround the Project. Water quality can be impaired in several ways, one of which is through the introduction of pollutants from nonpoint sources (NPS). Water run-off introduces NPS pollution into these reservoirs. Agriculture, forestry, construction, and various other land use activities contribute to non-point pollution. As water runs off surrounding lands, it picks up sediment, bacteria, oil, grease, and other pollutants as well as nutrients such as nitrogen and phosphorus. Excessive levels of NPS pollution can overwhelm a reservoir's natural filtering abilities and can lead to a decrease in water quality levels. For a complete technical reference concerning water quality on Grand Lake, please see the water quality reports on the Oklahoma Office of the Secretary of the Environment website.

APPENDIX E

GRDA PERMITTING RULES & APPLICATIONS

GRDA LAKE RULES

TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES

SUBCHAPTER 1.

DEFINITIONS, PURPOSE AND APPLICATION

- 300:35-1-1. Definitions
- 300:35-1-2. Statutory authority
- 300:35-1-3. Application of state laws
- 300:35-1-4. Registration of boats
- 300:35-1-5. Law enforcement division of GRDA
- 300:35-1-6. Permitted activities

SUBCHAPTER 3.

GENERAL PROVISIONS

- 300:35-3-1. Free access
- 300:35-3-2. Lake elevations
- 300:35-3-3. Liability
- 300:35-3-4. Payment of fees
- 300:35-3-5. Transfer or assignment of permit prohibited
- 300:35-3-6. Cancellation/termination of permit or license
- 300:35-3-7. Rights reserved
- 300:35-3-8. Roads and highways
- 300:35-3-9. Fishing and hunting
- 300:35-3-10. Firearms
- 300:35-3-11. Gas and oil storage
- 300:35-3-12. Health and sanitation
- 300:35-3-13. Repeal

SUBCHAPTER 5.

BOATING SAFETY RULES

- 300:35-5-1. Careful operation of a vessel
- 300:35-5-2. Towing activities
- 300:35-5-3. Flotation device required
- 300:35-5-4. Sitting and standing in vessel
- 300:35-5-5. Required equipment
- 300:35-5-6. Prohibited areas
- 300:35-5-7. Night speed limit
- 300:35-5-8. Skiing prohibited
- 300:35-5-9. Persons on personal watercraft

SUBCHAPTER 7.

VESSELS

- 300:35-7-1. Inspection, registration and certificate of safety
- 300:35-7-2. Loose and derelict vessels
- 300:35-7-3. Anchorages
- 300:35-7-4. Vessel operating distance

- 300:35-7-5. Water muffling
- 300:35-7-6. Noise abatement
- 300:35-7-7. Wake damage
- 300:35-7-8. Minimum age
- 300:35-7-9. Hazardous acts
- 300:35-7-10. W.R. Holway reservoir
- 300:35-7-11. Penalties
- 300:35-7-12. Duck Creek boating rules

SUBCHAPTER 9.

SANCTIONED EVENTS

- 300:35-9-1. Sanctioned event definition
- 300:35-9-2. Permit required
- 300:35-9-3. Public and environmental safety

SUBCHAPTER 11.

PERMITS FOR WHARVES, LANDINGS, BUOYS, BREAKWATERS AND DOCKING FACILITIES

- 300:35-11-1. Private use
- 300:35-11-2. Commercial use
- 300:35-11-3. Waivers
- 300:35-11-4. Electrical inspections
- 300:35-11-5. Breakwaters
- 300:35-11-6. Buoys
- 300:35-11-7. Railways, tram systems, fences, ramps and retaining walls
- 300:35-11-8. Removal and cancellation for failure to comply
- 300:35-11-9. Location and site to be returned in good condition
- 300:35-11-10. GRDA sole judge
- 300:35-11-11. Expiration of permit
- 300:35-11-12. Dock modification prohibited

SUBCHAPTER 13.

PERMITS FOR DIKES, EXCAVATIONS, DREDGINGS, EROSION CONTROL DEVICES, AND SHORELINE STABILIZATION

- 300:35-13-1. Permit required
- 300:35-13-2. Erosion control devices
- 300:35-13-3. Excavation and dredging
- 300:35-13-4. Shoreline stabilization
- 300:35-13-5. Penalty
- 300:35-13-6. Expiration of permit

SUBCHAPTER 15.

COMMERCIAL USES OF THE LAKES AND LANDS OF GRDA

- 300:35-15-1. Definition
- 300:35-15-2. Dock installer's permit
- 300:35-15-3. Penalty for violation of dock installer's permit

- 300:35-15-4. Dredging contractor's permit
- 300:35-15-5. Penalty for violation of dredging contractor's permit
- 300:35-15-6. Commercial boat operators permit
- 300:35-15-7. Penalty for violation of commercial boat operators permit

SUBCHAPTER 17.

RAW WATER PERMITS

- 300:35-17-1. Definition
- 300:35-17-2. Permit required
- 300:35-17-3. Irrigation billing
- 300:35-17-4. Location of diversion
- 300:35-17-5. Construction and maintenance

SUBCHAPTER 19.

RIGHTS OF ABUTTING LANDOWNERS

- 300:35-19-1. Abutting landowner's rights

SUBCHAPTER 21.

ADMINISTRATION OF RULES AND HEARINGS

- 300:35-21-1. General manager duties
- 300:35-21-2. GRDA Board of Directors duties
- 300:35-21-3. Hearings for violation of rules
- 300:35-21-4. Hearing officer
- 300:35-21-5. Report and record
- 300:35-21-6. Final order
- 300:35-21-7. Administrative appeal
- 300:35-21-8. Noncompliance, violations and penalties

SUBCHAPTER 23.

FOUR-WHEEL VEHICLES, OFF-ROAD VEHICLES AND ALL TERRAIN VEHICLES

- 300:35-23-1. Designated areas
- 300:35-23-2. Passengers prohibited
- 300:35-23-3. Low gear required
- 300:35-23-4. Racing prohibited
- 300:35-23-5. Lights required
- 300:35-23-6. Roll bar and seat belt requirements
- 300:35-23-7. No liability
- 300:35-23-8. Alcoholic beverages prohibited
- 300:35-23-9. Signage
- 300:35-23-10. Penalty

SUBCHAPTER 25.

[RESERVED]

SUBCHAPTER 27.

VEGETATION MANAGEMENT PLAN

300:35-27-1. Scope and intent

300:35-27-2. Applicability

300:35-27-3. Permits

300:35-27-4. Vegetation management

300:35-27-5. Waivers

300:35-27-6. FERC approval

300:35-27-7. Penalties

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 1. DEFINITIONS, PURPOSE AND APPLICATION

Current through 6/15/2009

300:35-1-1. Definitions

The following words and terms, when used in this Chapter, shall have the following meaning, unless the context clearly indicates otherwise:

"Authority or GRDA" means the Grand River Dam Authority.

"Board" means the Board of Directors for the Grand River Dam Authority.

"GM" or **"CEO"** means the General Manager and/or the Chief Executive Officer of the Grand River Dam Authority.

"GRDA land or GRDA property" means the land owned by GRDA. The location and boundaries of GRDA land is determined by a legal description (generally described by metes and bounds). Many times, a survey is necessary to determine the boundary of GRDA land. A particular elevation does not necessarily determine the boundary of GRDA land. Additionally, GRDA and/or the U.S. Army Corps of Engineers may have flowage easements over land.

"Wake" means the track of waves left by a vessel or other object moving through the water and such waves are greater than the natural waves in the immediate area of the vessel or are cresting and showing white water or may cause injury to any person or property.

"Waters of GRDA" means and refers to the waters of the Grand River and its tributaries, including, but not limited to, Grand Lake O' the Cherokees, Lake Hudson, and the W.R. Holway Reservoir.

300:35-1-2. Statutory authority

The Act ([82 O.S.2001, § 861 et seq.](#), as amended) creating the Grand River Dam Authority prescribes the use that may be made of the properties and waters of GRDA and authorizes GRDA to promulgate, prescribe and enforce rules and regulations for the use, for recreational and commercial purposes, of its lakes and shorelands, including the use of firearms and the inspection of all vessels of every character proposing to operate or operating on said lakes. The travel of vessels on the waters of GRDA shall be in keeping with the following rules of GRDA in the interest of public health, safety and convenience in the use of the waters and the shorelands of GRDA.

300:35-1-3. Application of state laws

The laws of the State of Oklahoma, including the Oklahoma Boating Safety Regulation Act, [63 O.S.2001, § 4200 et seq.](#), as amended, and the Oklahoma Penal Code, [21 O.S.2001 § 1 et seq.](#), as amended, apply to the waters of GRDA, in addition to the rules set out herein. Failure to comply with these laws and Rules may constitute a criminal offense.

300:35-1-4. Registration of boats

The Oklahoma Vessel and Motor Registration Act, [63 O.S.2001, § 4001 et seq.](#), as amended, applies to the waters of GRDA and must be complied with in addition to the Rules herein. Every vessel subject to the provisions of the Oklahoma Vessel and Motor Registration Act must have state registration and a current license by no later than June 30 of the current state fiscal year.

300:35-1-5. Law enforcement division of GRDA

- (a) GRDA has created a law enforcement division for the purpose of enforcing these Rules on the waters and land of GRDA.
- (b) The members of GRDA's law enforcement division are hereby declared to be the enforcement officers for GRDA. The enforce-

ment officers for GRDA may enforce GRDA rules and regulations, those rules and regulations as may be issued pursuant to the provisions of [Section 4200 et seq. of Title 63 of the Oklahoma Statutes](#), the provisions of [Sections 861 et seq. of Title 82 of the Oklahoma Statutes](#), and all violations of criminal laws occurring within the boundaries of the counties where real property owned or leased by GRDA is located. The enforcement officers shall have the power of peace officers during the performance of their duties, except in the serving and execution of civil process.

(c) The officers shall, in the event of emergency, assist in the rescue of any person who may be in danger and shall assist in the saving of any property that is in danger of being lost or damaged. The officers shall have the authority to stop and board any vessel at any time for the purpose of conducting a safety inspection. They shall require the operator of any vessel operating on the waters of the lakes in any manner which is not in compliance with these Rules, or any applicable state law, to immediately remove said vessel from the lake until compliance has been had.

(d) The officers are charged with the duty of examining and inspecting proposed locations for wharves, docks, dikes, anchorages, boat houses or any proposed structures or improvements to be made upon the waters or lands of GRDA, and issuing certificates of inspection; and causing all vessels to be registered with proper registration numbers, or permit numbers, which shall be displayed upon such vessels.

(e) GRDA's law enforcement officers may cooperate with federal, state and local enforcement officers in the enforcement of all federal and state laws upon the waters, lands and properties of GRDA.

300:35-1-6. Permitted activities

No person, firm, partnership, corporation or other entity shall perform any activity which requires a permit prior to the receipt of such permit from GRDA. For example, no dock may be placed upon the waters of GRDA until such time as the applicant receives written notice that such activity may take place. In the event a permitted activity takes place prior to the issuance of a permit, or written permission from GRDA, after notice and an opportunity to be heard as provided in Subchapter 21 herein, it may be ordered that no permit shall be issued for a period of time up to and including three (3) years. Additionally, GRDA may seek an injunction to prevent any further unauthorized activity.

**OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 3. GENERAL PROVISIONS**

300:35-3-1. Free access

The public shall have free access to the waters of the lakes and no charges shall be made to the public for the right to engage in hunting, fishing, swimming or non-commercial boating. The public shall comply with all state hunting and/or fishing laws and rules.

300:35-3-2. Lake elevations

Grand Lake, Lake Hudson, and W.R. Holway Reservoir are flood control and hydro electric power projects, and it is recognized and understood that the elevation of the waters in said lakes will vary from time to time as operations for flood control and hydro electric power generation demand, and the water rights granted under these Rules shall be subject to these conditions and all laws governing the Grand River Dam Authority and shall be subject to all federal and state laws and rules governing the control storage release and use of the waters of Grand River, Grand Lake, Lake Hudson, and W.R. Holway Reservoir.

300:35-3-3. Liability

(a) GRDA shall never be liable in any manner whatsoever because of the quantity or quality of the water in its lakes, nor shall GRDA ever be liable for any damage that the permittee may sustain to person or property which may be occasioned by or result from the construction, maintenance and operation of GRDA's projects and the Fort Gibson Reservoir.

(b) Neither GRDA nor any representative thereof assumes any responsibility for loss or damage to life or property by theft, storm, accident or otherwise, in connection with or growing out of the exercising of the privileges conferred by any permit which may be issued in accordance with these Rules.

(c) Nothing contained in these Rules shall operate to relieve the owners of vessels from complying with, or from the obligation of complying with, the applicable laws of the United States and the State of Oklahoma.

300:35-3-4. Payment of fees

No permit or license, private or commercial, shall be issued until the appropriate fee has been paid.

300:35-3-5. Transfer or assignment of permit prohibited

Transfer or assignment of permits or licenses issued hereunder (both private and commercial) shall not be made except with written consent and approval of GRDA. No person, firm or corporation shall allow his or its name to be used by any other person, firm or corporation to do any work under his or its permit.

300:35-3-6. Cancellation/termination of permit or license

(a) Permits and licenses issued pursuant to these Rules are subject to cancellation in the event the holder fails, refuses or omits to comply with any of the requirements of these Rules, the terms and conditions of the permit, or to make payments when due. In addition, GRDA will notify the Oklahoma State Department of Health and the utility company furnishing electricity of any water or irrigation pump reported to be in an unsafe electrical condition.

(b) Permits and licenses issued under and pursuant to these Rules may be terminated by either party upon giving the other party thirty (30) days written notice prior to the end of any calendar year.

300:35-3-7. Rights reserved

These Rules do not cover the taking or using of water for any purpose or use other than those specifically covered herein.

300:35-3-8. Roads and highways

The existing public rights-of-way to the waters or shorelands and boat ramps sponsored by GRDA shall remain open as a way of free public passage to and from the waters of GRDA.

300:35-3-9. Fishing and hunting

Fishing or hunting within restricted areas will not be permitted, nor will hunting or fishing be permitted within two hundred (200) feet of the tailraces below the dams; nor will hunting or fishing, except commercial bait operators, be permitted at such other points on or about the lakes where such use will unduly interfere with navigation or proper conduct of the business of GRDA or endanger the public.

300:35-3-10. Firearms

(a) Only shotguns and proper archery equipment are allowed on GRDA property, except that hunters may use rifles and pistols, in compliance with state laws and wildlife regulations, on GRDA property which has been designated as a Wildlife Management Area.

(b) All hunting on any GRDA property shall be conducted in accordance with Oklahoma Department of Wildlife Conservation regulations. If hunting within 3 mile of GRDA waters, only nontoxic shot may be used.

(c) The discharge of any firearms or bows in, over or across the waters of the lakes is expressly prohibited except as regulated by the Oklahoma Department of Wildlife Conservation. In no event shall the use of firearms or bows be conducted in a manner which interferes with the business of GRDA's projects or endangers the public.

(d) Persons properly licensed to carry concealed weapons may do so only in accordance with the laws of the State of Oklahoma.

300:35-3-11. Gas and oil storage

The keeping or storage of gasoline and other combustible fuels, except for fuel tanks installed in vessels, in, upon or about GRDA lands and waters will not be permitted unless the location and detailed storage plans therefor are first submitted to and approved by GRDA and comply with all applicable state and federal statutes.

300:35-3-12. Health and sanitation

(a) All sanitary rules, regulations, and laws shall be complied with prior to the granting or renewal of any GRDA permit.

(b) In the interest of public health, sanitation and safety, there shall be no camping on GRDA's lands except in a designated camping area.

(c) Bottles, cans, garbage, rubbish, refuse, debris, wreckage, bilge water containing oil or grease, or materials used in the process of cleaning the outer surfaces of vessels, or any other material of any kind shall not be thrown into or released upon the lakes or deposited or dumped upon the shores of the lakes or upon any land under the jurisdiction of GRDA.

(d) No septic tank, lateral line or lagoon shall be placed on the shorelands of GRDA. No sewage shall be disposed of in the waters or on the shorelands of GRDA. No person shall operate a vessel equipped with a marine toilet which is not a total retention system in accordance with federal regulations regarding marine toilets ([63 O.S.2001, § 4213\(B\)](#)).

(e) The preparation and marking of beaches shall be in such manner as to provide reasonable safety in their use. Commercial beaches

shall be provided with adequate and sanitary dressing rooms, toilets, showers and other necessary accessories for public convenience and safety.

300:35-3-13. Repeal

All rules and regulations adopted by the Authority which conflict with the provisions of these Rules are hereby revoked, cancelled and repealed.

**OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 5. BOATING SAFETY RULES**

Current through 6/15/2009

300:35-5-1. Careful operation of a vessel

No person shall operate or give permission to operate a vessel in a wake zone at a speed which is other than reasonable and prudent and which shows due regard for the existence of actual or potential hazards and obstacles, or in such a manner as to endanger the life, limb or property of any other person, or in such manner as to create a wake. For the purpose of this rule, "no wake zone" means any area posted with buoys or within one hundred fifty (150) feet of any boat ramp, dock, pier, or anchored or moored vessel. ([63 O.S. 2001, § 4210.4\(B\)](#))

300:35-5-2. Towing activities

(a) No person shall operate or give permission to operate a vessel on any waters of this state towing a person or persons using parasails or on water skis, a surfboard, a sailboard or similar device, nor shall any person engage in parasailing, water skiing, surfboarding, sailboarding or similar activity at any time between the hours from sunset to sunrise or at such time visibility due to other existing conditions is obscured so as to endanger life or property. ([63 O.S. Supp.2004, § 4212\(B\)](#)).

(b) Pursuant to [63 O.S.Supp.2004, § 4212](#), the following applies to water skiing, wakeboarding, or similar towing activities:

(c) No person shall operate or give permission to operate a vessel on any GRDA waters for towing a person or persons using parasails or on water skis, a surfboard, or similar device unless there is in such vessel:

(1) a person who is at least eight (8) years old, and who, in addition to the operator, is in a position to observe the progress of the person or persons being towed, or

(2) if the vessel is not a personal watercraft, an efficient wide angle convex rear view mirror installed on such vessel in such manner as to permit the person operating said vessel to face the direction of travel and be in a position to observe the progress of the person or persons being towed, or

(3) if the vessel is a personal watercraft, two (2) efficient wide angle convex rear view mirrors installed on such vessel in such manner as to permit the person operating such watercraft to face the direction of travel and be in a position to observe the progress of the person or person being towed.

(d) Water skiing shall be allowed with any watercraft which is designed to accommodate two or more persons.

300:35-5-3. Flotation device required

All vessels shall carry a U.S. Coast Guard approved flotation device (life preserver) for each person on board. The operator of a vessel less than twenty-six (26) feet in length, while under way, shall require each passenger twelve (12) years of age or younger to wear a U.S. Coast Guard approved flotation device. Any person operating or manipulating, or who is a passenger on a personal watercraft, water skis, a sailboard, surfboard, parasail or a similar device shall wear a U.S. Coast Guard approved flotation device. ([63 O.S.2001, § 4206.](#))

300:35-5-4. Sitting and standing in vessel

No person shall sit or ride on the sides of a vessel, a covered bow or the back of any seat of a vessel, or stand in a vessel while under way at any speed greater than idle or trolling speed; unless, the vessel is specifically designed for such use, pursuant to [63 O.S.2001, §§ 4210.6 & 4210.7.](#)

300:35-5-5. Required equipment

(a) Each vessel which is less than twenty-six (26) feet in length, other than a personal watercraft, shall be equipped with a paddle or set of oars, anchor, bailing device and fire extinguisher. All other vessels shall be equipped in accordance with Oklahoma state law.

(b) All vessels must be equipped with proper and working navigations and anchoring lights as provided by law.

300:35-5-6. Prohibited areas

All vessels are prohibited from entering any area within 200 feet below Pensacola, Kerr and Chimney Rock Dams. Vessels are prohibited within 500 feet below said dams during periods of hydrogeneration.

300:35-5-7. Night speed limit

It shall be unlawful for any person to operate any vessel upon the waters of GRDA, between the hours of one-half hour after sunset and one-half hour before sunrise at any speed in excess of thirty-five (35) miles per hour. Any person violating the provisions of this section shall be guilty of a misdemeanor and shall be punishable by a fine of not less than Fifty Dollars (\$50.00) nor more than Two Hundred Fifty Dollars (\$250.00). ([63 O.S. 2001, § 4219](#)).

300:35-5-8. Skiing prohibited

(a) No skiing is allowed upstream of the Strang Bridge on Lake Hudson, upstream of Twin Bridges on Grand Lake, in Elm Creek east of Grove water intake tower, upstream of the Harbors Marina on Duck Creek or upstream of the Lakemont Shores Ramp on Drowning Creek.

(b) Wake jumping is prohibited in Cowskin and Elk River and in any arm of Grand Lake that, in its name, ends in Creek, Cove or Hollow. Wake Jumping is defined as the act of repetitively crossing another vessel's wake in such a fashion that the crossing vessel's hull leaves the water.

300:35-5-9. Persons on personal watercraft

The number of persons riding on a personal watercraft shall be limited to that number as recommended by the manufacturer. Any person being towed behind a personal watercraft shall count as one (1) person riding on a personal watercraft.

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 7. VESSELS

Current through 6/15/2009

300:35-7-1. Inspection, registration and certificate of safety

- (a) All vessels operated upon the waters of GRDA may be inspected at any time by GRDA's Law Enforcement for safety equipment.
- (b) All vessels and equipment used for transportation of the public for pecuniary gain or profit shall be subject to inspection during each permit year by GRDA.
- (c) All vessels must be licensed under the Oklahoma Vessel and Motor Registration Act.

300:35-7-2. Loose and derelict vessels

Any loose, derelict or apparently abandoned vessel found on the lakes, or shores of the lakes, may be impounded by GRDA, and any expense in connection with its impoundment shall be the responsibility of the owner.

300:35-7-3. Anchorages

Vessel anchorages shall not be allowed off the shore of the waters of GRDA in any one location for a continuous period in excess of forty-eight (48) hours. At the end of a forty-eight (48) hour period, a new anchorage may not be taken up within a distance of one (1) mile of the anchorage previously used. No buoy may be used as an anchorage without the permission of its owner.

300:35-7-4. Vessel operating distance

No person shall operate any vessel, including personal watercraft, within fifty (50) feet in proximity to another vessel when running at speeds of over ten (10) miles per hour. ([63 O.S.Supp.2004, § 4210\(F\)](#)).

300:35-7-5. Water muffling

Except for a sanctioned event, no person shall operate a vessel or motor which is not equipped with a muffler or muffler system in good working order. The use of cutouts, removal of mufflers or muffler baffles, cutting or punching of holes in mufflers or otherwise modifying the original muffler or muffling system installed by the manufacturer or any subsequent muffler or muffling system so as to increase or modify the noise level is prohibited. ([63 O.S.2001, § 4208](#)).

300:35-7-6. Noise abatement

No person shall operate a vessel that exceeds the noise level of ninety (90) decibels on an A-weighted scale when subjected to a sound level test as prescribed by SAE J2005 within fifty (50) feet of any public or private dock or at any location between the hours of 9:00 p.m. through 9:00 a.m. C.S.T.

300:35-7-7. Wake damage

All vessel operators shall be held responsible for any damage that their wake might cause to property. No person shall operate or give permission to operate a vessel in a wake zone at a speed which is other than reasonable and prudent and which shows due regard for the existence of actual or potential hazards and obstacles, or in such a manner as to endanger the life, limb or property of any other

person, or in such a manner as to create a wake. "No wake zone" means any area posted with buoys or within one hundred fifty (150) feet of any boat ramp, dock, pier or anchored or moored vessel.

300:35-7-8. Minimum age

No person shall cause, allow, authorize, or permit any child under twelve (12) years of age to operate and no child under twelve (12) years of age shall operate any vessel powered by a motor or combination of motors in excess of ten (10) horsepower or any sail-powered vessel sixteen (16) feet or greater in length, unless accompanied on the vessel by another person sixteen (16) years of age or older. [63 O.S.Supp. 2004, § 4210\(G\)](#)

300:35-7-9. Hazardous acts

(a) In addition to the rules of travel for operation of vessels upon the lakes, all vessels shall be operated in such a manner as will best safeguard the lives and property of others upon the lakes.

(b) Any person conducting himself/herself in such a manner as to endanger the health and safety of others upon the lakes or lands of GRDA, or violate any of the statutes of the State of Oklahoma, may be removed from the lakes or lands of GRDA and subject to the penalty of any applicable law.

300:35-7-10. W.R. Holway reservoir

With the exception of the Lake Patrol, vessels powered by internal combustion engines are not permitted on W.R. Holway Reservoir. Swimming is prohibited in the W.R. Holway Reservoir.

300:35-7-11. Penalties

(a) GRDA law enforcement personnel may verbally order any person, firm, partnership, corporation, or any other entity that is violating any provision found in Title 63 or Title 21 of the Oklahoma Statutes or in any GRDA rules to immediately exit the waters and/or lands of GRDA. Failure to obey the verbal order may result in the law enforcement personnel enforcing the provisions of [63 O.S.2001, § 4221](#) which provides that such failure to comply will constitute a misdemeanor punishable by a fine not to exceed Two Hundred Fifty Dollars (\$250.00).

(b) Additionally, any such person or entity, after notice and an opportunity to be heard as provided in Subchapter 21 herein, may be banned from the waters and/or lands of GRDA for a period of time up to, and including, ninety (90) days.

300:35-7-12. Duck Creek boating rules

Due to the unique nature of Duck Creek on the Grand Lake O' the Cherokees, GRDA implements, from time to time, special boating rules for the area. Please contact the GRDA Lake Patrol, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or see the website, www.GRDA.com for the current applicable Duck Creek Boating Rules.

**OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 9. SANCTIONED EVENTS**

Current through 6/15/2009

300:35-9-1. Sanctioned event definition

A sanctioned event is any organized event which has been permitted by GRDA that occurs on the waters and lands of GRDA, including, but not limited to, regattas, motorboat or other boat races, marine parades, tournaments, fishing tournaments, "poker" runs, rock-climbing, and exhibitions.

300:35-9-2. Permit required

No sanctioned event shall be held without a written permit issued by GRDA at least ten (10) days prior to the event. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

300:35-9-3. Public and environmental safety

- (a) GRDA law enforcement shall require that any sanctioned event be held in a safe manner and under safe environmental conditions.
- (b) Any vessel operating in an unsafe manner, or without due regard to other vessels, water skiers, swimmers, sanctioned events, restrictive markers or buoys, existing wind or weather conditions, waves, or wakes, may be immediately removed from the waters of GRDA by GRDA law enforcement.
- (c) GRDA may require that any sanctioned event conform to specific environmental requirements for the purpose of protecting fish, wildlife, or habitat. Such requirements shall be specified on the sanctioned event permit. Any sponsor of a sanctioned event, or any participant in such sanctioned event, which fails to follow the environmental requirements may be immediately removed from the waters of GRDA by GRDA law enforcement.
- (d) In addition to the penalties specified herein, any person violating this rule may be subject to criminal sanctions as provided by law and any other penalties as provided in 300:35-7-11.

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 11. PERMITS FOR WHARVES, LANDINGS, BUOYS, BREAKWATERS AND DOCKING
FACILITIES

Current through 6/15/2009

300:35-11-1. Private use

No person, firm, association, partnership or corporation may construct, install, relocate or operate any wharf, dock, landing, anchorage, boat house or breakwater on waters or shorelands of GRDA until a private dock permit shall have been issued by GRDA. An application for a private dock permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

300:35-11-2. Commercial use

No person, firm, association, partnership or corporation may construct, install, relocate or operate any wharf, dock, landing, anchorage, boat house or breakwater for pecuniary profit or gain, directly or indirectly, on waters or shorelands of the lakes until a commercial dock permit shall have been issued by GRDA. The Federal Energy Regulatory Commission (FERC) must also approve an application. An application for a commercial dock permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

300:35-11-3. Waivers

(a) Upon written application and hearing, the Board of Directors of GRDA may grant a waiver, exception or modification to the requirements imposed on private and/or commercial permit applicants. Additionally, the Board of Directors may impose additional requirements upon any such applicant. Such waivers, exceptions, modifications, or additional requirements shall be based upon the totality of the circumstances, in consideration of public and environmental concerns.

(b) In approving waivers of these rules, the Board shall consider positive and negative impacts to the following:

- (1) Characteristics, zoning and prevailing permitted uses within a half-mile radius of the proposed activity;
- (2) Shoreline topography and geometry;
- (3) Safety, navigation and flood control requirements;
- (4) Environmental impacts;
- (5) Potential economic development and tourism benefits;
- (6) Recreational use impacts; and
- (7) Statutory mandates.

(c) The applicant shall be required to give notice and the Board shall allow for public comment before acting on any request for a waiver of these rules.

(d) Public notice of the waiver request shall be given in accordance with guidelines established by the GRDA staff and shall include:

- (1) Publication in newspapers of general circulation, including the county in which the property is located; and
- (2) Mailing of written notice, via certified mail, return receipt requested, to all owners of property within a three hundred (300) foot radius of the exterior boundaries of the subject shoreline property. Copies of certified mail receipts must be submitted to GRDA prior to any hearing and before GRDA posts any notice.
- (3) The waiver application shall be posted on GRDA's website for a period of at least thirty (30) days.
- (4) Any other notice as required by GRDA.

300:35-11-4. Electrical inspections

- (a) Each commercial and private boat dock shall comply with and be maintained in accordance with all laws, regulations and codes regarding electrical systems and wiring.
- (b) All commercial and private boat docks constructed or modified after June 1, 2006 shall be required to provide to GRDA, within thirty (30) days following completion, a certificate signed by a licensed electrical contractor, evidencing compliance with all laws, regulations and codes regarding electrical systems and wiring.
- (c) Before a dock permit may be transferred, a certificate signed by a licensed electrical contractor evidencing compliance with all laws, regulations and codes regarding electrical systems and wiring shall be provided to GRDA.

300:35-11-5. Breakwaters

- (a) A breakwater is a structure used to protect docks, shoreline, or other structures by stopping or slowing waves or wakes.
- (b) No breakwater shall be placed in the waters of GRDA without a permit. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.
- (c) Breakwaters must be anchored in permanent locations and must have proper lighting. The owner of a breakwater shall be responsible for maintaining it in a safe and environmentally acceptable manner.

300:35-11-6. Buoys

- (a) No buoy shall be placed or replaced without a permit from GRDA. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.
- (b) All buoys placed on the lakes shall be commercially manufactured units approved by the Lake Patrol and shall have reflective tape or paint on the top side. Any buoy not maintained in its proper location by the owner shall be subject to removal by GRDA. Any buoys, lighthouses or other types of markers placed with the permission of or installed and maintained by GRDA are primarily warning devices for the convenience of the public and should not be relied upon solely as navigational aids. GRDA assumes no liability or responsibility for loss or damages to life or property arising out of the public's reliance upon said devices.

300:35-11-7. Railways, tram systems, fences, ramps and retaining walls

(a) No private or commercial railways, tram systems, fences, ramps or retaining walls shall be constructed on GRDA property without first obtaining a permit. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

(b) Railways, tram systems, fences and retaining walls shall be maintained in a manner such that all electrical systems are to code, that environmental guidelines are met, and that the structures are safe and pose no risk or threat to the public.

(c) No ramp shall be constructed unless the ramp may be accessed by at least twenty-five (25) homeowners or the public at large. Approval from the U.S. Army Corps of Engineers may also be required.

(d) The applicant shall submit complete and detailed maps, plans and specifications for the proposed construction and its location, including a statement of the purpose(s) for which the work is to be done. The applicant must also be required to furnish a survey prepared by a licensed surveyor or engineer showing the location of GRDA's taking (property) line in the project area and shall have such line staked on the ground.

300:35-11-8. Removal and cancellation for failure to comply

(a) If, at any time, any such dock, wharf, boat house, breakwater, buoy or any other structure, private or commercial, is not constructed with generally-accepted building materials and pursuant to generally-accepted construction practices, or installed in accordance with the plans and specifications approved by GRDA, or if such works are not kept in good state of repair and in a good, safe and substantial condition, are not inspected by a licensed electrical contractor as provided herein, or upon failure of payment of any fee when due, GRDA, after notice and opportunity to be heard in accordance with Subchapter 21 herein, shall have the right to remove or cause to be removed from GRDA's waters and lands such structure and/or cancel any license or permit in the event the owner thereof fails to repair or remove the same after being notified by GRDA to repair or remove the same.

(b) Any loose or abandoned dock shall be impounded by GRDA and the owner shall be responsible for any expense incurred by GRDA. GRDA will notify the Oklahoma State Department of Health and the utility company furnishing electricity of any dock reported to be in an unsafe electrical condition.

(c) In the event GRDA removes a dock, wharf, boat house, breakwater, buoy, fence, retaining wall, railway or any other structure, private or commercial, the owner of same shall be required to pay all costs of such removal and may be required to pay all costs related to the repair and reclamation of GRDA lands and waters associated with the removal.

300:35-11-9. Location and site to be returned in good condition

Within thirty (30) days after expiration or termination of any permit, the holder shall remove all works and facilities from the lakes and lands of GRDA and shall leave the premises in as good condition as they were before the construction of said works and facilities.

300:35-11-10. GRDA sole judge

GRDA shall be the sole judge as to whether or not structures are constructed and maintained in accordance with these Rules and Regulations, or kept and operated in a good and safe condition.

300:35-11-11. Expiration of permit

(a) The construction of docks, breakwaters, buoys, railways, tram systems, and retaining walls, or approved modifications to same, must be completed within seven (7) years from the date the permit or modification approval is issued unless the permit specifically provides otherwise.

(b) If the permit expires, the permit is null and void.

300:35-11-12. Dock modification prohibited

Any person, firm, corporation, business or other entity must obtain permission from GRDA prior to making any modification, change, addition or improvement to an existing dock. If a dock will be reconfigured, modified, or expanded from the plans and specifications originally submitted for the construction of the dock, such change must be approved in advance by GRDA. Approval from the Federal Energy Regulatory Commission (FERC) may also be required. This rule applies to both private docks and commercial docks.

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 13. PERMITS FOR DIKES, EXCAVATIONS, DREDGINGS EROSION CONTROL
DEVICES, AND SHORELINE STABILIZATION

Current through 6/15/2009

300:35-13-1. Permit required

(a) The contour, elevation or surface of any of GRDA's lands or the reservoir bed shall not be changed in any manner whatsoever by the construction of dams, dikes, jetties, channels, canals or landings until and unless a permit has been issued by GRDA.

(b) No person, firm, partnership, corporation or other entity may excavate, dredge, stabilize or make any improvement or change upon GRDA land or waters until a permit shall have been issued by GRDA. Approval from the Federal Energy Regulatory Commission (FERC), the U.S. Army Corps of Engineers (Corps), and other state and local agencies may also be required. All such activities shall be performed in strict accordance with the plans and specifications approved by GRDA (and, if required, by FERC and the Corps). An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

300:35-13-2. Erosion control devices

(a) Erosion control devices. These devices may be permitted to protect the existing shoreline. These types of structures must not be for the purpose of landscaping or beautifying the area with little erosion control value. In some cases, permission may also be required from the U.S. Army Corps of Engineers. An application for a permit for an erosion control device is available at GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

(b) During construction activities, GRDA shall require that appropriate erosion and sediment control measures be utilized to prevent pollution of GRDA waters.

(c) All material which accumulates behind sediment control structures must be removed from GRDA land and placed at an upland site above the applicable flowage easement.

(d) Disturbed sites must be promptly stabilized with seeding, vegetative planting, erosion control netting, and/or mulch material.

(e) Vegetation removed for erosion control project must be replaced with native species of vegetation.

300:35-13-3. Excavation and dredging

(a) All excavation and dredging activities on GRDA-owned property require a permit from GRDA. An application for such permit may be obtained from the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com. The U.S. Army Corps of Engineers may also require a permit for excavation and dredging activities. Additionally, the Federal Energy Regulatory Commission must approve all dredging activities on GRDA waters requiring the removal of more than 2,000 cubic yards of material. A wetland delineation study must accompany every application and the study must be conducted by a GRDA approved wetland delineation specialist. These approvals and permits must be obtained prior to commencing any dredging or excavation activity.

(b) Excavation of individual boat channels shall be approved only when GRDA determines there is no other practicable alternative to achieving sufficient navigable water depth and the action would not substantially impact sensitive resources.

- (1) No more than two thousand (2,000) cubic yards of material shall be removed for any individual boat channel.
- (2) The length, width, and depth of approved boat channels shall not exceed the dimensions necessary to achieve six (6) foot water depths for navigation of the vessel at the minimum projected water elevation.
- (3) Each side of the channel shall have a slope ratio of at least 3:1.
- (4) Only one (1) boat channel or harbor may be considered for each abutting property owner.
- (5) The grade of the channel must allow drainage of water during reservoir drawdown periods.
- (6) Spoil material from channel excavations must be placed in accordance with any applicable local, state, and federal regulations at an upland site above the applicable flood plain.
 - (A) Dredging for new or previously authorized areas shall not occur during the months of April, May, June and July to avoid potential impact to fish spawning areas.
 - (B) Excavation within vegetated wetlands is not authorized.

300:35-13-4. Shoreline stabilization

(a) GRDA may issue permits allowing adjacent residential landowners to stabilize eroding shorelines on GRDA-owned residential access shoreland. GRDA will determine if shoreline erosion is sufficient to approve the proposed stabilization treatment. No shoreline stabilization activities may be conducted until a permit from GRDA is issued. An application for a permit may be obtained from the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

(b) Biostabilization of eroded shorelines.

- (1) Moderate contouring of the bank may be allowed to provide conditions suitable for planting of vegetation.
- (2) Tightly bound bundles of coconut fiber, logs, or other natural materials may be placed at the base of the eroded site to deflect waves.
- (3) Willow stakes and bundles and live cuttings of suitable native plant materials may be planted along the surface of the eroded area.
- (4) Native vegetation may be planted within the shoreline management zone to help minimize further erosion.
- (5) Riprap may be allowed along the base of the eroded area to prevent further undercutting of the bank.

(c) Use of gabions and riprap to stabilize eroded shorelines.

- (1) The riprap material must be quarry-run stone, natural stone, or other material approved by GRDA.
- (2) Rubber tires, concrete rubble, or other debris salvaged from construction sites shall not be used to stabilize shorelines.
- (3) Gabions (rock wrapped with wire mesh) that are commercially manufactured for erosion control may be used.
- (4) Riprap material must be placed so as to follow the existing contour of the bank.
- (5) Site preparation must be limited to the work necessary to obtain adequate slope and stability of the riprap material.

(d) Use of retaining walls for shoreline stabilization.

- (1) Retaining walls shall be allowed only where the erosion process is severe and GRDA determines that a retaining wall is the most effective erosion control option or where the proposed wall would connect to an existing GRDA-approved wall on the lot or to an adjacent owner's GRDA-approved wall.
- (2) GRDA shall inspect the site of the proposed construction and consider whether the planting of vegetation or the use of riprap would be adequate to control erosion.
- (3) GRDA shall determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.
- (4) The retaining wall must be constructed of stone, concrete blocks, poured concrete, gabions, or other materials acceptable to GRDA. Railroad ties, rubber tires, broken concrete (unless determined by GRDA to be of adequate size and integrity), brick, creosote timbers, and asphalt are not allowed.
- (5) Reclamation of GRDA land that has been lost to erosion is not allowed.

300:35-13-5. Penalty

Any person, firm, partnership, corporation, or other entity which violates this section, after notice and an opportunity to be heard in accordance with Subchapter 21 herein, shall be required to pay all costs related to the repair, restoration and reclamation of GRDA lands and waters associated with the violation.

300:35-13-6. Expiration of permit

- (a) Any permit issued pursuant to Subchapter 13 of these rules must be completed within seven (7) years from the date the permit or modification approval is issued unless the permit specifically provides otherwise.
- (b) If the permit expires, the permit is null and void.

**OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES**

SUBCHAPTER 15. COMMERCIAL USE OF THE LAKES AND LANDS OF GRDA

Current through 6/15/2009

300:35-15-1. Definition

The keeping or operation of one (1) or more vessels, surfboards, aquaplanes, skis, personal watercraft or like devices, docks, landings, anchorages, marine railways, dry docks or any concession, for pecuniary profit or gain on the water of the lakes or upon the property of GRDA, the carriage of any person, or persons, or of any goods, wares, merchandising or other freight, for a valuable consideration, whether directly or indirectly flowing to the owner, charterer, operator, agent or any other person, shall be deemed commercial use of the waters and lands of GRDA and will be allowed only after a permit has been issued. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

300:35-15-2. Dock installer's permit

(a) Any person, firm, partnership, corporation, or any other entity operating for pecuniary gain or profit or any business that, directly or indirectly, is engaged in the building and placing, or the demolition and removal, of piers, wharves, landings, anchorages, floating boat houses, docks, barges or other floating structures of a stationary or semi-stationary nature upon the waters of GRDA shall obtain an annual permit. Such person or entity shall neither place nor demolish or remove a pier, wharf, landing, anchorage, floating boat house, dock, barge or other floating structure of a stationary or semi-stationary nature upon the waters of GRDA until a Dock Installer's permit has been issued. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

(b) No dock installer shall build and install a pier, wharf, landing, anchorage, floating boat house, dock, barge or other floating structure of a stationary or semi-stationary nature upon the waters of GRDA until such time as the application process found in Subchapter 11 herein has commenced.

(c) At the time the dock is installed, the dock installer shall post a permanent sign visible on the dock. The sign shall include the name of the dock installer, the dock installer's phone number and the year the dock was installed. The sign shall measure at least 5" x 5".

(d) A dock installer shall build, construct, place, demolish and remove docks in strict compliance with the plans and specifications approved by GRDA. The docks shall be built with generally-accepted building materials and in accordance with generally-accepted construction practices. All styrofoam, trash and construction materials shall be disposed in an environmentally appropriate fashion and shall not be allowed to remain or float in the waters of GRDA.

300:35-15-3. Penalty for violation of dock installer's permit

Any person, firm or corporation who shall violate any provision of this section shall, upon notice and opportunity to be heard in accordance with Subchapter 21 herein, be subject to having the dock installer's permit revoked for a period of time up to, and including, permanent termination. Other penalties may include, but are not limited to, the assessment of all costs associated with the repair and/or reclamation of GRDA lands and waters.

300:35-15-4. Dredging contractor's permit

(a) Any person, firm or corporation operating for pecuniary gain or profit or any business that, directly or indirectly, is engaged in the performance of dredging activities or operations upon the lands or waters of GRDA shall obtain an annual permit. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at

www.GRDA.com.

(b) A dredging contractor shall not perform any activities upon the lands or waters of GRDA until a Dredging Contractor's permit has been issued. Any such structure shall be constructed in accordance with GRDA requirements and in strict compliance with the application and terms and conditions of the permit.

300:35-15-5. Penalty for violation of dredging contractor's permit

Any person, firm or corporation who shall violate any provision of this section shall, upon notice and opportunity to be heard in accordance with Subchapter 21 herein, be subject to having the dredging contractor's permit revoked for a period of time up to, and including, permanent termination. Other penalties may include, but are not limited to, the assessment of all costs associated with the repair and/or reclamation of GRDA lands and waters.

300:35-15-6. Commercial boat operators permit

(a) Any person, firm or corporation operating for pecuniary gain or profit or any business that, directly or indirectly, is engaged in the performance of the carriage of any person, or persons, or of any goods, wares, merchandising or other freight, for a valuable consideration, whether directly or indirectly flowing to the owner, charterer, operator, agent or any other person, upon the lands or waters of GRDA shall obtain an annual permit. An application for such permit is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

(b) No vessel, while carrying passengers for hire, shall be operated or navigated except in charge of a person covered by a policy of insurance that clearly covers the scope of duties resulting from such commercial enterprise.

300:35-15-7. Penalty for violation of commercial boat operators permit

Any person, firm or corporation who shall violate any provision of this section shall, upon notice and opportunity to be heard in accordance with Subchapter 21 herein, be subject to having the commercial boat operators permit revoked for a period of time up to, and including, permanent termination.

**OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 17. RAW WATER PERMITS**

Current through 6/15/2009

300:35-17-1. Definition

(a) For the purpose of these Rules and Regulations, the term "domestic and household use" shall mean water that is taken, used and consumed by the permittee in and upon his premises for all usual and ordinary household uses and purposes which shall include sprinkling and watering lawns and gardens of not to exceed three (3) acres. A raw water permit shall be obtained for any appropriation of water requiring a hose or pipe extending into the lake and running off GRDA property. The term "irrigation" shall mean water that is taken, used and consumed by the permittee in and upon the premises covered by the permit for the purpose of irrigating lands, crops and vegetables growing in and upon said lands by ditches, canals, sprinkling systems and such other usual and ordinary means of irrigation.

(b) Water rights granted under these Rules and Regulations shall not be construed as the supplying or furnishing of water for domestic purposes to the public; such permits only grant the permittee the right to take and use the water as provided by these Rules and Regulations.

(c) Commercial use of water requires a written contract with GRDA.

300:35-17-2. Permit required

The taking of and using waters of GRDA shall be allowed only after an annual permit has been issued by the Grand River Dam Authority. An application for such is available at the GRDA Ecosystems Management Office, located at the west end of Pensacola Dam in Langley, Oklahoma, or by mail at P.O. Box 70, Langley, Oklahoma 74350, or by calling 918-782-9594 or on the GRDA website at www.GRDA.com.

300:35-17-3. Irrigation billing

(a) Upon approval of the application for an irrigation permit, the permittee may begin irrigation.

(b) If the permittee has provided facilities for measuring the water taken and used, he shall report the amount of water used to GRDA not later than the first day of November of each calendar year.

(c) In the event the permittee and GRDA agree that the amount of water taken will be fixed and established by agreement between the permittee and GRDA, a determination of the amount of water used will be made not later than the first day of March of that calendar year.

(d) In the event the permittee has used more than one (1) acre foot of water during the calendar year, he shall pay for all water in excess of one (1) acre foot on the basis of the fees above set forth before the end of the calendar year.

(e) If the term of the permit is for more than one (1) year, then the permittee shall pay the required fees and charges on the first day of January for each calendar year covered by said permit.

300:35-17-4. Location of diversion

The granting of such permit to take water from Grand Lake or Lake Hudson shall authorize the permittee to locate upon the lands of GRDA the facilities necessary to take such water covered by the permit; provided, the location and manner of diversion is first approved by GRDA; however, a permit for the use of water from Fort Gibson Lake shall give the permittee no permission or right to

take or use any lands for any purpose whatsoever. (The lake bed and shorelands of Fort Gibson Lake are owned by the United States of America and are under the jurisdiction and control of the United States Army Engineers, District Office, Tulsa, Oklahoma.)

300:35-17-5. Construction and maintenance

The permittee, upon being granted a permit, shall construct and maintain all taking and diversion facilities according to plans and specifications and in a proper and safe manner that will prevent waste and loss of water and will not pollute or contaminate the lake water. All such facilities shall be subject to inspection by GRDA.

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 19. RIGHTS OF ABUTTING LANDOWNERS

Current through 6/15/2009

300:35-19-1. Abutting landowner's rights

(a) No permit, private or commercial, shall issue for any of the facilities described in these Rules and Regulations which would deprive the owner of land adjacent to the shoreland or lakefront or abutting thereon of any anchorage, wharf, dock, boat dock, houseboat and landing privileges.

(b) GRDA may designate areas closed to such use where, in its opinion, such use would interfere with the health or safety of the public or with the proper conduct of GRDA's business.

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 21. ADMINISTRATION OF RULES AND HEARINGS

Current through 6/15/2009

300:35-21-1. General manager duties

The General Manager of the Grand River Dam Authority is authorized to administer these Rules and Regulations. The General Manager, or the General Manager's designee, shall issue all permits and licenses provided for herein.

300:35-21-2. GRDA Board of Directors duties

The Board of Directors of the Grand River Dam Authority retains the right to authorize and issue any and all permits and licenses not specifically provided for in these Rules and Regulations. No fees, charges or any of these Rules and Regulations shall be changed in any manner without the approval of the Board of Directors.

300:35-21-3. Hearings for violation of rules

(a) The general procedures for hearings established by this Subchapter shall apply to proceedings conducted by GRDA for such purposes as suspending or revoking permits, enforcement matters, and assessing costs.

(b) Hearings may be initiated by GRDA staff by issuance of a Notice of Violation or by filing a Petition with the General Manager's Executive Secretary.

(c) The Notice of Violation or Petition shall inform the Respondent of the matter at issue and, if applicable, the alleged violation. Each Notice of Violation or Petition shall name the Respondent(s) and provide a brief statement of the facts and the relief requested. The Notice of Violation or Petition shall be signed by a GRDA staff member.

(d) The Notice of Violation or Petition shall specify that the Respondent may file a response, how and where the response may be filed, the number of days or a date certain within which to file the response, state any scheduled hearing date, place and time or include notice of the opportunity to request an administrative hearing, and shall be served on the named Respondent.

300:35-21-4. Hearing officer

(a) The General Manager, or his designee, shall preside at any hearing. The General Manager may contract with an individual that is not employed by GRDA to preside at any hearing. The functions of the hearing officer shall commence upon his/her designation and terminate upon the certification of the record to the Board of Directors. The hearing officer shall have the duty to conduct a fair hearing, to take all necessary action to avoid delay, and to maintain order. The hearing officer's authority shall include, but not be limited to:

- (1) Arrange and change the date, time and place of hearings and prehearing conferences and issue notice thereof;
- (2) Hold conferences to settle, simplify or determine the issues in a hearing, or to consider other matters that may aid in the expeditious disposition of the hearing;
- (3) Require parties to state their position in writing with respect to the various issues in the hearing and to exchange such statements with all other parties;
- (4) Administer oaths and affirmations;

- (5) Examine witnesses and direct witnesses to testify;
- (6) Receive, rule on, admit, exclude or limit evidence;
- (7) Rule on pending motions and procedural items.

300:35-21-5. Report and record

As soon as practicable after the time for the parties to file proposed findings of fact and conclusions of law has expired, the hearing officer shall prepare a report containing the following:

- (1) Findings of fact and conclusions of law with the reasons therefore.
- (2) Recommendation to the GRDA Board of Directors.

300:35-21-6. Final order

(a) As soon as practicable after the hearing officer has sent his recommendation to the GRDA Board of Directors as provided in 300:35-21-5, the Board of Directors shall adopt, amend, or reject any findings or conclusions of the hearing officer, or may remand the proceeding for additional argument or the introduction of additional evidence at a hearing held for that purpose.

(b) At the conclusion of the proceedings and review of the record by the Board of Directors, the Board of Directors shall issue a final order reflecting the findings of fact, conclusions of law, and specifying the action to be taken.

300:35-21-7. Administrative appeal

An appeal from the Board of Director's Final Order shall be made to the Craig County District Court of Oklahoma.

300:35-21-8. Noncompliance, violations and penalties

Any person, firm or corporation that fails to comply with, or violates any Rule promulgated by GRDA shall, after notice and an opportunity for hearing as provided for herein, be required to reimburse GRDA for any direct cost and overhead incurred as a result of such failure to comply or violation. Such costs may include, but are not limited to, the costs associated with the repair, restoration and reclamation of the lands and waters of GRDA. Additionally, GRDA may cancel any permit or license which has been issued in connection with said boat, structure or facility and may remove or cause it to be removed from GRDA's lands and waters.

**OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 23. FOUR-WHEEL VEHICLES, OFF-ROAD VEHICLES AND ALL TERRAIN
VEHICLES**

Current through 6/15/2009

300:35-23-1. Designated areas

In the interest of public safety, there shall be no four-wheel vehicles, off-road vehicles or all terrain vehicles on GRDA lands except in designated areas.

300:35-23-2. Passengers prohibited

No passengers are allowed on three (3) wheelers, four (4) wheelers, or motorcycles.

300:35-23-3. Low gear required

Low gear only except on trails posted at speed limits in excess of five (5) MPH.

300:35-23-4. Racing prohibited

No racing on GRDA property is allowed except as other permitted by a sanctioned event permit.

300:35-23-5. Lights required

All vehicles, including motorcycles, must be equipped with working front and rear lights.

300:35-23-6. Roll bar and seat belt requirements

Dune buggies and 4x4 vehicles must have a roll bar sufficient to support the weight of the vehicle and must have a seat belt for each passenger.

300:35-23-7. No liability

GRDA shall not be liable and hereby disclaims any responsibility for any and all injuries and accidents, up to and including death, which may occur as a result of participating in off-road activities. Each driver and passenger rides at his/her own risk and assumes all risks of the activity.

30:35-23-8. Alcoholic beverages prohibited

Alcoholic beverages, including low point beer, are prohibited from areas in which off-road activities occur.

300:35-23-9. Signage

Drivers shall obey all signs posted on GRDA land including areas that are off limits and speed designations.

300:35-23-10. Penalty

(a) GRDA law enforcement personnel may verbally order any person that is violating these rules to immediately exit the lands of GRDA.

(b) Additionally, any person, after notice and opportunity to be heard in accordance with Subchapter 21 herein, may be banned from the lands of GRDA for a period of time up to, and including, ninety (90) days.

OKLAHOMA ADMINISTRATIVE CODE
TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 27. VEGETATION MANAGEMENT PLAN

Current through 6/15/2009

300:35-27-1. Scope and intent

Shoreline vegetation protects and preserves a healthy vegetative buffer along the shoreline to maintain and enhance the natural and aesthetic resources of the GRDA lakes. Vegetation can help stabilize the shoreline, prevent erosion, and protect water quality. A natural vegetation buffer improves water quality by filtering and trapping organics and chemical pollutants. A vegetative buffer can enhance the natural appearance of the shoreline. These rules provide the objectives for maintaining GRDA Project Land.

300:35-27-2. Applicability

(a) This subchapter governs vegetation management activity on GRDA Project Land only, and is not applicable on land not owned by GRDA or GRDA owned land that is not Project Land. "Project Land" means the land and other natural resources owned by GRDA that fall within the project boundary identified in the FERC licenses for the Pensacola Project, the Markham Ferry Project, and the W.R. Holway Project.

(b) Except as otherwise provided for in these rules, no person may engage in any vegetation management activity on GRDA Project Land without first obtaining a permit from GRDA. "Vegetation Management Activity" means any activity that results in or is intended to result in the alteration of the existing physical landscape of Project Land. It includes the trimming, cutting, pruning, mowing, planting or removal of any tree, shrub or other vegetation.

(c) Floating debris, driftwood, downed limbs/branches, litter, and trash may be removed from GRDA Project Land at any time and does not require GRDA approval, provided the method of removal complies with these rules.

(d) This subchapter does not apply to utility providers possessing an easement on Project Land. "Utility providers" includes, but is not limited to, public service companies, municipal utilities, electric companies and cooperatives, telecommunication companies, and rural water districts.

300:35-27-3. Permits

(a) Individuals or entities wishing to engage in a Vegetation Management Activity are required to apply for and obtain a permit from the GRDA Office of Ecosystems Management before conducting any such activities.

(b) In order to be eligible to apply for a permit, an individual or entity must be the owner of the land adjacent to the GRDA land for which the permit is sought. If an applicant is not the adjacent landowner, the landowner must consent to the application.

(c) GRDA will consider applications to allow the removal of trees, shrubs, and vegetation for certain conditions and purposes including:

- (1) Hazardous trees which pose substantial risk to the public, adjacent property, or properly permitted structures on Project Land.
- (2) Trees, shrubs, and vegetation which are dead, dying, or diseased.
- (3) Trees, shrubs, and vegetation considered to be an invasive or noxious species by the Office of Ecosystems Management.
- (4) Trees, shrubs, and vegetation which may contribute to unsafe conditions by creating visibility problems (sight line) near waterways, roadways, trails, paths, or other access points.

(5) Trees that are crowded from natural competition or that were overplanted may be selectively removed to maintain spacing for optimal tree growth and function.

(6) Trees, shrubs, and vegetation may be selectively removed to create and maintain an access corridor between an adjacent landowner's property and the shoreline. Corridors must consist of natural materials such as native grass, wood chips, or gravel/crushed rock. Placement of such must not involve earth moving or soil disturbance and must minimize ground disturbance and vegetation removal.

(7) Trees, shrubs, and vegetation may be selectively removed when necessary to facilitate another permitted use of Project Land.

(8) Trees, shrubs, and vegetation may be selectively removed for the creation and/or maintenance of a manicured lawn or for general landscaping purposes.

(d) GRDA will consider applications to allow the pruning or trimming of trees, shrubs, and vegetation for certain conditions and purposes including:

(1) Hazardous sections which pose substantial risk to the public, adjacent property, or properly permitted structures on Project Land.

(2) Dead, dying, or diseased sections to improve appearance and health.

(3) Pruning of trees for crown cleaning, crown thinning, and crown restoration.

(4) Pruning of trees, shrubs and vegetation to enhance the view of the lake.

(5) Pruning or trimming of trees, shrubs and vegetation for the creation and/or maintenance of a manicured lawn or for general landscaping purposes.

(e) GRDA will consider applications to allow for other Vegetation Management Activities including:

(1) Landscape plantings.

(2) Removal or pruning for public utility easements.

(3) Planting, removal, or pruning for shoreline stabilization purposes.

(f) In determining whether to grant a permit, the following will be considered and weighed as appropriate:

(1) Current permitted uses in the surrounding area.

(2) The aesthetic and biological impacts of pruning or removal on the vegetation.

(3) The potential for replacement with more desirable vegetation.

(4) The potential impacts on the aesthetic quality of the surrounding area, with consideration given to the views from the land and from the water.

(5) Potential environmental impacts on soils, shoreline/slope stability, water quality, and wildlife habitat.

(6) Special consideration for unique varieties, vegetation of great age, rare vegetation, or vegetation of horticultural or historical significance.

(7) Special consideration for native vegetation in undeveloped landscapes.

(g) Permit applications shall be subject to the following actions:

(1) Approved as submitted.

(2) Approved with modifications/conditions. Examples of modifications or conditions that may be placed on a permit include limiting the allowed activities, requiring activities be performed in a specific manner to minimize impact, and requiring mitigation or other enhancement measures.

(3) Rejected.

(h) Permits shall be valid for one year from the date of issuance and all Vegetation Management Activity authorized must be completed within that period.

(i) No permit shall be required for a utility provider possessing an easement on Project Land to perform Vegetation Management Activities necessary to exercise its rights pursuant to that easement.

300:35-27-4. Vegetation management

(a) The following acts are prohibited on GRDA Project Land:

(1) Herbicides shall not be used for control/removal of vegetation.

(2) Pesticides shall not be applied on GRDA land.

(3) The sale of any tree or other vegetation that is removed or cut is prohibited.

(4) Fertilizers shall not be applied on GRDA land.

(5) Vegetable gardens are prohibited on GRDA land.

(6) The introduction or planting of invasive plant species is prohibited on GRDA Project Lands.

(7) Any Vegetation Management Activity that results in significant soil disturbance is prohibited.

(b) Machinery or equipment may be used to accomplish a permitted Vegetation Management Activity, subject to the following:

(1) Unless prohibited by GRDA, the following may be used in the performance of permitted activities:

(A) Hand-held tools including chainsaws and brush cutters.

(B) Mechanized equipment with a maximum power output not greater than 30 horsepower (hp), provided the use does not result in the unauthorized movement of soil, rocks, or existing live vegetation.

(2) The use of machinery with a maximum power output greater than 30 hp may be allowed with prior express approval from GRDA.

300:35-27-5. Waivers

Since every possible situation cannot be anticipated, GRDA reserves the absolute discretion to make appropriate exceptions or modifications to the Vegetation Management Plan and the requirements of same. GRDA may impose additional requirements, including the requirements that the permit holder provide a survey to verify the permitted activity was completed in conformance with GRDA requirements.

300:35-27-6. FERC approval

In accordance with its licenses with the Federal Energy Regulatory Commission (FERC), GRDA may only permit incidental vegetation disturbance and removal. Therefore, in certain instances an application for a permit to remove vegetation must be approved by both GRDA and FERC. GRDA reserves the right to request FERC to approve any application for a permit.

300:35-27-7. Penalties

After notice and an opportunity to be heard in according with Subchapter 21 herein, a permit issued pursuant to these rules may be suspended or revoked by GRDA upon a finding that the permit holder has violated any rule provided for herein. Additionally, the holder of the permit may be assessed costs which may include expenses necessary for the reclamation, restoration, and/or clean-up of GRDA land and waters.

300:35-27-8. General permits for natural disasters and other emergencies

In the event a natural disaster or other emergency situation causes significant vegetation damage or debris accumulation within the project boundary to the extent that site specific permitting is impractical or would result in undue delay, the General Manager may issue a general vegetation permit governing all management activities within an affected area in lieu of requiring site specific permits. A general permit shall clearly identify the scope of allowed activities, the areas in which the permit is applicable, and the period of time for which the permit is valid.

Commercial Project Permitting Process



Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

GRDA

Dear Applicant:

A permit is required to comply with local, state, federal and the Grand River Dam Authority's (GRDA) requirements for authorizing activities within the project boundaries of GRDA's reservoirs. Each reservoir has a project boundary that is determined by a legal metes and bound property description.

To initiate the approval process, the applicant must **first** fully complete and forward the entire commercial application with detailed information for GRDA staff to review. (Environmental Assessment (if requested), application processing fee, and any documentation that would assist GRDA in their evaluation). GRDA staff will review the application and may request additional information. Also a member of GRDA's Department of Ecosystems Management will make an on-site inspection. If the application is approved by GRDA staff it will be submitted to the GRDA Board of Directors for approval and if approved by the Board, GRDA will submit the application to the Federal Energy Regulation Commission (FERC) for its review process and possible approval. **All commercial operations must be approved by FERC prior to the beginning of any construction.**

Should you have questions or need assistance in the preparation of the application, please write to the undersigned at Grand River Dam Authority, Office of Ecosystems Management, P O Box 70, Langley, OK 74350. You may also call (918) 782-3382.



Dr. Darrell Townsend, II Ph.D.
Superintendent of Ecological Operations

ADMINISTRATION
PO Box 409
Vinita OK 74301
918-256-5545
918-256-5289 Fax

**COAL-FIRED
COMPLEX**
PO Box 609
Chouteau OK 74337
918-824-1074
918-825-7791 Fax

**CUSHING FIELD
OFFICE**
PO Box 329
Cushing OK 74023
918-225-1507

**ENERGY CONTROL
CENTER**
PO Box 772
Locust Grove OK 74352
918-479-5249
918-825-1935 Fax

ENVIRONMENTAL
PO Box 220
Chouteau OK 74337
918-824-1034
918-824-2049 Fax

SAFETY
PO Box 10
Chouteau OK 74337
918-824-1034
918-824-2049 Fax

LAKE PATROL
PO Box 70
Langley OK 74350
918-782-9594
918-782-4723 Fax

PENSACOLA DAM
PO Box 70
Langley OK 74350
918-782-3382 also Fax

**SALINA PUMPED
STORAGE PROJECT**
PO Box 609
Salina OK 74365
918-434-5920 also Fax

**TRANSMISSION &
ENGINEERING**
PO Box 1128
Pryor OK 74362
918-825-0280
918-825-9416 Fax



GRDA Commercial Project Permitting Process *

I. General Overview

As a Federal Energy Regulatory Commission (FERC) licensee, the Grand River Dam Authority (GRDA) operates and manages Grand Lake and Lake Hudson in accordance with the terms of its license agreement and the applicable rules and regulations of FERC. These responsibilities include providing adequate public access and public recreation facilities and protecting important natural, environmental, cultural, and scenic resources. These procedures apply to commercial project applications as defined by GRDA's license agreement with the FERC, which include but are not limited to:

- Applications for construction or modification of facilities designed to accommodate more than ten (10) watercraft at a time. GRDA will aggregate all existing and proposed facilities to determine the total number of watercraft, including personal watercraft, that the proposed facilities may accommodate; and
- Applications for construction or modification of facilities intended to serve non-residential enterprises operated, directly or indirectly, for pecuniary profit or gain; and
- Applications for dredging operations requiring removal of fill materials exceeding the amount of two thousand (2,000) cubic yards; and

To be eligible for a commercial construction or operating permit, the applicant must be the owner of property adjoining GRDA's project boundary or if the Applicant is not the adjoining landowner, Applicant must obtain written approval of the commercial project from the adjoining landowner. An Applicant includes all relatives, associates, or affiliated parties of the Applicant. This permit process may require the applicant to have an Environmental Assessment (EA) performed by an environmental consultant identifying impacts of the proposed facility or activity.

II. GRDA Property Rights

Associated with the formation of Grand Lake and Lake Hudson, GRDA acquired shoreline properties and land underlying the reservoirs. Also, in most locations, flowage easements are possessed by either GRDA or the Army Corps of Engineers which control any use that might interfere with reservoir and flood storage operations. Real property ownership records shall be consulted to determine if a proposed commercial project is allowed before initiating the approval process.

III. GRDA Water Rights

GRDA has exclusive rights to the waters of Grand Lake and Lake Hudson for hydroelectric purposes. The use and displacement of GRDA waters must be authorized by GRDA and in some cases by FERC.

IV. Criteria Used in Evaluating Proposed Commercial Project Application

In reviewing new commercial project applications, GRDA shall consider the statutory mandates contained in 82 O.S. §861 et seq., as amended, together with:

- Characteristics, zoning and prevailing permitted uses within a half-mile radius of the proposed activity;
- Shoreline topography and geometry;
- Safety, navigation and flood control requirements;
- Environmental impacts;
- Potential economic development and tourism benefits;
- Recreational use impacts;
- Any other criteria which may impact the proposed project.

V. Commercial Permitting Process

Upon completion of the commercial permitting process and any required prior FERC notice or approval, GRDA may issue a construction permit for the proposed facility. Following construction and after a final determination that the new facility meets all standards and requirements and a final inspection of the new facility, GRDA may issue a commercial operations permit. Commercial operating permits must be renewed annually, and may be terminated by GRDA in accordance with its rules and regulations, the terms of the commercial operating permit, non payment of fees due GRDA or for failure to abide by GRDA procedures and requirements or other applicable state or federal statutes and regulations.

Only written statements, agreements or approvals signed by authorized personnel shall be considered the official statement, agreement or acknowledgement of GRDA.

* GRDA reserves the right to make the final determination concerning the location, maximum distance from the shoreline, buffer zones and size of a facility based on the particular conditions in that location. Boating density, water depths, narrowness of certain coves and/or lay of some lots may cause GRDA to deny construction or placement of facilities or activities in these circumstances.

Permitting Procedure and Requirements

Procedure for Requesting a Commercial Permit

Procedurally, a formal and detailed application to use and occupy Project lands and water for commercial purposes is required to be submitted to GRDA. The proposed facilities, structures and activities should be precisely described and located.

A written proposal must be submitted along with a completely filled out application form. It is important that you provide complete information in the requested format. If incomplete information is provided, processing of your application will be delayed. This information will be used to determine the appropriate form of authorization and to evaluate your proposal. Additional information may be requested after initial review by GRDA. This information should be included with the attached application form.

Any supporting documentation that would assist GRDA and other reviewing authorities in their evaluation should accompany the application. If the proposed use and occupancy is acceptable to GRDA staff, the proposed project will then be submitted to GRDA's Board of Directors for review and action. If approved by GRDA's Board of Directors, the project will be submitted to FERC for approval. All applications for new or major modifications of existing commercial docks require approval from FERC.

Typical Processing Procedure

1. Applicant attends a pre-application meeting with GRDA staff to discuss the proposed project, permits that will be required and application preparation.
2. Applicant submits a complete application with the appropriate application fee.
3. Application is reviewed and an on-site inspection is made by a member of GRDA's Department of Ecosystems Management.
4. More information may be requested with additional review of the application.
5. GRDA determines if the proposed use is consistent with its statutory mandates and approval criteria. If approved by GRDA's Board of Directors, the project will be processed internally by GRDA staff and an application submitted to FERC for approval.
6. If approval is obtained from FERC, a permit for the proposed facility or use may be issued by GRDA which includes any additional requirements or modifications contained in the final order received from FERC.

All Commercial Applications Must Contain the Following:

- A statement consisting of the proposed use of the project property, together with the name and address of the Applicant and contact person for the project. This statement shall include major components of the project, materials to be used and layout or design of the project.
- A detailed description and map showing the location and type of facility. Maps must clearly show the location of GRDA's project boundary and applicable flowage easement lines in relation to the proposed project.
- A copy of a survey prepared by an Oklahoma registered land surveyor of the entire shoreline area within the boundaries of the development which clearly indicates the points of intersection of real property side lines with the project boundary and the location of all existing or planned facilities which penetrate the GRDA project boundary including but not limited to shoreline stabilization for amenities areas, boat slips, storm water outfalls, rip rap, utility line crossings and excavation areas.
- A certificate from an insurance company licensed to do business in Oklahoma, showing evidence of a Comprehensive General Liability Policy with \$100,000 combined single limits. The term of such insurance shall be coterminous with the permit.
- A copy of all correspondence between the Applicant and any federal, state, regional or local agencies, including any required permit or other approvals which have been obtained from these agencies regarding this project.
- A detailed written description and technical drawings of the facilities to be constructed certified by a registered professional engineer including a discussion of the proposed action.
- A description of the project's environmental impacts including affects on common fish and wildlife species, threatened and endangered species, common vegetation and trees, cultural resources, water quality and existing recreation facilities and uses.

- A statement of how the proposed project is not inconsistent with approved recreation, dredging, cultural resources and wildlife protection plans and statutory mandates or project management requirements.
- A description of any adverse environmental impacts which cannot be avoided and how such adverse effects are proposed to be minimized.
- A statement as to why the proposed project is in the public interest.
- A description of the measures to be used to ensure boating safety in the vicinity of the project area during and after construction.
- A description of the existing recreational uses and facilities at and near the project area.

Alterations, Additions or Relocation of Existing Facilities

Relocation of existing structures, alterations, or modifications that would increase the footprint of in-place facilities and structures require the approval of GRDA and may require FERC approval. New applications must be submitted for modifications of existing commercial facilities. Technical drawings of the facility as it currently exists and as proposed shall be submitted.

Inspections

All facilities and activities are subject to periodic inspection by GRDA personnel or other authorized personnel during construction and operation to ensure compliance with permit conditions and construction codes and regulations. No deviations or changes are allowed from the approved project plans without prior written approval from GRDA.

Enforcement

In the event the permittee fails to comply with any of the conditions and requirements of the permit, GRDA may revoke the subject permit as well as all rights and privileges, both current and future, associated with said permit. In the event GRDA revokes any permit and permittee fails to remove said facilities, GRDA may remove said facilities at permittee's expense. In the event litigation is required by GRDA to enforce any of its rights related to this process, permittee shall be responsible to GRDA for GRDA's legal fees and all expenses incurred by GRDA in connection with its enforcement of said rights.

GRDA Fees

A non-refundable processing fee is required for all commercial applications.

Application Processing Fee is due at the time the application is submitted and is based upon the number of slips contained in the application with each increment of 10 slips being charged an additional \$2,500.00. For example:

Number of Slips	Amount
0-10	\$ 2,500.00
11-20.....	\$ 5,000.00
21-30.....	\$ 7,500.00
31-40	\$ 10,000.00
41-50.....	\$ 12,500.00
51-60	\$ 15,000.00
61-70.....	\$ 17,500.00
71-80	\$ 20,000.00
81-90.....	\$ 22,500.00
91-100.....	\$ 25,000.00

GRDA reserves the right to adjust said fees at a later date.

Information Outline for Commercial Applications

I. General description of entire development

- A. Location
- B. History of location
- C. Services to be offered
- D. Need for services and facilities
- E. Proximity to similar services
- F. Location and description of surrounding developments including adjacent real property zoning
- G. Environmental impacts and proposed mitigation

II. Detailed description of proposed facilities

- A. Design, dimensions of each proposed facility
- B. Use of each facility
- C. Location of all facilities
- D. Shoreline attachment
- E. Electrical and plumbing systems
- F. Public safety devices

III. Maps and drawings

- A. Vicinity or area map
- B. Site plan showing location and size of proposed development in relationship to shoreline, other structures and adjoining developments (to scale)
- C. Design, dimensions or type of structures to be constructed and installed prepared by Oklahoma professional engineer.
- D. Survey of location by Oklahoma professional registered surveyor including proposed structures, boundary lines and flowage easement lines.
- E. Design, dimensions or type of structures currently existing by an Oklahoman registered professional engineer.

IV. Permits, licenses, approvals or certifications required;

- A. Army Corps of Engineers
- B. County Floodplain Administrator
- C. Oklahoma Water Resources Board
- D. Oklahoma Department of Environmental Quality
- E. Oklahoma Corporation Commission
- F. Oklahoma State Fire Marshal
- G. FERC
- H. GRDA
- I. Other agencies as applicable

V. Environmental Assessment (EA)

An EA may be required by GRDA. If said EA is requested by GRDA, it must be prepared by an entity listed on GRDA's Environmental & Wetlands Consultants list. An applicant may submit a request for GRDA to add a company to the list. EA's are to be prepared in conformance with the guidelines and format contained in FERC's Handbook for Preparing Environmental Assessments dated March 14, 2001, including updates and revisions which may be found at: www.ferc.gov/industries/hydro-power/enviro/eaguide.pdf.

A list of environmental consultants is available from the Department of Ecosystems Management.

VI. Documentation of notice to the public and informational meeting

Applicant is responsible for complying with GRDA public notice requirements to area property owners.

VII. Documentation of agency consultation

Applicant is responsible for consultation with all appropriate state, federal and county agencies including, the following but not limited to:

- A.** U. S. Army Corps of Engineers, Tulsa District
- B.** U. S. Fish and Wildlife Services
- C.** Oklahoma Department of Wildlife Conservation
- D.** Oklahoma Department of Environmental Quality
- E.** Oklahoma Water Resources Board
- F.** Oklahoma Historical Society
- G.** Oklahoma Archeological Survey
- H.** County Department of Environmental Quality
- I.** Bureau of Indian Affairs
- J.** Oklahoma Native American Tribes
- K.** County Floodplain Administrators
- L.** Oklahoma Corporation Commission
- M.** Oklahoma State Fire Marshal
- N.** GRDA
- O.** FERC

Engineered Drawings - Minimum Requirements

(Subject to Revision Without Notice)

General

Drawings are required to accurately depict a facility or activity. These drawings may include, but are not limited to, site location, plan, floor plan and cross section or profile drawings. Detailed drawings of all plumbing, sewer, waste disposal and electrical systems are also required. An area map is needed to show the general location of the proposed facility. All drawings shall be to scale.

Each page shall have a title block. The title block shall identify the proposed activity or use and shall include the reservoir, county, name of Applicant, number of the sheet and total number sheets in the drawing set, and the date the drawing was prepared and by whom.

Site Location Drawings

The site location drawing shall show the proposed location of the facility or activity as it relates to the applicant's property. Sufficient details shall be provided to simplify location of the site from both the reservoir and from land. The drawing shall show:

1. A scale of no less than 1" = 40'.
2. Location of the facility in relation to adjacent property lines, GRDA taking lines, flowage easements, 750' mean sea level and the distance facility encroaches into the reservoir from the shoreline
3. Address of proposed project.
4. North directional arrow.
5. Anchorage and walkway attachment points.

Profile

Cross section or profile views are scaled drawings that show the side, front, and rear of the proposed facility. If section views are shown, they represent the proposed structure as it would appear if cut internally for display. All drawings should clearly show:

1. A scale of no less than 1/4" = 1'.
2. Principal design & dimensions of the facility.
3. Water depth at various locations surrounding the proposed facility.
4. Cross section of any proposed excavation or dredge area.
5. Detailed description of docks (i.e., color, covered or uncovered, enclosed)

Plan View

Plan views show the overhead view of the proposed facility. Plan views shall clearly show:

1. A scale of no less than 1/4" = 1'.
2. Principal design & dimensions of the facility, including length & width of each dock, how many slips in each dock. Dimensions of any and all slips used to accommodate watercraft, including personal watercraft lifts and drive-on docking systems. Length and width of walkways.
3. Name of reservoir where proposed facility is to be located.
4. Existing shoreline.
5. Average water depths surrounding the proposed facility.
6. North directional arrow.
7. If dredge material is involved, the type of material, number of cubic yards to be dredged, method of handling and the location of fill and spoil. Disposal areas must be described.

Floor Plan

Scaled floor plans shall include locations of plumbing and electrical facilities.

Minimum Safety and Construction Standards for Commercial Docks Grand River Dam Authority Lakes

PURPOSE AND PREFACE

These standards of the Grand River Dam Authority apply to all commercial docks on lakes, rivers and tributaries under the control of the Grand River Dam Authority. These standards are adopted pursuant to the authority of the Grand River Dam Authority as provided by law and are intended to provide minimum requirements to protect public safety, access and water quality. The objective for these requirements for commercial facilities and activities is to assist the Applicant in the construction and operation of a safe commercial facility.

Grand River Dam Authority recognizes the utility and recreational benefits of these commercial docks for their owners, but it is also charged with the responsibility to ensure public safety, navigation and water quality of its lakes, rivers and tributaries.

DEFINITIONS

Abandoned Dock: A dock that (1) is adrift; or (2) owner cannot be located within a reasonable amount of time.

Commercial Dock: Docks intended to serve non-residential enterprises operated, directly or indirectly, for pecuniary profit or gain.

Design Elevation: The elevation, measured in feet above mean sea level which is considered the normal elevation of each lake; Grand - 742 feet, Hudson – 619 feet.

Dilapidated Dock: A dock that (1) has any structural members, roofing, decking, flotation or walkways that are not securely attached and could pose an immediate safety or navigation hazard; (2) is submerged; (3) is not floating upright; (4) has deck or floors below water level; (5) is in a state of disrepair or (6) is otherwise not in full compliance with these minimum standards.

Encased Flotation: Expanded polystyrene fully encased by high density, high molecular weight polyethylene with a minimum thickness of .150" on the bottom and .125" on the top.

Expansion: Any increase in the water surface area of a commercial dock.

Existing Commercial Dock: A commercial dock that is permitted on or before the effective date of these standards constructed and located on the water surface of GRDA lakes or waterways.

FERC: Federal Energy Regulatory Commission

GRDA: Grand River Dam Authority

GRDA Lakes: Grand Lake, Hudson Lake, W. R. Holway Lake and all rivers, creeks or other tributaries in the Grand River system under the statutory purview of the Grand River Dam Authority.

Modification: Any change, addition or alteration of a commercial dock; or any change, addition or alteration in the location, configuration, structure or substructure of a commercial dock. A modification does not include routine maintenance and repairs, or repairs required by GRDA to bring a commercial dock that is dilapidated or abandoned into compliance with these standards.

Shoreline: The line at which the water surface comes into contact with the land at any given time. The shoreline will move as water levels change.

Water Surface Area: The area including, but not limited to, the length times the width of the commercial docks floating; and fixed structures with open and covered slips located on or over the water. Walkways are included in water surface area measurements.

STANDARDS

- A.** There shall be a permit for each commercial dock located on the waterways controlled by GRDA. A permit may be obtained only after the submission of an application duly executed, in writing by the applicant, upon a form prescribed and provided by GRDA. Said application shall have attached:
1. Scaled Drawings: Overhead and Profile dimensions drawn to scale (i.e. 1" = 10'). Detailed description of dock (i.e. color, covered or uncovered, enclosed). Your local dock builder can provide these drawings.
 2. Length and width of walkway.
 3. Detailed description of how dock is anchored (i.e. cable, stiff-arms).
 4. Type of flotation. Effective January 2005, all new docks REQUIRE encapsulated foam.
 5. Copy of plat map.
 6. Plot drawing showing placement of dock on water and minimum distances between dock and any other floating structures or markers within 150'. Must include the shortest distance across cove from 750' to 750' (Grand) or 622' to 622' (Hudson) elevation.
 7. Copy of warranty deed. Should be included in abstract or contact County Clerk's office in the residence county.
 8. Driving directions by land and water.
 9. Waiver form (if variance is requested).
 10. Survey must be provided to verify 1) the applicant's property line, and 2) GRDA's property line, if applicant's property is not adjacent to GRDA property. Survey must be completed and signed by and Oklahoma certified licensed surveyor.
 11. If a dock is wired for electricity, the "Check List for Dock Electrical Permit Inspection Form" must be provided and signed by an Oklahoma certified electrician final permit approval.
 12. Upon final approval all permits (payment decal, dock permit number) must be affixed to each dock so that they are easily identified from the water. Failure to comply with this notice will result in GRDA personnel posting your number on your dock at your expense.
 13. Length and width of each dock, number of slips each dock contains and the size of all slips (including personal watercraft lifts and drive on docking systems).
- B.** Upon issuance of said permit, a number will be assigned each commercial dock. These numbers shall be no smaller than three (3) inches high and shall be affixed to the commercial dock as to be easily visible from the water.
- C.** Permittee agrees to promptly pay the annual permit fee as set forth in the Schedule of Fees in the Rules & Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority. A colored dock permit sticker will be returned to permittee. This sticker is to be prominently displayed on dock and indicates that the annual permit fee has been paid.
- D.** A commercial dock must be constructed of such quality material as to withstand lake level changes and exposure to strong wind, fast moving water and severe wave action. Main support frame shall be constructed of no less than two (2) inch steel pipe or two (2) inch square tubing, or other such material having the same tensile strength. Decking and walkways shall be constructed of marine grade material of no less than one and one-fourth (1 ¼) inch thickness. Sheet metal for roofs and walls shall be twenty-six (26) gauge or greater in thickness.
- E.** Effective January 1, 2005:
1. All flotation materials for newly constructed docks and other water-use structures and facilities shall be commercially manufactured for marine use. Flotation materials shall be fabricated so as not to become water logged, crack, peel, and fragment or be subject to loss of beads. Flotation materials shall be resistant to puncture, penetration, damage by animals and fire. Styrofoam flotation must be fully encased in solid polyethylene or similar materials.
 2. Existing flotation material (secured in place prior to December 31, 2004) in compliance with previous rules is authorized until, in GRDA's judgment, more than one third (1/3) of the existing flotation is no longer serviceable, at which time all flotation material shall be replaced with approved flotation upon notification from GRDA.
- F.** Piers, wharves, landings, floating boat houses, docks, breakwaters and/or barges and other floating structures of a stationary or semi-stationary nature, commercial or private, extending into the lands and waters of GRDA, including all attachments, such as stiff-arms, spars, approaches, walkways, gangplanks and/or ramps, will be limited to a total maximum length, perpendicular tot

the shoreline, as hereinafter defined: 125 feet, or one-third of the distance from the nearest opposite shoreline, measured from 750-foot mean sea level elevation to the nearest opposite 750-foot mean sea level elevation of Grand Lake, whichever is less. On Lake Hudson, the elevation shall be 622 feet mean sea level. Physical surveys conducted for the purpose of locating the above structures shall be conducted using mean sea level as opposed to Pensacola datum.

It is the intent of this section that all structures, including docks, extending into the lands and waters of GRDA, and that they be so located, attached and secured as to keep to a minimum that amount of encroachment necessary on the lands and waters of GRDA.

- G.** A commercial dock must be lighted continuously from sunset to sunrise and during periods of low light conditions if the dock: (1) extends beyond 125 feet from the shoreline, or (2) otherwise poses a navigation hazard. The minimum safety lighting allowed under these standards shall clearly define the presence of all structures, including the walkway. The lighting shall be located and configured or shielded so as not to present a hazard to navigation. This standard shall also apply to swim docks and platforms.
- H.** Any commercial dock that has electrical service shall strictly adhere to the regulations set forth in the State of Oklahoma Fire Code for floating structures. At the time of application a certificate of inspection from a state licensed electrician shall be attached before the permit will be issued. The permittee will then, every three (3) years, resubmit a current certificate of inspection to the office of Ecosystems Management. GRDA Electrical Inspection Stickers are to be prominently displayed on docks indicating compliance with this requirement. Construction and operation should be in compliance with all federal, state and local codes, including but not limited to the National Fire Protection Association Code, the National Electric Code, the National Environmental Policy Act, the Oklahoma Department of Environmental Quality, and the Oklahoma Corporation Commission. It is specifically the responsibility of the Applicant to take all appropriate steps to insure that its facilities comply with said federal, state and local codes. It is exclusively and specifically the responsibility of the Applicant to insure that all electrical work is completed by an Oklahoma licensed and bonded electrician.
- I.** Any dock classified "Not Electrically Wired" (Red Sticker) will not have any permanent electrical supply installed without first applying for a classification change as per GRDA's Safety and Construction Standards. There will be no temporary electrical supply (extension cords, etc.) used and left unattended while it is on the dock or dock walkway. Any temporary electrical supply will be an approved UL Listed Supply Cord and be in good condition with all electrical connectors attached and in use. Any temporary electrical supply will use GFCI Receptacles.
- J.** A commercial dock shall be anchored so as not to create a hazard to navigation or block ingress or egress of watercraft. Said cables or stiff arms shall be securely attached to adjacent lands at a point above 750 feet mean sea level on Grand Lake and above 622 feet mean sea level on Hudson Lake. Walkways extending to the shoreline shall also strictly adhere to this rule.
- K.** All floating structures of a stationary or semi-stationary nature, commercial or private, which are used for the housing and/or storage of vessels, shall normally be constructed, maintained, located, attached and secured in the manner provided, and shall be so located, attached and secured to the shoreline, that all boat stalls located in them are perpendicular to said shoreline, so that the opening to said stall, of which there will be only one opening, shall open only to the waterfront side of said structure, and shall not open parallel to the shoreline, or to the shoreline side of said structure. Provided, upon the filing of a written request, GRDA may, for good cause shown, grant an exception to this requirement. Any permit issued shall be revocable if a conflict arises between the permittee and adjacent landowners. To be considered for approval, sufficient room must be present on either end of said dock.

Existing piers, wharves, landings, floating boat houses, docks and/or barges and other floating structures of a stationary or semi-stationary nature, commercial or private, extending in to the lands and waters of GRDA, including all attachments, such as stiff-arms, spars, approaches, walkways, gangplanks and/or ramps, not fully complying with this rule on the effective date of these rules, may continue to be located on the lands and waters of GRDA subject to all other rules, but the same shall not be expanded, enlarged or relocated except in compliance with these rules.

- L.** The Board, upon written application and after hearing subject to the procedural and substantive standards hereinafter set forth may grant waivers to the application of these rules and regulations:
 - 1. Waivers of these rules and regulations may be granted by the Board of Directors of GRDA upon application. In approving waivers of these rules and regulations the Board of Directors shall consider positive and negative impacts to the following:
 - Characteristics, zoning and prevailing permitted uses within a half-mile radius of the proposed activity.
 - Shoreline topography and geometry.
 - Safety, navigation and flood control requirements.

- Environmental impacts.
 - Potential economic development and tourism benefits.
 - Recreational use impacts.
 - Statutory mandates (820.S.861 et seq.)
2. The applicant shall be required to give notice and the Board shall allow public comment, either at a regularly scheduled meeting of the Assets Committee or at formal public hearing, before acting on any request for a waiver of these rules.
 3. Public notice of the waiver request shall be given in accordance with guidelines established by the GRDA staff and shall include:
 - a. Publication in newspapers of general circulation, including the county in which the property is located.
 - b. Mailing of written notice to all owners of property within a 300-foot radius of the exterior boundaries of the subject shoreline property. (Please note: This is the applicant's responsibility. Certified Mail receipts are required as proof of mailing.) GRDA will not post in newspapers or website until receipts are received.
 - c. Posting on GRDA's website for a period of thirty (30) days.
 - d. And such other notice as directed by GRDA staff.

A request for a waiver shall be initiated by the filing of a written application and shall be set for hearing as prescribed by these rules. A waiver, which has not been utilized within three (3) years from the date of the order granting the same shall thereafter be void unless otherwise extended in writing by the GRDA Chief Executive Officer prior to the three year expiration.

- M. The Office of Ecosystems Management reserves the right to authorize representatives to enter the property of the permittee as necessary to make inspections and/or other activities under permit. The facilities and equipment shall be subject to periodic inspections by personnel of GRDA and other regulatory bodies for compliance with all applicable regulations. In addition, permittees may be requested to submit documentation of compliance inspections from applicable federal, state or local regulatory agencies.
- N. No attempt shall be made by any permittee to forbid the use of all public access land and/or water, at/or adjacent to a permitted facility.
- O. The permittee agrees to operate and maintain any permitted facility in a manner so as to provide safety, minimize an adverse impact on fish and wildlife habitat, natural environment or cultural resources values and in a manner so as to minimize the degradation of water quality.
- P. The permittee agrees to save and hold harmless the Grand River Dam Authority, its officers and/or directors from any and all causes of action, suits at law or equity, claims or demands, or from any liability of any nature for, or on account of, any damages to persons or property, including a permitted facility, growing out of the ownership construction, operation or maintenance by the permittee of the permitted facility and/or activities.
- Q. Ownership, construction, operation, use and maintenance of a permitted facility and/or activity are subject to all federal, state and local laws, as well as all rules and regulations now in effect; or those promulgated in the future by the board of directors of the Grand River Dam Authority. Failure to abide by these laws, rules or regulations may be cause for revocation of the permit.
- R. If the permittee fails to comply with applicable laws, rules or regulations or ceases to use, operate or maintain a permitted facility, the Office of Ecosystems Management may revoke the permit and cause the facility to be removed by contract or otherwise and the permittee agrees to pay all costs incurred thereof.
- S. Nothing in these standards shall prevent the GRDA from seeking injunctive relief or any other remedy in law or equity at anytime against any person allegedly violating these standards.
- T. Whenever regulations or restrictions imposed by these standards are either more or less restrictive than regulations imposed by any governmental authority or other entity that might have authority to regulate commercial docks, the regulations, rules or restrictions that are more restrictive or impose higher standards shall govern.
- U. Written approval of all proposed plans concerning fuel storage and dispensing and fire protection must be obtained from appropriate regulatory agencies and submitted with all applications for fuel facilities. GRDA may periodically request, after installation, that all facilities be inspected by the appropriate regulatory agencies for compliance with documentation of compliance to be submitted to GRDA. The storage of flammable or hazardous material is not allowed on any docks with exception of approved permitted fuel supply facilities. The fueling from cans at docks should be discouraged. Fuel facilities should be located separately from other facilities so as to provide room for safe ingress and egress of crafts to be fueled.

GRDA Permit Checklist

Date: _____

GRDA Project Number: _____

Applicant:

(Name)

(Address)

(City)

(State)

(Zip)

(Phone)

Legal Description: Section _____ Township _____ Range _____

County _____ Reservoir _____

Types of Permits Requested:

- Commercial dock permit or breakwater
- Retaining wall permit
- Dredging permit for more than 2,000 cubic yards
- Dredging permit for less than 2,000 cubic yards
- Tree removal permit
- Water use
- Utility Easement
- Railway System
- Boat ramp
- Rip rap
- Dock Installers Permit
- Dredging Contractors Permit
- Work Barge
- Boat or watercraft rental
- Other

Please place a check mark by items applicable to the project:

I. Water or sewage

_____ Potable water _____ Sewage _____ Sewage treatment facility
_____ Septic systems _____ Quantity required

II. Storm water management

_____ Retention ponds _____ Subterranean collection _____ Surface drainage only

III. Dredging, backfill or rip rap

A. _____ Earth disturbance _____ Approximate amount

Grand Lake (elevation)	Lake Hudson (elevation)
_____ Above 757'	_____ Above 650'
_____ Between 757' & 750'	_____ Between 622' & 650'
_____ Below 745	_____ Below 619'

B. _____ Backfill _____ Approximate amount

Grand Lake (elevation)	Lake Hudson (elevation)
_____ Above 757'	_____ Above 650'
_____ Between 757' & 750'	_____ Between 622' & 650'
_____ Below 745'	_____ Below 619'

C. _____ Rip Rap _____ Approximate amount

Grand Lake (elevation)	Lake Hudson (elevation)
_____ Above 757'	_____ Above 650'
_____ Between 757' & 750'	_____ Between 622' & 650'
_____ Below 745'	_____ Below 619'

IV. Submerged structures

_____ Concrete anchors _____ Cable or pipe

V. Tree removal or shoreline clean-up

_____ Tree cutting or brush removal

VI. Retaining wall

Grand Lake (base elevation)

Lake Hudson (base elevation)

_____ Above 757'

_____ Above 650'

_____ Between 757' & 750'

_____ Between 622' & 650'

_____ Below 745'

_____ Below 619'

VII. Floating structures

_____ Restaurant

_____ Restroom facilities

_____ Fuel storage or sales

_____ Ship store

_____ Residential homeowner slips..... Total number: _____

_____ Individually owned slips..... Total number: _____

_____ Rental slips..... Total number: _____

_____ PWC drive on docking systems Total number: _____

_____ Breakwater Size (L x W): _____

_____ Pump out facility (portable)

_____ Pump out facility (permanent)

_____ Charter Craft Total number: _____

_____ Work Barges Total number: _____

(This section for GRDA Completion Only)

Facilities & Permits Required for Project

	Agency	Required	Not required	Date requested	Date received
1.	404 Clean Water Act – COE				
2.	Consent to flowage easement structure – COE or GRDA				
3.	County Floodplain Administrator				
4.	Oklahoma State Fire Marshall				
5.	Oklahoma Corporation Commission				
6.	Federal Energy Regulatory Commission				
7.	Oklahoma Water Resources Board				
8.	County Health Department				
9.	Oklahoma Department of Environmental Quality				

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Administration Headquarters,
918-256-5545, P.O. Box 409, Vinita, OK 74301

Application for Commercial Operations Permit

Permit Period July 1 Thru June 30

FOR GRDA USE ONLY:		UTM Coordinate		
Reservoir _____	GRDA Map & Tract Number _____	x _____	y _____	Permit Number _____

ESTABLISHMENT: _____

NAME: _____

MAILING ADDRESS: _____

City _____ State _____ Zip _____

LAKE ADDRESS: _____

City _____ State _____ Zip _____

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

INSURANCE COMPANY: _____ AGENT: _____

LOCATION OF FACILITY: Lake _____ Arm/Cove/Area _____

DRIVING DIRECTION BY LAND: _____

LEGAL DESCRIPTION of PROPERTY: County _____

Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

DO YOU SELL GAS? <input type="checkbox"/> YES <input type="checkbox"/> NO	DO YOU HAVE A PUMP OUT FACILITY? <input type="checkbox"/> YES <input type="checkbox"/> NO
DO YOU HAVE STORAGE TANKS? <input type="checkbox"/> YES <input type="checkbox"/> NO	ARE THEY FOR <input type="checkbox"/> COMMERCIAL USE OR <input type="checkbox"/> PRIVATE USE
LOCATION: <input type="checkbox"/> ABOVEGROUND <input type="checkbox"/> UNDERGROUND	ARE THEY LOCATED ON GRDA PROPERTY? <input type="checkbox"/> YES <input type="checkbox"/> NO

EXHIBIT	QTY	MISCELLANEOUS	RATE	FEE
_____	_____	BREAKWATER(S) size _____	\$.06 sq ft	_____
_____	_____	BOAT RAMP(S)	\$200 each	_____
_____	_____	MARINE RAILWAY(S)	\$200 each	_____
_____	_____	CHARTER CRAFT(S)	\$200 each	_____
_____	_____	WORK BARGE(S)	\$200 each	_____
<input type="checkbox"/> YES	<input type="checkbox"/> NO	DREDGING CONTRACTORS PERMIT	\$200	_____
<input type="checkbox"/> YES	<input type="checkbox"/> NO	DOCK INSTALLERS PERMIT	\$300	_____
<input type="checkbox"/> YES	<input type="checkbox"/> NO	RENTAL OF BOATS OR WATER CRAFT	\$200	_____

EXHIBIT	DOCK TYPE & SIZE	# OF	DOCK FEE \$25 X # OF SLIPS (including PWC slips)	TOTAL SQ FT	DOCK FEE \$.06 PER SQ FT
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
(Attach Plot Drawing of Exhibits)		TOTALS	_____	_____	_____

To make application for a change in docks, either additional or replacement, give a general description of the work to be done here and list the sizes of the structures above.

TO THE GRAND RIVER DAM AUTHORITY:

I hereby make application for a Commercial Operations Permit for the described facilities and equipment upon the shorelands and waters of GRDA, subject to the terms and conditions below, and hereby agree to be bound by said terms and conditions:

Applicant agrees to abide by the Rules and Regulations Governing the Use of the Shorelands and Waters of GRDA, which are incorporated and made a part of this Agreement. **Applicant may not rely upon oral statements made by GRDA personnel. Only written statements, agreements, or approvals signed by authorized personnel shall be considered the official statement, agreement or acknowledgement of GRDA.**

Applicant understands that GRDA may have to obtain the approval of the Federal Energy Regulatory Commission (FERC) BEFORE beginning this project, and agrees to provide appropriate information and to abide by any Order issued by FERC.

Applicant agrees to provide GRDA with a Certificate of Insurance or Bond for a minimum of \$100,000 combined single limits or \$100,000 each for Bodily Injury and Property Damage and to notify GRDA in writing within ten (10) days if the insurance carrier or bond carrier is changed.

Applicant agrees to promptly pay the annual fee imposed by GRDA for the privilege of placing and maintaining the described facilities on the waters of GRDA.

Applicant agrees to notify GRDA in writing within ten (10) days if the ownership or management of the facility for which this Permit is issued changes, or if there are any changes to the facility which would affect the fees charged for this permit application.

Applicant's Permit issued upon this application may be revoked at any time by GRDA for any violation of GRDA's regulations, regulations of the State Department of Health, applicable provisions of the National Electric Safety Code, or Federal or State Law. GRDA may terminate Applicant's Permit thirty (30) days after having mailed written notice of said violation(s) to Applicant.

If GRDA does, in fact, revoke said Permit, Applicant will remove said facilities from GRDA waters within thirty (30) days or be liable to GRDA for all costs, including, but not limited to, court costs and attorney fees, should GRDA pursue legal action for removal of facilities. Applicant will not be entitled to any unused portion of fees that may have been collected by GRDA.

Applicant, his agents or representatives agree that said facilities shall be operated at his own risk, and GRDA is hereby released from any and all claims for injuries or damages incurred by the Applicant, his representatives, agents or guests. Applicant, his heirs or representatives agree that they will indemnify and save harmless GRDA against any and all claims for damages to property or injuries received by anyone as a direct or indirect result from the operation of said facilities upon GRDA's waters arising either from alleged or in fact negligence of the Applicant, his agents, representatives, servants or guests. Applicant further agrees to defend any and all suits filed or prosecuted against GRDA, and to pay any and all judgments, together with court costs, attorney fees and all other expenses of defending such suits.

Applicant agrees to post signs on property where development occurs and that the signs are located in such a way that they can be seen from the water. _____ (Please initial) (These signs will be provided by GRDA's Lake Patrol Office)

I verify that I have read the above and foregoing, together with the Rules and Regulations mentioned herein, and I fully understand them and am aware of their contents.

Date

Signature of Applicant

APPROVAL FOR COMMERCIAL OPERATIONS PERMIT

I hereby certify that I have inspected the facilities described, and that they meet the requirements of GRDA regarding construction and safety accessories of equipment.

Date

Ecosystems Compliance Officer

Permission is hereby granted to Applicant to maintain the described facilities on the waters and shorelands of GRDA subject to the conditions contained in the application and GRDA's Rules and Regulations.

Date

Office of Ecosystems Management

Docks with Electrical Service

Any residential dock that has electrical service shall strictly adhere to the regulations set forth in the State of Oklahoma Fire Code for floating structures. At the time of application a certificate of inspection from a state licensed electrician shall be attached before the permit will be issued. The permittee will then, every three (3) years, resubmit a current certificate of inspection to the office of Ecosystems Management. GRDA Electrical Inspection Stickers are to be prominently displayed on docks indicating compliance with this requirement.

Check List for Dock Electrical Permit Inspection Form

This form is to be used by any Oklahoma Licensed and Bonded Electrician to provide information when a dock is inspected by an electrician for permit purposes. All sections must be completed for the Dock Permit to be completed. The form must be completed by the Electrician and accompany all other forms and information in your dock permit application.

Electrical Inspection Correction Form

This form is to be used by any Oklahoma Licensed and Bonded Electrician to list corrections made that are required by a GRDA Dock Electrical Inspection. This inspection is done by GRDA personnel. Failure to complete this form may result in the loss of the Dock Permit.

Checklist for Dock Electrical Permit Form Inspection

PERMIT NAME: _____

PHONE NUMBER: _____

DOCK LOCATION: _____

DOCK PERMIT NO: _____

- YES NO 1. Dock Permit ID Number displayed correctly?
- YES NO 2. Lake Pump Electric Equipment meets Code and is in satisfactory condition?
- YES NO 3. Dock Structure and Electrical Service grounded correctly and no ground faults detected in structure or water?
- YES NO 4. Dock Electrical Service Disconnect in compliance?
- YES NO 5. Dock Conduit and lighting in compliance and acceptable condition?
- YES NO 6. Dock Breakers and Junction Boxes in compliance and acceptable condition?
- YES NO 7. Dock Electrical Service wire in compliance and acceptable condition?
- YES NO 8. All required Dock Receptacles protected by operational GFCI Circuitry and moisture sealed?

a. Company Name (Printed) _____

b. Contractor Name (Printed) _____ Signature _____

c. Contractor License Number _____ License Expiration Date _____

NOTE: All inspections, repairs and new installations must conform to the **CURRENT** National Electrical Code (NEC) Standards.

Dock Owner and/or Permit Holder (Please Print Name)

Property Owner (if different)

Dock Owner and/or Permit Holder (Signature)

Property Owner (Signature)

NOTE: Every third renewal of your dock permit, this form must be completed and included with your payment Failure to complete and attach this form will cause a delay or denial of the issue of your dock permit.

After completion of this form, please mail to the address in the upper right corner. Incomplete forms can not be processed.

Electrical Inspection Correction Form

REPAIR DATE: _____

INSPECTION DATE: _____

INSPECTION FORM NO: _____

1. Electrical Company _____

a. Licensed Bonded Electrician _____

b. License Number _____ Expiration Date _____

c. Phone Number _____

2. Dock Location _____

3. Dock Permit Number _____

4. List each Item Number from the Dock Inspection Form that required correction and indicate the corrections made. Attach copy of Inspection Form.

Item No. _____

Item No. _____

Item No. _____

Item No. _____

Item No. _____

Item No. _____

Electrician (Please Print Name)

Dock Owner and/or Permit Holder (Please Print Name)

Electrician (Signature)

Dock Owner and/or Permit Holder (Signature)

Environmental and Wetland Consultants

Updated: January 15, 2008

Freese and Nichols, Inc.
4055 International Plaza, Suite 200
Fort Worth, TX 76109, 817-735-7300
Mr. Steven P. Watters, www.freese.com

Eagle Environmental Consulting, Inc.
P.O. Box 335, Vinita, OK 74301
918-272-7656, 918-256-6131 (fax)
Mr. Steve Votaw - steve@eagle-env.com

EGIS, Inc. – Environmental Consulting
EGIS Natural Developments, Inc.
314 South Main, Bentonville, AR 72712
479-271-9252, 1-800-718-2492
479-271-8627 (fax), www.egis-env.com
Mr. Manuel Barnes - mbarnes@egis-env.com

The Benham Companies, LLC
3700 W. Robinson, Suite 200
Norman, OK 73072, 405-701-3131, 405-364-1708
Ms. Debby McElreath, debby.mcelreath@benham.com
Tulsa Office: One West 3rd Street, Suite 100
Tulsa, OK 74103, Ms. Renee Fleshman
918-492-1600, 918-496-0132 (fax)

David Blackford Consulting Services, LLC
12 Doral Lane, Holiday Island, AR 72631-5116
479-253-7529, 479-253-2792 (fax)
lida37@arkansas.net

TranSystems Corporation
2400 Pershing Road, Suite 400, Kansas City, MO 64108
816-329-8700, 816-329-8701 (fax), Mr. Tom Clark

Loomis Austin
3103 Bee Cave Road, Suite 225, Austin, TX 78746
512-327-1180, 512-327-4062 (fax)
Mr. Clifton Ladd - cladd@loomismoore.com

Trinity Consultants
120 East Sheridan, Suite 205, Oklahoma City, OK 73104
405-228-329, 405-228-3293 (fax)
www.trinityconsultants.com

URS Corporation
1437 S. Boulder, Suite 1020, Tulsa, OK 74119
918-582-2552, 918-582-1328 (fax)
Ms. Michelle Barnett

Envir-Rowe Services, LLC
215 County Road 1222, Pittsburg, TX 75686-5617
903-855-1004, 903-235-2734 (cell)
Mr. Jed Rowe, CWD, envir-rowe@earthlink.net

Applied Ecological Services, Inc.
1904 Elm Street, Eudora, KS 66025
785-542-3090, 785-542-3570 (fax)
www.appliedeco.com

Maxim Technologies, Inc.
P.O. Box 7777, Boise, ID 83707, 208-389-1030
Mr. Walt Vering

Horizon Environmental Services, Inc.
1507 South IH 35, Austin, TX 78741
512-328-2430, 512-328-1804 (fax)
Mr. C. Lee Sherrod, lee_sherrod@horizon-esi.com
www.horizon-esi.com

Advanced Ecology, Ltd.
2557 State Hwy 7 Eas, Center, TX 75935
1-800-780-9105, 936-598-9588, 936-598-9579 (fax)
Mr. Keith Webb, kwebb@advancedecology.com

KBA EnviroScience, Ltd.
359 Lake Park Road, Suite 110, Lewisville, TX 75057
972-436-9669, 972-436-9667 (fax)
Mr. C. Keith Bradley, www.kbaenv.com

Barker Lemar Engineering Consultants
1801 Industrial Circle
West Des Moines, IA 50265, 515-256-8814
Mr. Kevin M. Griggs, Wetland Manager
kgriggs@barkerlemar.com, www.barkerlemar.com

Black and Associates Environmental Consultants, Inc.
1908 W. Boyd, Norman, OK 73069-4830
405-360-2852, 405-360-2880, Mr. Jerry J. Black

Terracon Consultants, Inc.
10930 East 56th Street, Tulsa, OK 74146
918-250-0461, 918-250-4570 (fax)
www.terracon.com

Adaptive Ecosystems, Inc.
801 Main Street, Suite 103, Grandview, MO 64030
816-966-8199, 816-966-8212 (fax)
Stephen W. Parker, MS – President
sparker@adaptiveecosystems.com
www.adaptiveecosystems.com

TRC Environmental Corporation
505 East Huntland Drive, Suite 250
Austin, TX 78752, 512-684-3144
Ms. Carla Kartman, ckartman@trcsolutions.com

Isbell Engineering Group, Inc.
1405 W. Chapman Drive, Suite 200, Sanger, TX
76266, 940-458-7503, Mr. Cody Johnson

Blackshare Environmental Solutions
5601 N.W. 72nd, Suite 312, Oklahoma City, OK 73132
405-603-2500, Mr. Charles K. Ahn

Goshawk Environmental Consulting, Inc.
P.O. Box 151525, Austin, TX 78715-1525
Physical Address: 5383 Hartson, Kyle, TX 78640
512-262-7526, 281-271-8140 (fax)
Mr. Zane N. Homesley, www.goshawkenv.com

Atoka, Inc. Consulting Services
2695 Airport Road, Hot Springs, AR 71913, 800-305-2392
Dr. Jerry Overton, JVOverton@sbcglobal.net
www.ATOKAINC.com
or Little Rock Office: 11701 I-30, Bldg 1, Suite 119,
Little Rock, AR 72209, 501-455-1700

Hoffman – Prieur & Associates, Inc.
Land Surveyors/Consulting Engineers
320 O'Bryan Lane, Van Buren, AR 72956
479-474-7916, 479-474-2450 (fax)
Mr. Van Hale, P.E., www.hoffman-prieur.com

Kimley-Horn and Associates, Inc.
12700 Park Central Drive, Suite 1800
Dallas, TX 75251, 972-770-1300, 972-239-3820 (fax)
Mr. Larry Clendenen, larry.clendenen@kimley-horn.com
www.kimley-horn.com

Whitenton Group, Inc.
Environmental Consultants and Training
13280 Rivercrest Drive, Little Rock, AR
72212, 501-225-1552, 501-223-5312 (fax),
501-258-7141 (mobile)
Ms. Lisa Gandy, PhD, PWS
www.whitentongroup.com
Texas Office: 3413 Hunter Road
San Marcos, TX 78666
512-353-3344, 512-212-4043 (fax)
512-470-7195 (mobile)
Mr. Scott Jecker, CWB, PWS

Enercon Services, Inc.
5100 East Skelly Drive, Suite 450
Tulsa, OK 74135
918-665-7693, 918-665-7232 (fax)
or Oklahoma City Office
6525 N. Meridian, Suite 503
Oklahoma City, OK 73116
405-722-7693, 405-722-7694 (fax)
Ms. Emily Trice

FTN Associates, Ltd.
3 Innwood Circle, Suite 220
Little Rock, AR 72211
501-225-7779, 501-225-6738 (fax)
Dr. Gary E. Tucker, get@ftn-assoc.com
www.ftn-assoc.com
Fayetteville Office: 124 West Sunbridge
Drive, Fayetteville, AR 72703
479-571-3334, 479-571-3338 (fax)
Dr. David X. Williams, dxw@ftn-assoc.com

Kleinfelder
10926 E. 55th Place, Tulsa, OK 74146
918-627-6161, 918-627-6262
Mr. Brent Neece, bneece@kleinfelder.com
Lenexa KS Office: 7802 Barton
Lenexa, KS 66214
913-962-0909, 913-962-0924
Mr. Tom Plattner, tplattner@kleinfelder.com

Bluum Outdoor Environments
507 S. Main, Suite 606, Tulsa, OK 74103
918-599-8500, 918-599-8180 (fax)
918-853-8733 (cell), Mr. J. Nathan Vaughn

Soil Restoration Technologies
P.O. Box 639, Bixby, OK 74008
918-449-1175, 918-449-1176 (fax)
918-527-5718
Mr. Bob Richardson, Restoration Biologist

Aquaeter, Inc.
215 Jamestown Park, Suite 100
Brentwood, TN 37027
615-373-8532, 615-373-8512 (fax)
Amanda Klink, aklink@aquater.com
awilding@aquater.com
www.aquater.com

A & M Engineering and Environmental
Services, Inc.
10010 E. 16th Street, Tulsa, Oklahoma
74128-4813
918-665-6575, 918-665-6576 (fax)
aandm@aandmengineering.com



**GRDA
RESIDENTIAL DOCK
APPLICATION PACKET**

Safety and Construction Standards for New and Existing Residential Docks

Located on Grand River Dam Authority Lakes

PURPOSE AND PREFACE

These standards of the Grand River Dam Authority apply to all residential Docks on lakes, rivers and tributaries under the control of the Grand River Dam Authority. These standards are adopted pursuant to the authority of the Grand River Dam Authority as provided by law and are intended to provide minimum requirements to protect public safety, access and water quality.

DEFINITIONS

Abandoned Dock: A Dock that (1) is adrift; or (2) owner cannot be located within a reasonable amount of time.

Approved Flotation: All flotation materials, which are commercially manufactured for marine use shall be fabricated so as not to become waterlogged, crack, peel, fragment or be subject to loss of beads, or in the case of snap together, sectional rotomolded polyethylene Docks (i.e. included but not limited to E-Z Dock, or Connect-a-Dock). Styrofoam flotation must be fully encased of solid polyethylene or similar materials.

Design Elevation: The elevation, measured in feet above mean sea level which is considered the normal elevation of each lake; Grand - 742 feet, Hudson – 619 feet.

Dilapidated Dock: A Dock that (1) has any structural members, roofing, decking, flotation or walkways that are not securely attached and could pose an immediate safety or navigation hazard; (2) is submerged; (3) is not floating upright; (4) has deck or floors that are broken, missing and/or below water level; (5) is in a state of disrepair or (6) is otherwise not in full compliance with these minimum standards.

Dock: A non-commercial floating structure on GRDA waters which is attached to the shoreline. A Dock includes, but is not limited to, an enclosed floating structure, a floating platform, a wharf, and/or a boat house. A Dock may or may not include watercraft slips.

Encapsulated Flotation: Expanded polystyrene fully encased by high density, high molecular weight polyethylene with a minimum thickness of .150" on the bottom and .125" on the top.

Expansion: Any increase in the water surface area occupied by a residential Dock.

Existing Residential Dock: A non-commercial residential Dock that is permitted on or before the effective date of these standards constructed and located on the water surface of GRDA lakes or waterways.

GRDA: The Grand River Dam Authority.

GRDA Lakes: Grand Lake, Lake Hudson, W. R. Holway Lake and all rivers, creeks or other tributaries in the Grand River system under the statutory purview of the Grand River Dam Authority.

Modification: Any change, addition or alteration of a residential Dock; or any change, addition or alteration in the location, configuration, structure or substructure of a residential Dock. A modification does not include routine maintenance and repairs, or repairs required by GRDA to bring a residential Dock that is dilapidated or abandoned into compliance with these standards.

Residential Dock: A noncommercial Dock accommodating 10 or less watercraft associated with a single-family residence for which no compensation is/will be received by the owner of the Dock for its use. This definition also includes swim platforms.

Shoreline: The line at which the water surface comes into contact with the land at any given time. The shoreline will move as water levels change.

Water Surface Area: The area including, but not limited to, the length times the width of the residential Docks floating; and fixed structures with open and covered slips located on or over the water. Walkways are included in water surface area measurements.

GRDA Board Approval Date: June 7, 2006
STANDARDS

- A.** No Dock shall be installed until such time as the Applicant receives a letter from GRDA approving such installation. A sample copy of the letter of approval is attached as Exhibit "A" to these Standards.
- B.** There shall be a permit issued by the Office of Ecosystems Management for each residential Dock located on the waterways controlled by GRDA. A permit may be obtained only after the submission of an application duly executed, in writing by the applicant, upon a form prescribed and provided by GRDA. Said application shall have attached:
- 1.** Scaled Drawings: Overhead and Profile dimensions drawn to scale (i.e. 1" = 10'). Detailed description of Dock (i.e. color, covered or uncovered, enclosed). Your local Dock builder can provide these drawings.
 - 2.** Length and width of walkway.
 - 3.** Detailed description of anchoring and stabilization system.
 - 4.** Copy of plat map.
 - 5.** Plot drawing showing placement of Dock on water and minimum distances between Dock and any other floating structures or markers within 150'. Must include the shortest distance across cove from 750' to 750' (Grand) or 622' to 622' (Hudson) elevation.
 - 6.** Evidence of land ownership as filed of record in the County Clerk's Office.
 - 7.** Driving directions by land and water.
 - 8.** Waiver Application if variance is requested.
 - 9.** Landowner Permission Form if applicant is not the owner of the land upon which the Dock will be anchored. Additionally, evidence of land ownership as filed of record in the County Clerk's Office is required.
 - 10.** A Survey must be provided to verify 1) the applicant's property line, and 2) GRDA's property line if applicant's property is not adjacent to GRDA property. Survey must be completed and signed by certified land surveyor, licensed to do business in Oklahoma. The applicant need not have a new survey completed if (i) an old survey clearly indicates the GRDA property line or (ii) the legal description of a previous owner's deed of conveyance uses the GRDA property line as a point of reference. GRDA reserves the right to require a new survey if justified by the circumstances.
 - 11.** If a Dock is wired for electricity, the "Check List for Dock Electrical Permit Inspection Form" must be provided and signed by a licensed electrical contractor before a final permit will be approved.
- C.** A residential Dock must be constructed of such quality material as to withstand lake level changes and exposure to strong wind, fast moving water and severe wave action. Main support frame shall be constructed of no less than two (2) inch schedule 40 steel pipe or two (2) inch square tubing, 3/16 in thickness, or other such material having the same tensile strength. Decking and walkways shall be constructed of marine grade material of no less than one and one-fourth (1¼) inch thickness. Sheet metal for roofs and walls shall be twenty-six (26) gauge or greater in thickness. Flotation materials shall be as stated below.

Flotation:

- 1.** All flotation materials for: (i) newly constructed Docks, (ii) relocated Docks which move from one location to another location, (iii) Docks which have been taken in trade and offered for re-sale or trade by a licensed Dock builder, or (iv) other water-use structures and facilities shall be constructed of Approved Flotation material and be commercially manufactured for marine use. In the event a Dock is sought to be relocated and has non-encapsulated white styrofoam in good condition, the Applicant may seek written permission from the GRDA Office of Ecosystems Management for the styrofoam to remain with the dock upon relocation. The written permission must be obtained from the GRDA Office of Ecosystems Management prior to relocation of the dock. In the event the GRDA Office of Ecosystems denies Applicant's request for the Styrofoam to remain, Applicant may request that the GRDA Board of Directors review the Applicant's request. Otherwise, all styrofoam flotation must be fully encapsulated in solid polyethylene or similar materials.
- 2.** Existing traditional flotation material (i.e. non-encapsulated white styrofoam) which was secured in place as of December 31, 2004, and is not being relocated or transferred and is in compliance with previous rules is authorized until, in GRDA's judgment, the existing flotation is no longer serviceable at which time all flotation material shall be replaced with Approved Flotation upon notification from GRDA. Any replacement material shall be Approved Flotation material unless otherwise provided herein.
- 3.** Beginning July 1, 2006, no non-encapsulated white styrofoam may be used to replace flotation material unless a waiver is obtained prior to construction.

- D.** No Dock shall extend more than one third (1/3) of the cove measured from 750 feet mean sea level to 750 feet mean sea level on the nearest opposite shoreline of Grand Lake unless the permit sets forth a directional bearing of the Dock's orientation ensuring adequate public access and safety. On Lake Hudson, the elevation shall be 622 feet mean sea level in figuring the one third (1/3) of the cove rule. Additionally, no Dock shall extend more than 125 feet from the applicable mean sea level unless the water depth under the shoreside of the Dock, at 742 mean sea level on Grand Lake and 618 mean sea level on Lake Hudson, is less than 8 feet. In such instance, the Office of Ecosystems Management may approve the extension of the Dock up to the length necessary to reach a depth of 8 feet of water. The Office of Ecosystems Management reserves the right to deny an application if the dock extends more than 125 feet from the applicable mean sea level, if the Dock exceeds more than 1/3 of the cove, or if the dock poses a hazard to the public. In considering whether to approve such application, the Office of Ecosystems Management shall consider the positive and negative impacts to the characteristics, zoning and prevailing permitted uses within a half-mile radius of the proposed activity; the shoreline topography and geometry; the safety, navigation and flood control requirements; environmental impacts; potential economic development and tourism benefits; recreational use impacts; and applicable statutory mandates.
- E.** If a Dock is located parallel with the shoreline, the open end, from the edge of the Dock to the property line, must be one and one half (1 ½) times the length of the slip. For example, a thirty (30) foot slip would require forty five (45) feet from the edge of the Dock to the adjacent property line.
- F.** A residential Dock must be lighted from sunset to sunrise and during periods of low light conditions if the Dock: (1) extends beyond 125 feet from the shoreline, or (2) otherwise poses a navigation hazard. The minimum safety lighting shall be flashing or continuous lights defining the distal (lakeside) corners of the dock. Solar lights are recommended.
- G.** Any residential Dock that has electrical service shall strictly adhere to the regulations set forth in the State of Oklahoma Fire Code for floating structures. All Docks constructed or modified after June 1, 2006 shall be required to provide to GRDA, within thirty (30) days following completion, a certificate signed by a licensed electrical contractor, evidencing compliance with all laws, regulations and codes regarding electrical systems and wiring. Before a Dock permit may be transferred, a certificate signed by a licensed electrical contractor evidencing compliance with all laws, regulations and codes regarding electrical systems and wiring shall be provided to GRDA. GRDA Electrical Inspection Stickers are to be prominently displayed on Docks indicating compliance with this requirement.
- H.** Any Dock which is classified as "Not Electrically Wired" (Red Sticker) may not have any permanent electrical supply installed without complying with these Rules. A temporary electrical supply (extension cord, etc.) shall not be left unattended. Any temporary electrical supply must be an approved UL Listed Supply Cord and be in good condition with all electrical connectors attached and in use. Any temporary electrical supply must use GFCI Receptacles.
- I.** At the time a new or used Dock is installed, the Dock installer shall post a permanent sign visible on the Dock. The sign shall include the name of the Dock installer, the Dock installer's phone number and the year the Dock was installed. The sign shall measure at least 5" x 5". Dock builder shall provide a space immediately adjacent to its permanent sign for GRDA to affix the dock number. Both signs shall be easily visible from the water.
- J.** Upon issuance of said permit, a number will be assigned to each residential Dock. These numbers shall be no smaller than three (3) inches high and shall be affixed to the residential Dock as to be easily visible from the water.
- K.** Permit holder agrees to promptly pay the annual permit fee as set forth in the Schedule of Fees in the Rules & Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority. A colored Dock permit sticker will be returned to permit holder. This sticker is to be prominently displayed on Dock and indicates that the annual permit fee has been paid.
- L.** If ownership of a residential Dock is sold or transferred, the new owner must apply for a new permit and notify the Office of Ecosystems Management within fourteen (14) days after property transfer is complete or remove the facility and restore the use area within thirty days (30) after ownership transfer. The application process to transfer an existing residential Dock shall be the same for requesting a permit for a new Dock, however, the applicant need not have a new survey completed if (i) an old survey clearly indicates the GRDA taking line or (ii) the legal description of a previous owner's deed of conveyance uses the GRDA taking line as a point of reference. GRDA reserves the right to require a new survey if justified by the circumstances.
- M.** The Office of Ecosystems Management reserves the right to authorize representatives to enter the property of the permit holder as necessary to make inspections and/or other activities under permit.

N. The Board, upon written application and after hearing subject to the procedural and substantive standards hereinafter set forth may grant waivers to the application of these rules and regulations:

- 1.** Waivers of these rules and regulations may be granted by the Board of Directors of GRDA upon application. In approving waivers of these rules and regulations the Board of Directors shall consider positive and negative impacts to the following:
 - Characteristics, zoning and prevailing permitted uses within a half-mile radius of the proposed activity.
 - Shoreline topography and geometry.
 - Safety, navigation and flood control requirements.
 - Environmental impacts
 - Potential economic development and tourism benefits.
 - Recreational use impacts.
 - Statutory mandates (820.S.861 et seq.)
- 2.** The applicant shall be required to give notice and the Board shall allow public comment, either at a regularly scheduled meeting of the Assets Committee or at formal public hearing, before acting on any request for a waiver of these rules.
- 3.** Public notice of the waiver request shall be given in accordance with guidelines established by the GRDA staff and shall include:
 - a.** Publication in newspapers of general circulation, including the county in which the property is located.
 - b.** Mailing of written notice to all owners of property within a 300-foot radius of the exterior boundaries of the subject shoreline property. (Please note: This is the applicant's responsibility. Certified Mail receipts are required as proof of mailing.) **GRDA will not post in newspapers or website until receipts are received.**
 - c.** Posting on GRDA's website for a period of thirty (30) days.
 - d.** And such other notice as directed by GRDA staff.

A request for a waiver shall be initiated by the filing of a written application and shall be set for hearing as prescribed by these rules. A waiver, which has not been utilized within three (3) years from the date of the order granting the same shall thereafter be void unless otherwise extended by the Chief Executive Officer.

- O.** No attempt shall be made by any permit holder to forbid the use of all public access land and/or water, at/or adjacent to a permitted facility.
- P.** The permit holder agrees not to lease, rent, sublet or provide to others, by any means of engaging in a commercial activity, the permitted facility. This will not preclude the permit holder from selling total ownership to the facility.
- Q.** The permit holder agrees to operate and maintain any permitted facility in a manner so as to provide safety, minimize an adverse impact on fish and wildlife habitat, natural environment or cultural resources values and in a manner so as to minimize the degradation of water quality.
- R.** Ownership, construction, operation, use and maintenance of a permitted facility and/or activity are subject to all federal, state and local laws, as well as all rules and regulations now in effect; or those promulgated in the future by the board of directors of the Grand River Dam Authority. Failure to abide by these laws, rules or regulations may be cause for revocation of the permit.
- S.** The permit holder agrees to save and hold harmless the Grand River Dam Authority, its officers and/or directors from any and all causes of action, suits at law or equity, claims or demands, or from any liability of any nature for, or on account of, any damages to persons or property, including a permitted facility, growing out of the ownership construction, operation or maintenance by the permit holder of the permitted facility and/or activities.
- T.** If the permit holder fails to comply with applicable laws, rules or regulations or ceases to use, operate or maintain a permitted facility, the Office of Ecosystems Management may revoke the permit and cause the facility to be removed by contract or otherwise and the permit holder agrees to pay all costs incurred thereof.
- U.** Nothing in these standards shall prevent the GRDA from seeking injunctive relief or any other remedy in law or equity at anytime against any person allegedly violating these standards.
- V.** Whenever regulations or restrictions imposed by these standards are either more or less restrictive than regulations or restrictions imposed by any governmental authority or other entity that might have authority to regulate residential Docks, the regulations, rules or restrictions that are more restrictive or impose higher standards shall govern.
- W.** If a dock is damaged by weather (i.e. high winds, tornado), the permit holder has ninety (90) days to repair.

Exhibit A



You are receiving this letter to advise you that the process of obtaining your permit for private boat dock is nearing completion.

However your dock installation and electrical inspection must be completed within 180 days of receipt of this letter. If additional time should be required you must file for an extension prior to the expiration date, or your application for dock permit will be withdrawn.

Once the dock has been installed, you or the builder must contact the lake patrolman assigned to your application; he will need to take pictures, get UTM readings and do the final inspection. Shortly after, provided your dock is in compliance, you should receive in the mail a copy of your permit and dock statement indicating any outstanding fees required for your permit. Your dock permit/account number will be located in the upper right corner of your application. This number (numbers must be a least 3 inches and in contrasting color) and the current payment sticker must be displayed on the dock so both are easily visible by water.

In obtaining this permit, you are acknowledging and stating that your use of the dock will not endanger the health, create a nuisance or otherwise be incompatible with the overall project recreational use and that you will take all reasonable precautions to insure that the construction, operation and maintenance of the dock will occur in a manner that will protect the scenic, recreational and environmental values of the project.

If you have any further questions concerning this matter please do not hesitate to call us at 918-782-9594 extension 3352.

Cordially,

Ecosystems Compliance Department



Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Office of Ecosystems Management,
918-782-3382, P.O. Box 70, Langley, OK 74350

Permission Form

FOR GRDA USE ONLY:

 GRDA Map & Tract Number

 Permit Number

TO THE GRAND RIVER DAM AUTHORITY:

I/We, the undersigned, _____ ,
whose mailing address is _____ ,
being the owner(s) of the lakefront property on _____ Lake, hereby state that
I/we am aware of the fact that _____ intends to or has
heretofore filed with GRDA an application to:

- _____ anchor and maintain a floating structure permanently in front of my property for so long as I own this property;
- _____ dredge in front of my property;
- _____ place a rail system or boat ramp permanently in front of my property for so long as I own this property;
- _____ other _____ ;
(please describe)

and I/we hereby state that I/we have no objection to this proposed action and it does not, at the present in any way, interfere with or deprive me of any anchorage, wharf, boat dock, houseboat and/or landing privileges; and, further, that I/we have no objection to this statement being attached as an exhibit to the above-named individual's application for GRDA approval.

Dated this _____ day of _____ , 20_____ .

Abutting Landowner

Abutting Landowner

This Permission Form is not transferable or assignable.

Application for Private Dock Permit

FOR GRDA USE ONLY:		UTM Coordinate		
_____	_____	_____	_____	_____
Reservoir	GRDA Map & Tract Number	x	y	Permit Number

NAME: _____

MAILING ADDRESS: _____

City State Zip

LAKE ADDRESS: _____

City State Zip

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

LOCATION OF DOCK: Lake _____ Arm/Cove/Area _____

LEGAL DESCRIPTION of PROPERTY: County _____

Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

APPLICATION IS MADE FOR THE FOLLOWING: (please check mark all that apply)

Construction of a new dock. **Beginning July 1, 2006, no non-encapsulated white styrofoam may be used to replace flotation material unless a waiver is obtained prior to construction.**
Dock builder's name, address and phone number.

Replacement, alteration or an addition to a dock, for which permit number _____ has previously been issued by GRDA. Dock builder's name, address and phone number.

Relocation of a dock from _____ (location) to _____ (location) for which permit number _____ has previously been issued by GRDA.

Transfer of dock permit number _____ from:

NAME: _____ PHONE: _____

ADDRESS: _____
City State Zip

Landowner:

Applicant states that he is the owner of the land to which the dock will be located.

Applicant states that he is NOT the owner of the land to which the dock will be located and that the following person is the landowner: (also attach written permission).

Electric and/or Enclosed Dock?

YES NO Is dock wired for electric?

YES NO Is dock enclosed?

Detail drawing is required to show if enclosed dock has any water lines, appliances, sinks and toilets.

NAME: _____ PHONE: _____

MAILING ADDRESS: _____
City State Zip

TERMS AND CONDITIONS:

In consideration of the Grand River Dam Authority granting a Private Dock Permit to the Applicant, Applicant hereby consents and agrees to the following:

Applicant agrees to abide by the Rules and Regulations Governing the Use of Shorelands and Waters of GRDA, which are incorporated and made a part of this agreement, and that a Permit issued upon this application may be revoked at any time by GRDA.

If GRDA does, in fact, revoke said Permit of Applicant, Applicant shall be wholly responsible for all costs, including, but not limited to, court costs and attorney fees, incurred by the Authority for removal of said structure from GRDA's waters or property.

Applicant, his agent, representatives or assigns, agree that said dock shall be operated at his own risk, and GRDA is hereby released from any and all claims for injuries or damages incurred while on GRDA's premises. Applicant, his heirs, representatives or assigns agree that they will indemnify and save harmless GRDA against any and all claims for damages to property, or injuries received by anyone, as a

direct or indirect result from the operation of said dock upon GRDA's waters, arising either from alleged or in fact negligence of Applicant, his agents, representatives, servants or guests; and Applicant further agrees to defend any and all suits filed or prosecuted against GRDA, and to pay any and all judgments, together with court costs, attorney fees and all other expenses of defending such suits.

Applicant grants permission to GRDA, through its authorized employees, to physically inspect Applicant's dock when necessary and reasonable.

Applicant agrees to promptly pay the annual fee imposed by GRDA for the privilege of placing and maintaining a dock.

Applicant agrees to PROMINENTLY DISPLAY private dock permit number on said dock.

The undersigned hereby certifies that he has read the above and foregoing, together with the Regulations mentioned therein, that he is familiar with the same and hereby agrees to be bound by the terms expressed above.

Date

Signature of Applicant

Applicant may not install a dock until such time as written notification is received from the Office of Ecosystems Management authorizing you to install the dock.

Lake Patrol's Recommendation For Approval

I hereby certify that I have inspected the described dock plans, and the location and that they conform to GRDA's Rules and Regulations.

Date

GRDA Lake Patrol

Approval of Pre-Construction Plan

I hereby certify that I have inspected the application as submitted and that the construction of the proposed dock is in compliance with GRDA Rules and Regulations.

Date

Ecosystems Compliance Officer

Date

Office of Ecosystems Management

Private Dock Permit

I hereby certify that I have inspected the facilities, improvements and work performed and that the same has been constructed and completed in compliance with GRDA's Rules and Regulations.

Date

GRDA Lake Patrol

Photo # _____ Builders decal/logo attached to the dock? Yes No N/A

Date

Ecosystems Compliance Officer

Permission is hereby granted to Applicant to maintain the described dock on the Waters and Shorelands of GRDA subject to the conditions contained in the application and the Rules and Regulations Governing the Use of Shorelands and Waters of GRDA. This permit may be revoked at any time by GRDA upon 90 days notice if GRDA determines that lake conditions make this area unsafe.

Date

Office of Ecosystems Management

Permit Period is January 1st through December 31st.

Annual Permit Fee: A dock 1,100 square feet or less is \$100 plus \$25 for each boat slip over one. A dock over 1,100 square feet is \$100 plus \$.06 per square foot. **Fee is not prorated.**

For more information go to: www.grda.com.

The "Application for Private Dock Permit" is a two page form, this is page 2 of 2.

Private Dock Application Checklist

Name of Applicant: _____
Last First Middle Initial

Please circle all that apply:

New construction; Replacement; Alteration; Addition; Transfer of Ownership; Relocation.

Dock Permit #: _____

All applications submitted must include all of the following or they will be returned to the applicant to be resubmitted with the necessary paperwork. It is the responsibility of the applicant to furnish this paperwork. No dock application can be processed without the following information:

- _____ 1. Scaled Drawings: Overhead (Example 1.A) and Profile (Example 1.B) dimensions drawn to scale (i.e. 1" = 10'). Detailed description of Dock (i.e. color, covered or uncovered, enclosed). Your local Dock builder can provide these drawings.
- _____ 2. Length and width of walkway. (Example 1.A)
- _____ 3. Detailed description of anchoring and stabilization system. (Example 1.A)
- _____ 4. Copy of plat map.
- _____ 5. Plot drawing showing placement of Dock on water and minimum distances between Dock and any other floating structures or markers within 150'. Must include the shortest distance across cove from 750' to 750' (Grand) or 622' to 622' (Hudson) elevation. (Example 1.C)
- _____ 6. Evidence of land ownership as filed of record in the County Clerk's Office. (Example 1.D)
- _____ 7. Driving directions by land (Example 1.E) and water (Example 1.F).
- _____ 8. Waiver Application if variance is requested.
- _____ 9. Landowner Permission Form if applicant is not the owner of the land upon which the Dock will be anchored. Additionally, evidence of land ownership as filed of record in the County Clerk's Office is required.
- _____ 10. A Survey (Example 1.G) must be provided to verify
 - 1) the applicant's property line, and
 - 2) GRDA's property line if applicant's property is not adjacent to GRDA property. Survey must be completed and signed by certified land surveyor, licensed to do business in Oklahoma. The applicant need not have a new survey completed if (i) an old survey clearly indicates the GRDA property line or (ii) the legal description of a previous owner's deed of conveyance uses the GRDA property line as a point of reference. GRDA reserves the right to require a new survey if justified by the circumstances.
- _____ 11. If a Dock is wired for electricity, the "Check List for Dock Electrical Permit Inspection Form" must be provided and signed by a licensed electrical contractor before a final permit will be approved.

Upon final approval all permit identifications (payment decal, dock permit number - minimum of 3 inches tall) must be affixed to the dock so they are easily visible from the water. **Failure to comply with this notice will result in a non-compliance notice.**

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Office of Ecosystems Management,
918-782-3382, P.O. Box 70, Langley, OK 74350

Application for Domestic Raw Water Permit

FOR GRDA USE ONLY:	UTM Coordinate	
_____	_____	_____
Reservoir	GRDA Map & Tract Number	Permit Number

NAME: _____

MAILING ADDRESS: _____

City _____ State _____ Zip _____

LAKE ADDRESS: _____

City _____ State _____ Zip _____

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

LOCATION OF PROPERTY: Lake _____ Arm/Cove/Area _____

DRIVING DIRECTIONS by land: _____

LEGAL DESCRIPTION of PROPERTY: County _____

Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

If purchased land from current GRDA water user GIVE NAME _____

TO THE GRAND RIVER DAM AUTHORITY, VINITA, OKLAHOMA:

Applicant comes now and makes application to the Grand River Dam Authority for a permit to appropriate the waters of the Grand River, the lakes formed thereby, and its tributaries for public, domestic and household uses and purposes as described:

1. State the purpose for which the water is to be used:
 - A. Private Use: residence(s) or cabin(s) (Number of rooms, bath, etc.) _____
 - B. Land and grounds (size of lawn, garden, number of acres, etc.) _____
 - C. Public Use not for resale: cabins, motels, trailer parks, etc. (number of units or size) _____
2. Manner of taking or diversion: (Attach plans showing the location of pump and lines)
Capacity of pump _____ gallons per minute _____ Type of Pump _____ Power _____ H.P. _____
(Note: All electrical work must be inspected by an Oklahoma Licensed and Bonded Electrician)
3. If water is to be taken from the Fort Gibson Lake, state if permission has been obtained from the U.S. Army Corps of Engineers to locate and maintain works upon Government owned property: YES NO

Applicant agrees that if he is granted a permit that he will abide by the Rules and Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority and will pay the fees and charges as fixed by said Rules and Regulations.

_____ Date

_____ Signature of Applicant

Domestic Raw Water Permit Approval

Permit # _____

This application is hereby approved and the water rights granted, all in accordance with and subject to the Rules and Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority, and upon the following terms and conditions and payment of fees, to-wit:

1. It is fully understood and agreed that this permit is granted for domestic and household use only, and the resale of water by applicant is specifically forbidden.
2. Payment of processing fee of \$100 and a \$50 annual renewal fee.
3. This permit shall not be assigned or transferred without the written consent of the Grand River Dam Authority.

_____ Date

_____ Lake Patrol

_____ Date

_____ Ecosystems Compliance Officer

_____ Date

_____ Office of Ecosystems Management

Docks with Electrical Service

Any residential dock that has electrical service shall strictly adhere to the regulations set forth in the State of Oklahoma Fire Code for floating structures. At the time of application a certificate of inspection from a state licensed electrician shall be attached before the permit will be issued. The permittee will then, every three (3) years, resubmit a current certificate of inspection to the office of Ecosystems Management. GRDA Electrical Inspection Stickers are to be prominently displayed on docks indicating compliance with this requirement.

Check List for Dock Electrical Permit Inspection Form

This form is to be used by any Oklahoma Licensed and Bonded Electrician to provide information when a dock is inspected by an electrician for permit purposes. All sections must be completed for the Dock Permit to be completed. The form must be completed by the Electrician and accompany all other forms and information in your dock permit application.

Electrical Inspection Correction Form

This form is to be used by any Oklahoma Licensed and Bonded Electrician to list corrections made that are required by a GRDA Dock Electrical Inspection. This inspection is done by GRDA personnel. Failure to complete this form may result in the loss of the Dock Permit.

Checklist for Dock Electrical Permit Form Inspection

PERMIT NAME: _____

PHONE NUMBER: _____

DOCK LOCATION: _____

DOCK PERMIT NO: _____

- YES NO 1. Dock Permit ID Number displayed correctly?
- YES NO 2. Lake Pump Electric Equipment meets Code and is in satisfactory condition?
- YES NO 3. Dock Structure and Electrical Service grounded correctly and no ground faults detected in structure or water?
- YES NO 4. Dock Electrical Service Disconnect in compliance?
- YES NO 5. Dock Conduit and lighting in compliance and acceptable condition?
- YES NO 6. Dock Breakers and Junction Boxes in compliance and acceptable condition?
- YES NO 7. Dock Electrical Service wire in compliance and acceptable condition?
- YES NO 8. All required Dock Receptacles protected by operational GFCI Circuitry and moisture sealed?

a. Company Name (Printed) _____

b. Contractor Name (Printed) _____ Signature _____

c. Contractor **OKLAHOMA** License Number _____ License Expiration Date _____

NOTE: All inspections, repairs and new installations must conform to the **CURRENT** National Electrical Code (NEC) Standards.

Dock Owner and/or Permit Holder (Please Print Name)

Property Owner (if different)

Dock Owner and/or Permit Holder (Signature)

Property Owner (Signature)

NOTE: Every third renewal of your dock permit, this form must be completed and included with your payment Failure to complete and attach this form will cause a delay or denial of the issue of your dock permit.

After completion of this form, please mail to the address in the upper right corner. Incomplete forms can not be processed.

Electrical Inspection Correction Form

REPAIR DATE: _____

INSPECTION DATE: _____

INSPECTION FORM NO: _____

1. Electrical Company _____

a. Licensed Bonded Electrician _____

b. License Number _____ Expiration Date _____

c. Phone Number _____

2. Dock Location _____

3. Dock Permit Number _____

4. List each Item Number from the Dock Inspection Form that required correction and indicate the corrections made. Attach copy of Inspection Form.

Item No. _____

Item No. _____

Item No. _____

Item No. _____

Item No. _____

Item No. _____

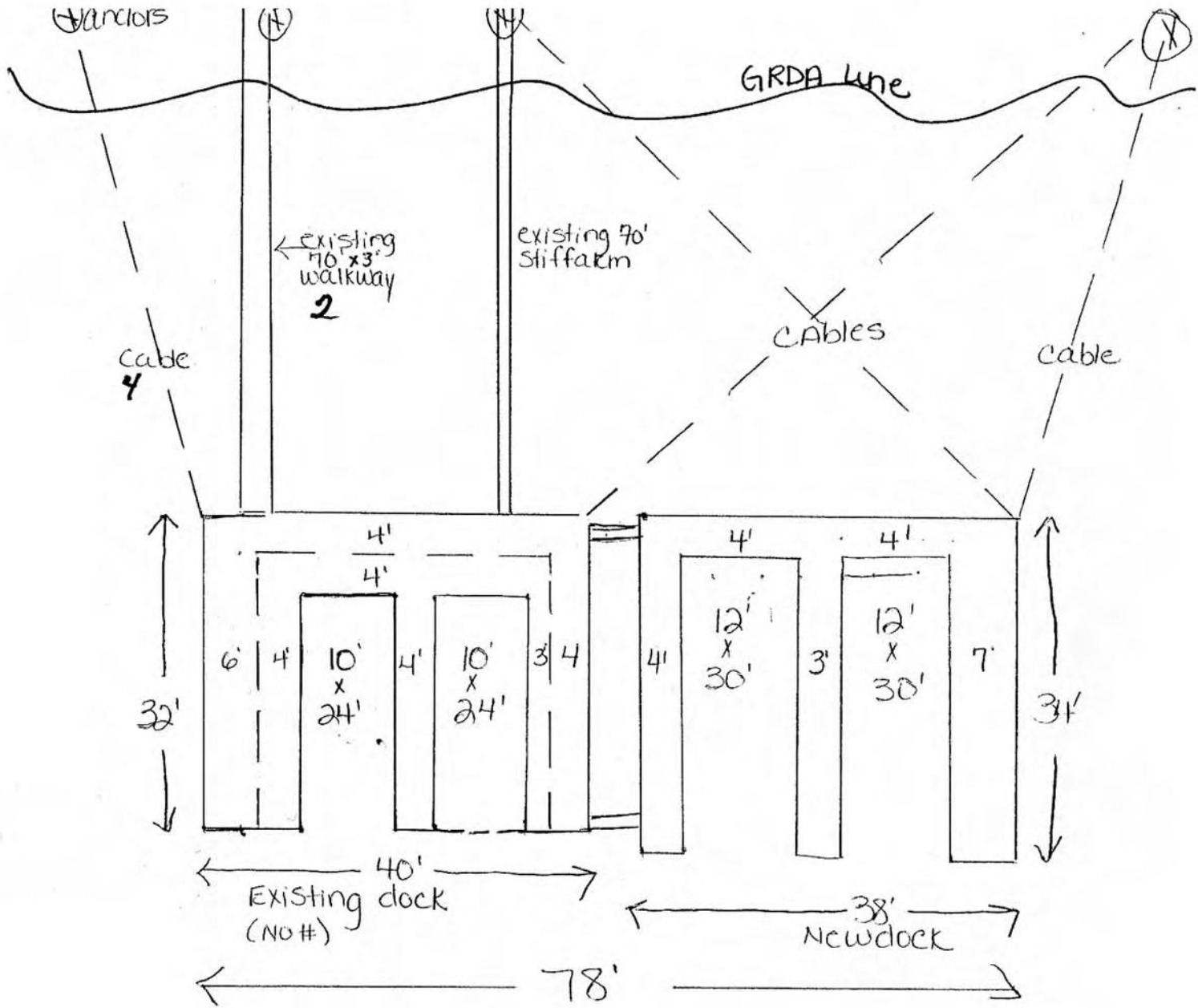
Electrician (Please Print Name)

Dock Owner and/or Permit Holder (Please Print Name)

Electrician (Signature)

Dock Owner and/or Permit Holder (Signature)

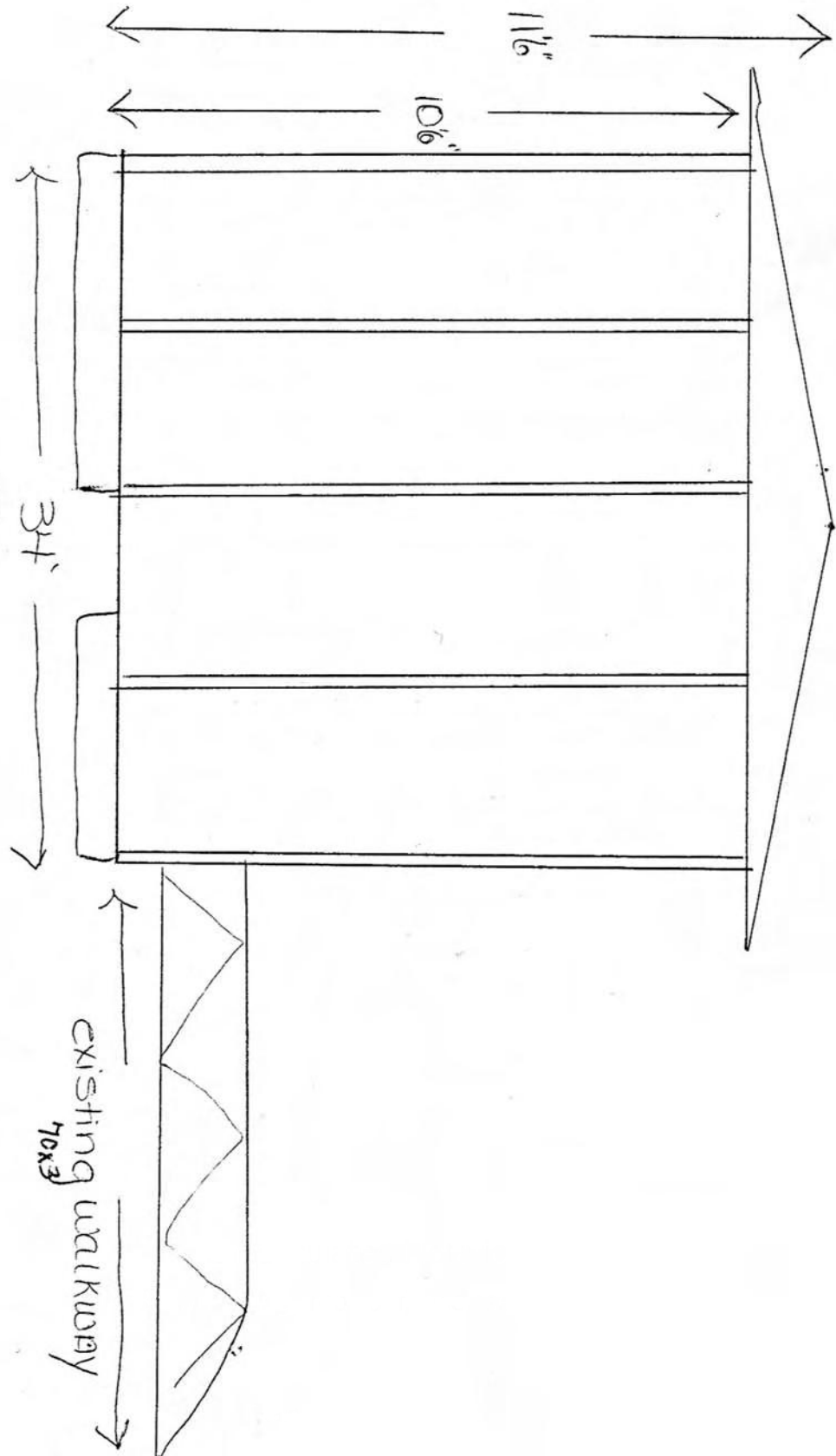
**Example 1.A
Overhead Drawing**



Encapsulated Flotation
Brown siding, red roof, enclosed dock

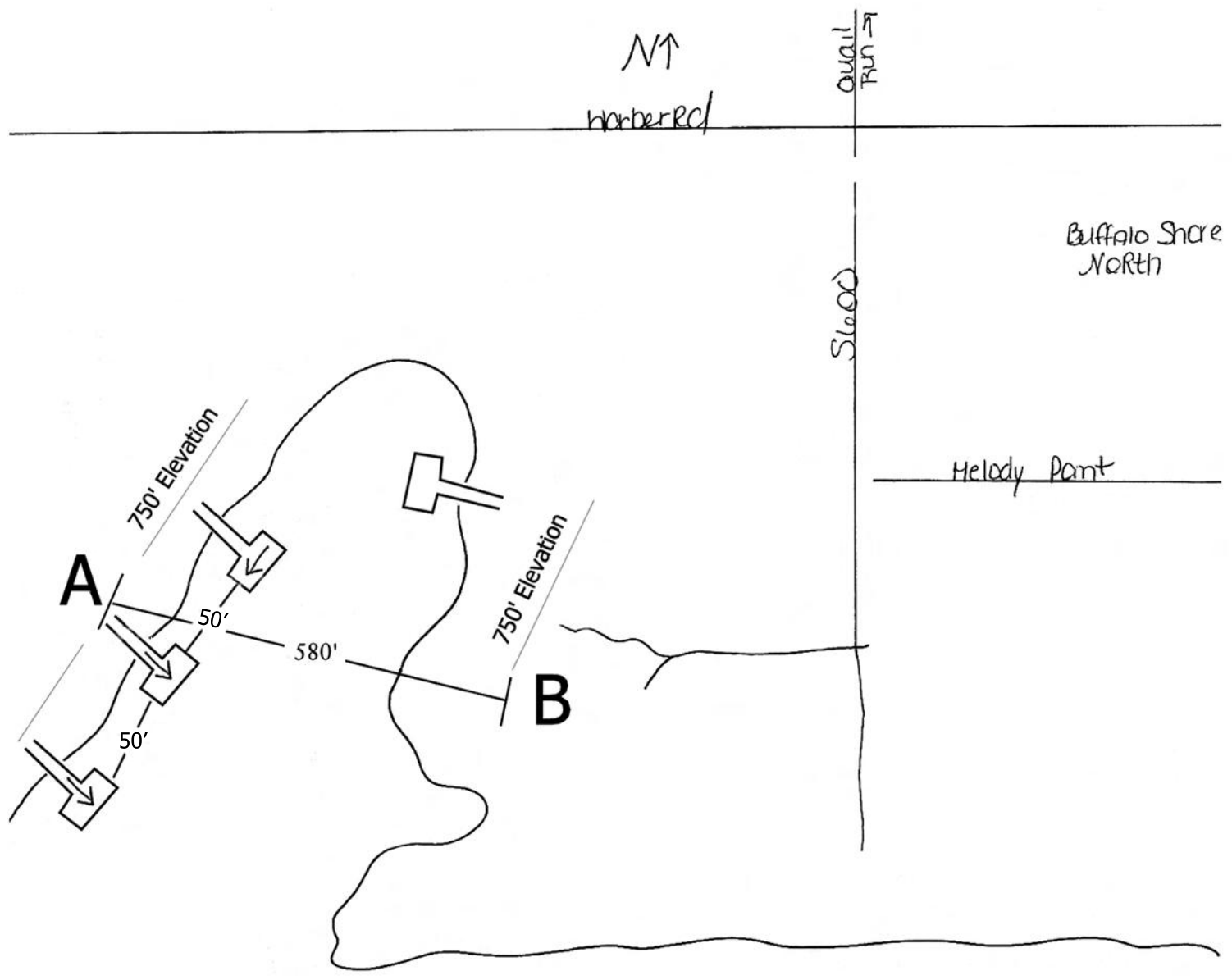
Scale: 1 inch = 16 foot

**Example 1.B
Profile Drawing**



Scale: 1 inch = 8 foot

**Example 1.C
Plot Drawing**



1) "A" represents anchor pt for applicant @ or above 750' (Grand) or 622' (Hudson) elevation

2) "B" represents shortest distance to opposite shoreline @ 750' (Grand) or 622' (Hudson) elevation measured from pt "A"

3) Arrow inside dock represents slip orientation to shore

Example 1.E

Driving Directions by Land

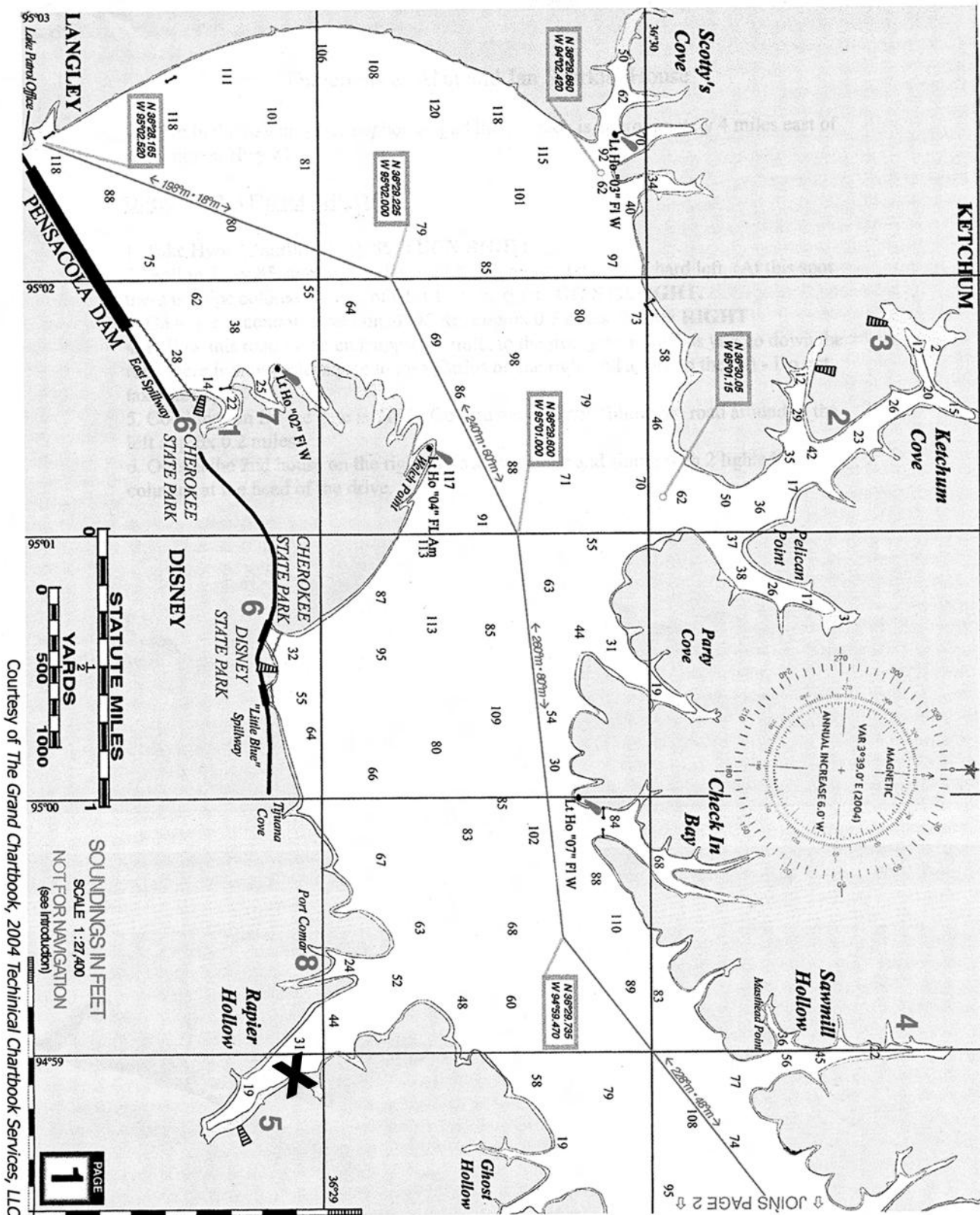
Directions to the Grand House

The Grand House is located in the Sawmill Hollow housing addition which is approximately 4 miles east of Ketchum on Highway 85.

DIRECTIONS FROM THE DAM

1. Take Hwy 82 north to Hwy 85. TURN RIGHT.
2. Follow Hwy 85, approx. 4 miles (through Ketchum) until it takes a hard left. GO STRAIGHT.
3. Go to the second intersection, 5504 Rd, approx 0.5 miles. TURN RIGHT.
4. Follow this road to its end, approx. 1/2 mile. TURN LEFT.

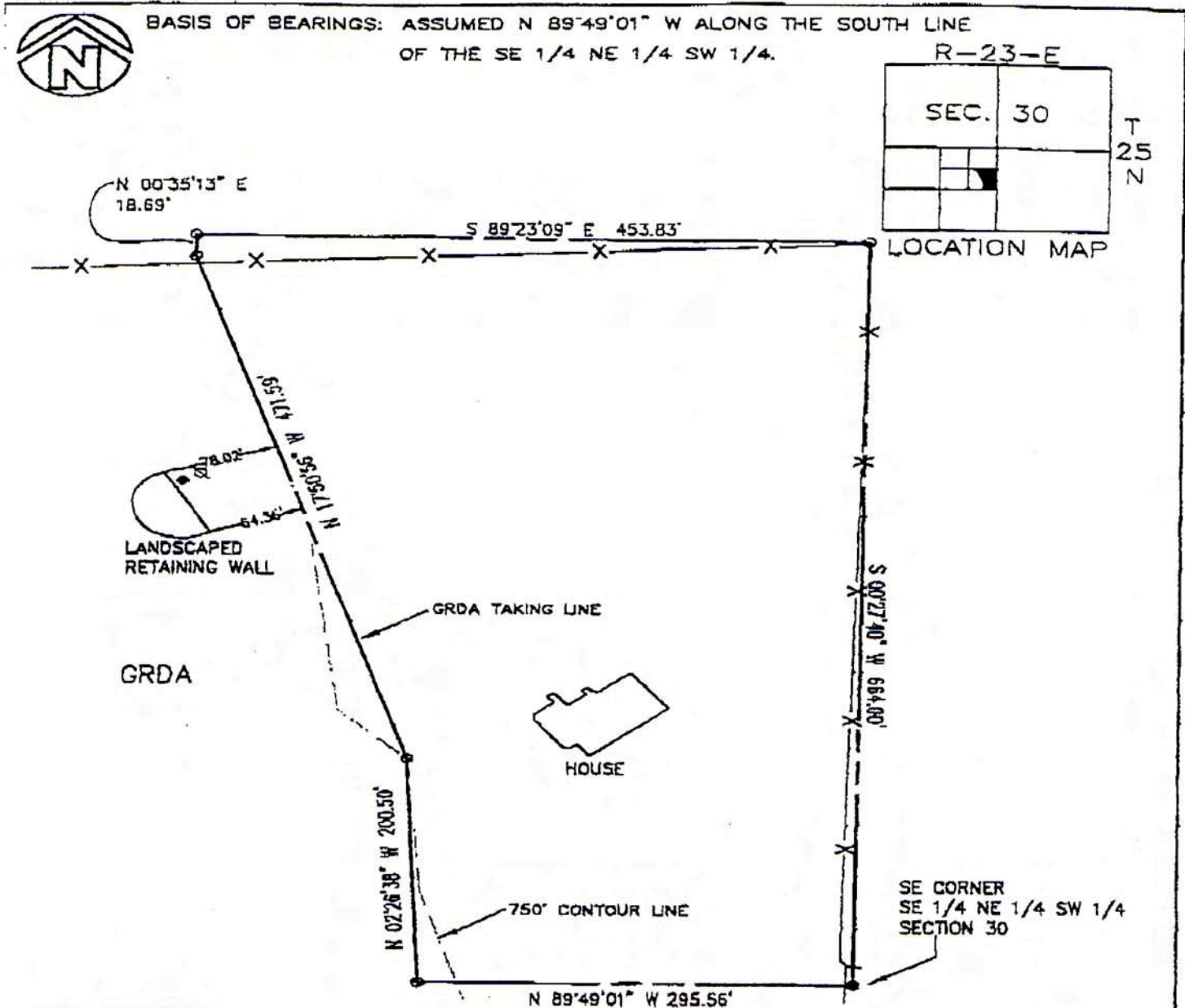
Example 1.F



5th dock north of Clearwater Bay Marina on East Shore

Courtesy of The Grand Chartbook, 2004 Technical Chartbook Services, LLC.

Example 1.G Survey



LEGAL DESCRIPTION

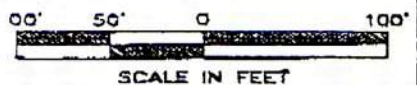
THE SE 1/4 OF THE NE 1/4 OF THE SW 1/4 OF SECTION 30, TOWNSHIP 25 NORTH, RANGE 23 EAST, DELAWARE COUNTY, OKLAHOMA. LESS AND EXCEPT 4.6 ACRES FOR THE GRAND RIVER DAM AUTHORITY.

LAND SURVEYOR'S DECLARATION:
 THIS PLAT OF SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

Revisions:

LEGEND

- FOUND IRON PIN
- SET 5/8" IRON PIN W/CAP
- ⊙ SET GRDA CAP
- ⊕ POWER POLE
- ◆ YARD HYDRANT
- FENCE



NOTE: Survey must be provided to verify 1) the applicant's property line, and 2) GRDA's property line if applicants property is not adjacent to GRDA property. Survey must be completed and signed by certified land surveyor, licensed to do business in Oklahoma.

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

GRDA Dock Permitting Questionnaire

We are working hard to ensure that our dock permitting process is streamlined, user-friendly, understandable and responsive—but we need your help. As a permit applicant, you are familiar with the process. Please take five minutes to answer the questions below in order to assist us in determining what, if any, changes should be included in the permitting process in the future.

*Kevin Easley, CEO
Grand River Dam Authority*

YES NO 1. Was it clear to you when you planned your dock that an annual GRDA permit was required?

YES NO 2. Were dock permit requirements easily accessible and easily understood?

YES NO 3. Were GRDA personnel responsive and consistent in their answers to your questions?

4. How long did it take you to obtain a permit? _____

YES NO 5. Was a survey required in order to complete your application?

YES NO If so, were you able to obtain the survey in a timely manner?

How much did your survey cost? _____

NEW EXISTING 6. Did you obtain a new survey, or use an existing one?

YES NO 7. Were GRDA requirements and recommendations consistent throughout the process?

If "no," please explain: _____

YES NO 8. Were GRDA personnel courteous and timely in their response to your questions?

If "no," please explain: _____

Name _____

Address _____ City _____ State _____ Zip _____

Thank you for taking time to answer this brief questionnaire. At GRDA, we are working hard to ensure a user-friendly, responsive and uniform process. Your assistance is appreciated. If you have additional comments, please make your comments on an additional sheet of paper.

Return your questionnaire to: **GRDA**
Attention: Community Relations
P.O. Box 409, Vinita, OK 74301





VEGETATION MANAGEMENT APPLICATION PACKET

GRDA Vegetation Management Permitting Process

I. Why Do You Need a Permit?

As a Federal Energy Regulatory Commission (FERC) licensee, the Grand River Dam Authority (GRDA) operates and manages Grand Lake and Lake Hudson in accordance with the terms of its license agreement and the applicable rules and regulations of FERC. These responsibilities include protecting important natural, environmental, cultural, and scenic resources.

GRDA believes the proper stewardship of shoreline vegetation is a critical part of meeting these obligations. Shoreline vegetation acts as a buffer to stabilize shorelines, prevent erosion and protect water quality by filtering and trapping organic and chemical pollutants, and can provide valuable habitat for fish and wildlife. Additionally, shoreline vegetation can have significant recreational and aesthetic value.

In certain areas, proper stewardship dictates that shoreline vegetation should remain undisturbed in order that these valuable resources are not jeopardized. However, strict preservation is not always required to provide sufficient protection and avoid adverse consequences. In fact, certain management practices are often necessary or appropriate and can improve resource quality.

As a result, GRDA has put in place rules and a permitting system called the Vegetation Management Plan or “VMP” that governs what kind of vegetation management activities can take place on the shores of Grand Lake and Lake Hudson. With the exception of certain debris removal, no vegetation management can take place on GRDA lakes without the issuance of an appropriate permit. To be eligible, the applicant must be the owner of property adjacent to GRDA’s boundary, or if the applicant is not the adjacent landowner, he or she must obtain written approval of the proposed activity.

The provisions of the VMP apply only to real property owned by GRDA and do not control the use of privately owned land. The boundary between GRDA and private property is defined by the metes and bounds descriptions of property obtained by GRDA through the exercise of the power of eminent domain, and is not determined by reference to any particular contour elevation. Thus, questions about whether a particular piece of land is subject to the VMP can only be answered after review of a survey conducted by a licensed surveyor.

II. Which Permit is Right for You?

GRDA currently issues two different types of permits under the VMP. Which permit is right for you depends on the type of vegetation management you intend to perform.

The more basic of the two is the Permit to Cut Hazardous Trees. With this permit, you are allowed to remove, prune, or trim hazardous vegetation that which pose a substantial risk to the public, adjacent property, or shoreline structures. While limited in scope, this permit can be obtained with little effort on the part of the applicant – provided the requirements of the law are met.

The other permit offered by GRDA is the Comprehensive Vegetation Management Permit. This is the permit that should be sought if you intend to do anything other than cut hazardous trees. In this program, an applicant develops a site specific vegetation management plan that allows for

management activities that enhance the enjoyment of the shoreline while still protecting our valuable resources.

III. What Factors are Considered When Issuing a Permit?

The purpose of the application process is to determine whether a proposed plan is appropriately suited for its location. In determining whether to grant a permit, the following will be considered and weighed as appropriate:

- Current permitted uses in the surrounding area.
- The aesthetic and biological impacts of pruning or removal on the vegetation.
- The potential for replacement with more desirable vegetation.
- The potential impacts on the aesthetic quality of the surrounding area, with consideration given to the views from the land and from the water.
- Potential environmental impacts on soils, shoreline/slope stability, water quality, and wildlife habitat.
- Special consideration for unique varieties, vegetation of great age, rare vegetation, or vegetation of horticultural or historical significance.
- Special consideration for native vegetation in undeveloped landscapes.

IV. Other Permits That May Be Required

Grand Lake's shoreline is managed by the Grand River Dam Authority (GRDA) and the US Army Corps of Engineers (USACE). The Corps of Engineers may have additional rules applicable to this vegetation management permit. The flowage easement of Grand Lake falls under the jurisdiction of the Corps of Engineers. Thus, any management activities taking place within the flowage easement shall require a letter of approval from the Corps of Engineers before final approval can be issued by GRDA.

To learn more about what type of vegetation management activities are allowed on GRDA lakes, please read the Vegetation Management Plan Rules contained in this packet.

TITLE 300. GRAND RIVER DAM AUTHORITY
CHAPTER 35. LAKE RULES
SUBCHAPTER 27. VEGETATION MANAGEMENT PLAN

300:35-27-1. Scope and intent

Shoreline vegetation protects and preserves a healthy vegetative buffer along the shoreline to maintain and enhance the natural and aesthetic resources of the GRDA lakes. Vegetation can help stabilize the shoreline, prevent erosion, and protect water quality. A natural vegetation buffer improves water quality by filtering and trapping organics and chemical pollutants. A vegetative buffer can enhance the natural appearance of the shoreline. These rules provide the objectives for maintaining GRDA Project Land.

300:35-27-2. Applicability

- (a) This subchapter governs vegetation management activity on GRDA Project Land only, and is not applicable on land not owned by GRDA or GRDA owned land that is not Project Land. "Project Land" means the land and other natural resources owned by GRDA that fall within the project boundary identified in the FERC licenses for the Pensacola Project, the Markham Ferry Project, and the W.R. Holway Project.
- (b) Except as otherwise provided for in these rules, no person may engage in any vegetation management activity on GRDA Project Land without first obtaining a permit from GRDA. "Vegetation Management Activity" means any activity that results in or is intended to result in the alteration of the existing physical landscape of Project Land. It includes the trimming, cutting, pruning, mowing, planting or removal of any tree, shrub or other vegetation.
- (c) Floating debris, driftwood, downed limbs/branches, litter, and trash may be removed from GRDA Project Land at any time and does not require GRDA approval, provided the method of removal complies with these rules.
- (d) This subchapter does not apply to utility providers possessing an easement on Project Land. "Utility providers" includes, but is not limited to, public service companies, municipal utilities, electric companies and cooperatives, telecommunication companies, and rural water districts.

300:35-27-3. Permits

- (a) Individuals or entities wishing to engage in a Vegetation Management Activity are required to apply for and obtain a permit from the GRDA Office of Ecosystems Management before conducting any such activities.

- (b) In order to be eligible to apply for a permit, an individual or entity must be the owner of the land adjacent to the GRDA land for which the permit is sought. If an applicant is not the adjacent landowner, the landowner must consent to the application.
- (c) GRDA will consider applications to allow the removal of trees, shrubs, and vegetation for certain conditions and purposes including:
 - (1) Hazardous trees which pose substantial risk to the public, adjacent property, or properly permitted structures on Project Land.
 - (2) Trees, shrubs, and vegetation which are dead, dying, or diseased.
 - (3) Trees, shrubs, and vegetation considered to be an invasive or noxious species by the Office of Ecosystems Management.
 - (4) Trees, shrubs, and vegetation which may contribute to unsafe conditions by creating visibility problems (sight line) near waterways, roadways, trails, paths, or other access points.
 - (5) Trees that are crowded from natural competition or that were overplanted may be selectively removed to maintain spacing for optimal tree growth and function.
 - (6) Trees, shrubs, and vegetation may be selectively removed to create and maintain an access corridor between an adjacent landowner's property and the shoreline. Corridors must consist of natural materials such as native grass, wood chips, or gravel/crushed rock. Placement of such must not involve earth moving or soil disturbance and must minimize ground disturbance and vegetation removal.
 - (7) Trees, shrubs, and vegetation may be selectively removed when necessary to facilitate another permitted use of Project Land.
 - (8) Trees, shrubs, and vegetation may be selectively removed for the creation and/or maintenance of a manicured lawn or for general landscaping purposes.
- (d) GRDA will consider applications to allow the pruning or trimming of trees, shrubs, and vegetation for certain conditions and purposes including:
 - (1) Hazardous sections which pose substantial risk to the public, adjacent property, or properly permitted structures on Project Land.
 - (2) Dead, dying, or diseased sections to improve appearance and health.
 - (3) Pruning of trees for crown cleaning, crown thinning, and crown restoration.
 - (4) Pruning of trees, shrubs and vegetation to enhance the view of the lake.
 - (5) Pruning or trimming of trees, shrubs and vegetation for the creation and/or maintenance of a manicured lawn or for general landscaping purposes.
- (e) GRDA will consider applications to allow for other Vegetation Management Activities including:
 - (1) Landscape plantings.
 - (2) Removal or pruning for public utility easements.
 - (3) Planting, removal, or pruning for shoreline stabilization purposes.
- (f) In determining whether to grant a permit, the following will be considered and weighed as appropriate:

- (1) Current permitted uses in the surrounding area.
 - (2) The aesthetic and biological impacts of pruning or removal on the vegetation.
 - (3) The potential for replacement with more desirable vegetation.
 - (4) The potential impacts on the aesthetic quality of the surrounding area, with consideration given to the views from the land and from the water.
 - (5) Potential environmental impacts on soils, shoreline/slope stability, water quality, and wildlife habitat.
 - (6) Special consideration for unique varieties, vegetation of great age, rare vegetation, or vegetation of horticultural or historical significance.
 - (7) Special consideration for native vegetation in undeveloped landscapes.
- (g) Permit applications shall be subject to the following actions:
- (1) Approved as submitted.
 - (2) Approved with modifications/conditions. Examples of modifications or conditions that may be placed on a permit include limiting the allowed activities, requiring activities be performed in a specific manner to minimize impact, and requiring mitigation or other enhancement measures.
 - (3) Rejected.
- (h) Permits shall be valid for one year from the date of issuance and all Vegetation Management Activity authorized must be completed within that period.
- (i) No permit shall be required for a utility provider possessing an easement on Project Land to perform Vegetation Management Activities necessary to exercise its rights pursuant to that easement.

300:35-27-4. Vegetation management

- (a) The following acts are prohibited on GRDA Project Land:
- (1) Herbicides shall not be used for control/removal of vegetation.
 - (2) Pesticides shall not be applied on GRDA land.
 - (3) The sale of any tree or other vegetation that is removed or cut is prohibited.
 - (4) Fertilizers shall not be applied on GRDA land.
 - (5) Vegetable gardens are prohibited on GRDA land.
 - (6) The introduction or planting of invasive plant species is prohibited on GRDA Project Lands.
 - (7) Any Vegetation Management Activity that results in significant soil disturbance is prohibited.
- (b) Machinery or equipment may be used to accomplish a permitted Vegetation Management Activity, subject to the following:

- (1) Unless prohibited by GRDA, the following may be used in the performance of permitted activities:
 - (A) Hand-held tools including chainsaws and brush cutters.
 - (B) Mechanized equipment with a maximum power output not greater than 30 horsepower (hp), provided the use does not result in the unauthorized movement of soil, rocks, or existing live vegetation.
- (2) The use of machinery with a maximum power output greater than 30 hp may be allowed with prior express approval from GRDA.

300:35-27-5. Waivers

Since every possible situation cannot be anticipated, GRDA reserves the absolute discretion to make appropriate exceptions or modifications to the Vegetation Management Plan and the requirements of same. GRDA may impose additional requirements, including the requirements that the permit holder provide a survey to verify the permitted activity was completed in conformance with GRDA requirements.

300:35-27-6. FERC approval

In accordance with its licenses with the Federal Energy Regulatory Commission (FERC), GRDA may only permit incidental vegetation disturbance and removal. Therefore, in certain instances an application for a permit to remove vegetation must be approved by both GRDA and FERC. GRDA reserves the right to request FERC to approve any application for a permit.

300:35-27-7. Penalties

After notice and an opportunity to be heard in accordance with Subchapter 21 herein, a permit issued pursuant to these rules may be suspended or revoked by GRDA upon a finding that the permit holder has violated any rule provided for herein. Additionally, the holder of the permit may be assessed costs which may include expenses necessary for the reclamation, restoration, and/or clean-up of GRDA land and waters.

300:35-27-8. General permits for natural disasters and other emergencies

In the event a natural disaster or other emergency situation causes significant vegetation damage or debris accumulation within the project boundary to the extent that site specific permitting is impractical or would result in undue delay, the General Manager may issue a general vegetation permit governing all management activities within an affected area in lieu of requiring site specific permits. A general permit shall clearly identify the scope of allowed activities, the areas in which the permit is applicable, and the period of time for which the permit is valid.

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Office of Ecosystems Management,
918-782-3382, P.O. Box 70, Langley, OK 74350

Application for Permit to Cut Hazardous Trees

FOR GRDA USE ONLY:		UTM Coordinate		
Reservoir	GRDA Map & Tract Number	x	y	Permit Number

NAME: _____

MAILING ADDRESS: _____

LAKE ADDRESS: _____ City State Zip

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

LOCATION OF PROPERTY: Lake _____ Arm/Cove/Area _____

DRIVING DIRECTIONS by land: _____

LEGAL DESCRIPTION of PROPERTY: County _____
Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

TO THE GRAND RIVER DAM AUTHORITY, VINITA, OKLAHOMA:

I hereby make application for a Permit to Cut Hazardous Tree(s) upon the shorelands of GRDA, subject to the terms and conditions below, and hereby agree to be bound by said terms and conditions:

Applicant agrees to abide by the Rules and Regulations Governing the Use of the Shorelands and Waters of GRDA, which are incorporated and made a part of this Agreement.

Only hazardous trees that have been approved by an Ecosystem's Compliance Officer may be cut. Applicant agrees to notify the GRDA Office of Ecosystems Management when said work is completed so that the same may be inspected.

Upon receipt of application fee of \$50.00 all work is to be performed within one year from the date of this permit. Applicant's Permit may be revoked at any time by GRDA for any violation of GRDA's regulations. Applicant will not be entitled to any unused portion of fees that may have been collected by GRDA

Applicant agrees that said project shall be operated at his own risk, and GRDA is hereby released from any and all claims for injuries or damages incurred by Applicant. Applicant agrees he will indemnify and save harmless GRDA against any and all claims for damages to property or injuries received by anyone as a direct or indirect result from said project upon GRDA's land arising either from alleged or in fact negligence of Applicant. Applicant further agrees to defend any and all suits filed or prosecuted against GRDA, and to pay any and all judgments, together with court costs, attorney fees and all other expenses of defending such suits.

Applicant agrees to post signs on property where development occurs and that the signs are located in such a way that they can be seen from the water. (These signs will be provided by GRDA's Office of Ecosystems Management)._____ (Please initial)

I verify that I have read the above and foregoing, together with the Rules and Regulations mentioned herein, and I fully understand them and am aware of their contents.

Date

Signature of Applicant

APPROVAL FOR PERMIT TO CLEAN UP/CLEAR SHORELINE/CUT TREES

The above application is hereby approved and a Permit granted, all in accordance with and subject to the conditions contained in the Application and the Rules and Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority.

Date

Ecosystems Compliance Officer

Date

Office of Ecosystems Management

Land Owner Permission Form

FOR GRDA USE ONLY:

Reservoir

GRDA Map & Tract Number

x

y

Permit Number

TO THE GRAND RIVER DAM AUTHORITY:

I/We, the undersigned, _____,
 whose mailing address is _____,
 being the owner(s) of the lakefront property on _____ Lake, hereby state
 that I/we am aware of the fact that _____ intends to
 or has heretofore filed with GRDA an application to conduct vegetation management activities in
 front of my property; and I/we hereby state that I/we have no objection to this proposed action;
 and, further, that I/we have no objection to this statement being attached as an exhibit to the
 above-named individual's application for GRDA approval.

Dated this _____ day of _____, 20_____.

 Abutting Landowner

 Abutting Landowner

Vegetation Management Permit Checklist

All applications submitted must include all of the following or they will be returned to the applicant to be resubmitted with the necessary paperwork. It is the responsibility of the applicant to furnish the paper work. No vegetation management permit can be processed without the following information:

1. Completed Application Form. If the applicant is seeking a Comprehensive Vegetation Management Permit, the application form must include: Sketch of Existing Vegetation (Page 5) and Sketch of Proposed Vegetation Management Activity (Page 7). Examples of such drawings can be found on page 4 and page 6 of application packet.
2. Driving directions by both land (Example 1) and water (Example 2).
3. Evidence of land ownership as filed of record in the County Clerk's Office (Example 3)
4. Land Owner Permission Form if applicant is not the owner of the land adjacent to the shoreline for which the permit is sought. (This form is included in the Application Packet.) Additionally, evidence of land ownership as filed of record in the County Clerk's Office is required.
5. A Survey (Example 4) must be provided to verify the applicant's property line. Survey must be completed and signed by certified land surveyor, licensed to do business in Oklahoma. The applicant need not have a new survey complete if an old survey clearly indicates the GRDA property line or if the legal description of a previous owner's deed of conveyance uses the GRDA property line as a point of reference. GRDA reserves the right to require a new survey if justified by the circumstances.
6. Payment of \$50.00 permit fee.
7. If applicable, an approval letter from the Corps of Engineers for any management practices that will occur within the flowage easement.

Application for Comprehensive Vegetation Management Permit

FOR GRDA USE ONLY:

Reservoir _____

GRDA Map & Tract Number _____

x _____

y _____

Permit Number _____

I. APPLICANT INFORMATION

NAME: _____

MAILING ADDRESS: _____
City State Zip

LAKE ADDRESS: _____
City State Zip

PHONE: Home: _____ Business: _____ Cell: _____ Lake Phone No. _____

EMAIL: _____

II. PROPERTY INFORMATION

LOCATION OF PROPERTY: Lake: _____ Arm/Cove/Area: _____

LEGAL DESCRIPTION: County _____ Sec _____, T _____ N, R _____ E

Subdivision _____ Blk _____ Lot _____

Applicant states that he is the owner of the land adjacent to the shoreline for which this vegetation management permit is sought. (Attach documentation to application.)

Applicant states that he is NOT the owner of the land adjacent to the shoreline for which this vegetation management permit is sought and that the person identified below is the landowner. Further, applicant states that he has provided the landowner with a completed copy of this application and that the landowner has indicated his consent to the same by executing the attached Permission Form. (Attach documentation to application.)

NAME: _____ PHONE: _____

MAILING ADDRESS: _____
City State Zip

III. RESPONSIBLE PARTY FOR VEGETATION MANAGEMENT ACTIVITY:

Owner

Contractor, if checked, please provide contact information below:

Other _____

IV. EXISTING SHORELINE RESOURCE & USE INVENTORY

A. Shoreline Geometry and Topography

1. Length of shoreline in feet: _____ 2. Area of GRDA shoreline in square feet: _____

3. Slope of shoreline: Steep Slope- >25% Moderate Slope-11-25% Mild Slope-0-10%

B. Existing Vegetation

1. Describe the types, quantities, and condition of the existing vegetation on the GRDA shoreline.

2. Describe the types, quantities, and condition of the existing vegetation on the owner's property.

C. Existing Uses

1. a). Indicate any of the following that currently exist in the area being considered for permitting.

Commercial dock	Retaining wall	Breakwater
Residential dock	Boat ramp	Other: _____

b). Indicate any of the following that are planned as a part of this application.

Note: The activities listed below may require additional permits from GRDA and/or other agencies (e.g, Corps Engineers) and are not covered under this permit.

Commercial dock	Retaining wall	Breakwater
Residential dock	Boat ramp	Other: _____

2. Primary use of owner's property:

Commercial	Residential	Undeveloped
Other: _____		

3. Land uses by surrounding owners:

Commercial	Residential	Undeveloped
Other: _____		

A. Activity Types and Objectives

1. Indicate any of the following activity types that are proposed in the plan:

- | | | |
|--------------------|---------------|--------------------------|
| Tree Removal | Shrub Removal | Other Vegetation Removal |
| Tree Pruning | Shrub Pruning | Mowing, Weed-eating |
| Landscape planting | | |

2. Indicate which of the following are purposes for or conditions addressed by the plan:

- Hazardous conditions which pose substantial risk
- Invasive or noxious species
- Dead, dying, or diseased vegetation
- Unsafe conditions on paths, roads, or waterways
- Overcrowding that results in diminished growth and function
- Crown cleaning, thinning, or restoration
- Enhancement of lake view
- Creation/maintenance of shoreline access corridor
- Creation/maintenance of a manicured lawn
- General landscaping

3. If the plan includes the creation/maintenance of a shoreline access corridor:

- a. What is the width of the corridor? _____
- b. Which of the following material, if any, will be used for the pathway?

Native grass	Wood chips	Crushed rock/gravel
--------------	------------	---------------------
- c. Do any of the above activities fall within the US Army Corps of Engineers Flowage Easement? If yes, applicant must seek pre-approval from the Corps and documentation of approval must be submitted with this permit.

4. If the plan includes a manicured lawn, list the type of grass:

- | | | | |
|---------|--------|--------|-------------|
| Bermuda | Fescue | Zoysia | Other _____ |
|---------|--------|--------|-------------|

5. If the plan includes landscape plantings, list the variety, size, and quantity of plantings:

6. List any machinery with a maximum power output greater than 30 hp that will be used:

B. Itemized Management Request

In the tables below, itemize the amount of vegetation you propose to remove, prune, or trim according to the reason for the management activity.

Tree Removal Request		Number of Trees	
Size of Tree		0-3'	> 3'
Reason for Removal		-----	-----
Hazardous			
Dead, dying, or diseased			
Invasive or noxious species			
Unsafe conditions			
Overcrowded			
Necessary to facilitate another permitted use			
Create an access corridor			
Create/maintain a manicured lawn			
General landscaping purposes			
Total number of trees to be removed			

Tree Pruning Request		Number of Limbs	
Size of Limbs		0-3'	> 3'
Reason for Pruning or Trimming		-----	-----
Hazardous			
dead, dying, or diseased			
Invasive or noxious species			
Unsafe conditions			
Overcrowded			
Necessary to facilitate another permitted use			
Create an access corridor			
Create/maintain a manicured lawn			
General landscaping purposes			
Total number of trees to be pruned or trimmed			

Shrub Removal Request		
Reason for Removal		No. of Shrubs
Hazardous		
Dead, dying, or diseased		
Crown maintenance		
Unsafe conditions		
Overcrowding		
Enhance view of the lake		
Necessary to facilitate another permitted use		
Create an access corridor		
Create/maintain a manicured lawn		
General landscaping purposes		
Total number of shrubs to be removed		

B. Itemized Management Request, Cont'd.....

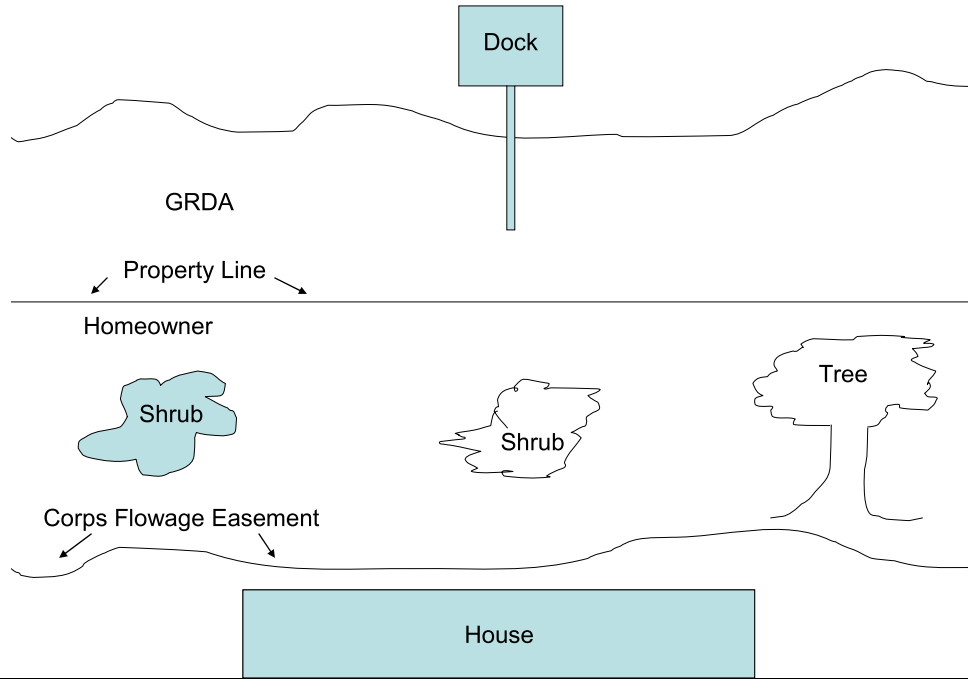
Shrub Pruning Request	
Reason for Pruning/Trimming	No. of Shrubs
Hazardous	
Dead, dying, or diseased	
Crown maintenance	
Unsafe conditions	
Overcrowding	
Enhance view of the lake	
Necessary to facilitate another permitted use	
Create an access corridor	
Create/maintain a manicured lawn	
General landscaping purposes	
Total number of shrubs to be pruned or trimmed	

Other Vegetation Removal Request	
Reason for Pruning/Trimming	Area in square feet
Hazardous	
Dead, dying, or diseased	
Unsafe conditions	
Enhance view of the lake	
Necessary to facilitate another permitted use	
Create an access corridor	
Create/maintain a manicured lawn	
General landscaping purposes	
Total amount of vegetation to be removed	

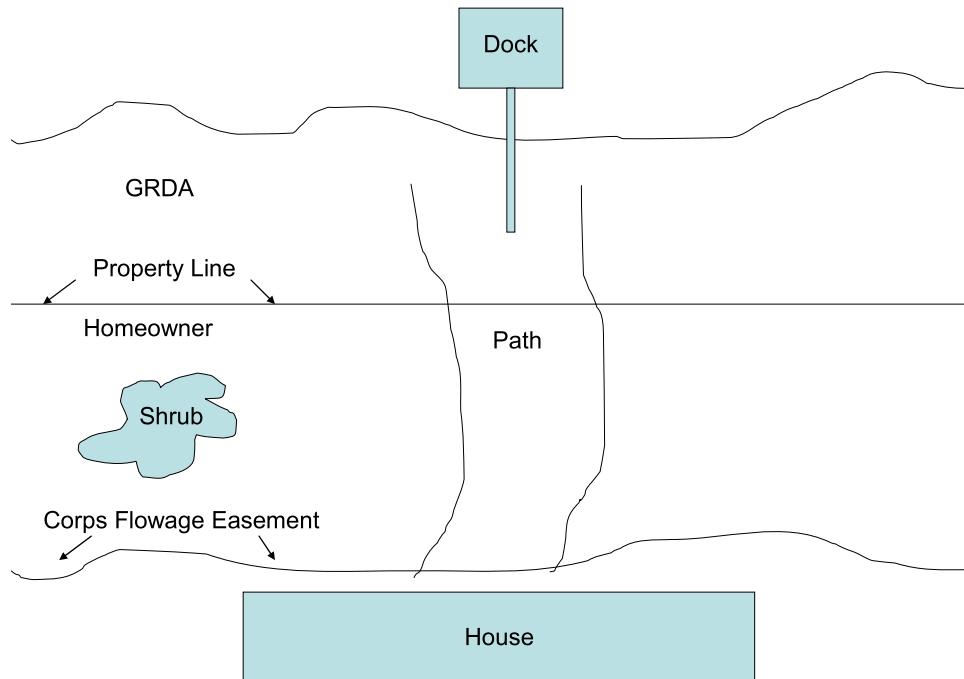
Mowing or Weed-eating	
Reason for Pruning/Trimming	Area in square feet
Hazardous	
Dead, dying, or diseased	
Unsafe conditions	
Enhance view of the lake	
Necessary to facilitate another permitted use	
Create an access corridor	
Create/maintain a manicured lawn	
General landscaping purposes	
Total amount of vegetation to be trimmed	

EXAMPLE: SKETCH OF EXISTING VEGETATION AND PROPOSED VEGETATION MANAGEMENT ACTIVITY

EXISTING:



PROPOSED:



1.) Removed Tree

2.) Removed Shrub

3.) Added Path from House to Dock

**SKETCH OF EXISTING VEGETATION AND
PROPOSED VEGETATION MANAGEMENT ACTIVITY**

EXISTING:

PROPOSED:

TO THE GRAND RIVER DAM AUTHORITY:

I hereby make application for a Vegetation Management Permit for the described activities and objectives upon the shorelands of GRDA, subject to the terms and conditions below, and hereby agree to be bound by said terms and conditions:

Applicant understands that GRDA may have to obtain the approval of the Federal Energy Regulatory Commission (FERC) BEFORE beginning this project, and agrees to provide appropriate information and to abide by any Order issued by FERC.

Applicant agrees to abide by the Rules and Regulations Governing the Use of Shorelands and Waters of GRDA, which are incorporated and made a part of this Agreement. The complete set of Rules and Regulations can be found on GRDA's website, www.grda.com, or they can be picked up at the Lake Patrol Headquarters in Langley, Oklahoma, or at the Administration Headquarters in Vinita, Oklahoma. They can also be found in OAC:300-35-27.

Applicant understands that he may only conduct such vegetation management activities as have been expressly approved by GRDA. **Applicant may not rely upon oral statements made by GRDA personnel. Only written statements, agreements, or approvals signed by authorized personnel shall be considered the official statement, agreement, or acknowledgement of GRDA.**

Applicant understands all work is to be performed within one year from the date of this Permit. Applicant agrees to notify the GRDA Department of Ecosystems Management when said work is completed so that the same may be inspected.

Applicant agrees to pay a fee of \$50.00 per permit.

Applicant agrees that said project shall be operated at his own risk, and GRDA is hereby released from any and all claims for injuries or damages incurred by Applicant. Applicant agrees he will indemnify and save harmless GRDA against any and all claims for damages to property or injuries received by anyone as a direct or indirect result from said project upon GRDA's land arising either from the alleged or in fact negligence of Applicant. Applicant further agrees to defend any and all suits filed or prosecuted against GRDA, and to pay any and all judgments, together with court costs, attorney fees and all other expenses of defending such suits.

I verify that I have read the above and foregoing, together with the Rules and Regulations mentioned herein, and I fully understand them and am aware of their contents.

Date

Signature of Applicant

APPROVAL FOR COMPREHENSIVE VEGETATION MANAGEMENT PLAN

The above application is hereby **APPROVED AS SUBMITTED** and a Permit granted, all in accordance with and subject to the conditions contained in the application and the Rules and Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority.

Date

Ecosystem Compliance Officer

Date

Ecosystems Management



**GRDA
DREDGING
APPLICATION PACKET**

Grand River Dam Authority

An agency of the state of Oklahoma.

Fully Supported by customer revenues instead of taxes.

Office of Ecosystems Management
918-256-5545, P.O. Box 70, Langley, OK 74350

Before You Dredge...

- You must allow yourself plenty of time.
- It is very important that you have completed the following procedure.

NOTE: Dredging is not allowed April 1st - July 31st because of fish spawning.

- Call the GRDA's Office of Ecosystems Management at (918) 256-5545 x4523 and request your dredging application. The application can also be found online at **www.grda.com**.

Application packet requirements include the following:

- 1.) GRDA's Dredging Application
- 2.) U.S. Army Corps of Engineers (USACE) 404 Permit Application
- 3.) Wetland Delineation
- 4.) Heavy Metals Analysis
- 5.) \$500 application fee

Mail the application packet to:

GRDA Office of Ecosystems Management
PO Box 70
Langley, OK 74350

Or you can drop it off at the Lake Patrol Office at Pensacola Dam.

- Please be patient, GRDA or the USACE may have further questions for you. The review process could take you up to a year or more to complete.

Upon receipt of GRDA's permit, dredging may begin.

Grand River Dam Authority dams and lakes are licensed by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act. These licenses require that all dredging exceeding 2,000 cubic yards be approved by FERC and GRDA is responsible for compliance with this requirement. Also, the USACE administers Section 404 of the Clean Water Act. This federal law prohibits discharge of dredged or fill materials into U.S. waters without a permit from the USACE. And finally, the Oklahoma State Historic Preservation Office (SHPO) and the Oklahoma Archeological Survey (OAS) must know about dredging prior to its start so that they can protect any historic sites and prehistoric artifacts.

Questions:

Call the GRDA Office of Ecosystems Management: (918) 256-5545 x4523

Call the U.S. Army Corps of Engineers Regulatory Branch: (918) 669-7366

Dredging and Excavation Policy

All excavation and dredging activities on GRDA-owned property require a permit from GRDA. The USACE may also require a permit for excavation and dredging activities. Additionally, FERC must approve all dredging activities on GRDA waters requiring the removal of more than 2,000 cubic yards of material.

If other regulatory agencies require permit application submittal and review, GRDA requires proof that the project proponent has received all other permits, prior to issuing a GRDA permit.

In an effort to protect Project resources and adequately review all dredging applications, GRDA requires a wetland delineation study conducted by a GRDA approved wetland delineation specialist using the Army Corps of Engineers wetland delineation guidelines in any locations other than open water dredging.

All new dredging activities will require sediment testing to determine if dredging may displace contaminants. Specifically, sediment samples shall be tested for the presence of heavy metals including Cadmium, Chromium, Lead, and Zinc. Detection of hazardous materials during testing may lead to a requirement that the project either be abandoned or the project proponent provide a dredging management plan to GRDA identifying how materials will be removed in compliance with the Oklahoma Department of Environmental Quality (ODEQ) standards.

GRDA will require dredging applicants to contract with GRDA approved personnel to collect sediment samples according to industry best practices. Four sediment cores per 2000 cubic yards of dredged material will be required and should be evenly distributed across the proposed dredging site.

Depth of each core will be recorded and reasonable efforts should be made to core a depth of 5-foot. Each core will be homogenized separately and a composite of the homogenized cores will be submitted as an individual sample for metals and particle size analysis. Sediment samples will be submitted to the ODEQ's laboratory for metals analysis, and to a United States Fish and Wildlife Service approved lab for particle size analysis prior to issuing a permit.

Test results will be provided to the resource agencies for a 30- day comment period and GRDA will review agency comments and compare the results with published assessment guidelines from MacDonald et al. (2000). Test results exceeding the Threshold Effect Concentration's (TEC; i.e. concentrations predicted to be non toxic if the concentration is lower than the corresponding TEC) will be submitted to FERC for final approval.

GRDA will approve excavation of a boat channel or embayment only when it determines there is no other practicable alternative to achieving sufficient navigable water depth, the action would not substantially influence protected resources. Applicants must be prepared to provide adequate documentation of the necessity of the project as part of any application. Dredging for new or previously authorized uses is seasonally restricted. To avoid potential impact to fish spawning areas, applicants are prohibited from dredging during the spawning season (April 1 - July 31).

GRDA requires notification of project commencement, post-dredging site review, and sign-off by GRDA compliance staff at the completion of the action; Contractors are required to post their permit on site throughout the dredging process.

Spoil material from channel excavations must be placed in accordance with any applicable local, state, and federal regulations at an upland site above the applicable flood plain and off Project lands.

Dredging Application Checklist

A submitted application must include all of the following or the application will be returned to the applicant to be resubmitted with the necessary paperwork. It is the responsibility of the applicant to furnish the paperwork in a timely manner.

- 1.** GRDA's application form, complete with maps, photos, plats, and surveys of the location of the dredging site should be attached to the application (see Pages 6-10, Examples A-E) of this application packet. Additionally, a drawing of the dredged area and approximate volume of dredged material should be attached to the application (see Page 11, Example F of this application packet).
- 2.** A complete US Army Corps of Engineers Clean Water Act 404 Permit Application
- 3.** Wetlands Delineation as previously described on Page 2 of this application packet.
- 4.** Heavy Metals Analysis as previously described on Page 2 of this application packet.
- 5.** \$500 application fee

Application for Permit to Dredge

FOR GRDA USE ONLY:		UTM Coordinate		
Reservoir	GRDA Map & Tract Number	x	y	Permit Number

NAME: _____

MAILING ADDRESS: _____
City State Zip

LAKE ADDRESS: _____
City State Zip

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

LOCATION OF PROPERTY: Lake _____ Arm/Cove/Area _____

DRIVING DIRECTIONS BY LAND: _____

LEGAL DESCRIPTION of PROPERTY: County _____
Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

NAME OF GRDA'S PERMITTED CONTRACTOR: _____

CONTRACTOR PERMIT NUMBER: _____

DESCRIPTION OF DREDGING ACTIVITY:

For what purpose do you want to dredge (be specific): _____

Location of dredging site; including maps, photos, plats, survey's (See Examples A-E) _____

Lake _____ County _____ Section _____ Township _____ North, Range _____ East

Size of area to be dredged and approximate volume of dredged material to be taken (See Example F)

AREA (FEET²) = LENGTH X WIDTH: _____ (Length) X _____ (Width) = _____ (Square Feet)

VOLUME (YARDS³) = LENGTH X WIDTH X DEPTH ÷ 27 = CUBIC YARDS:
_____ (Length) X _____ (Width) X _____ (Depth) ÷ 27 = _____ (Cubic Yards)

Means of dredging (backhoe, dragline, etc.): One-Step Method* Other _____

Dredged material that is removed must be placed above the flowage easement. Please provide the location of where the removed dredged material will be placed. _____

* USACE defines the one-step method as excavating or dredging the material with a type of bucket loader such as a backhoe or tracked excavator. The material must be placed directly into an enclosed truck bed, such as a dump truck, and hauled to an approved disposal site. The material cannot be temporarily sidecast adjacent to the work area anywhere below elevation 757.0 and above the flowage easement and as described in the adjacent landowners abstract or warranty deed. The USACE will consider the property above elevation 757.0 an approved disposal site provided the site does not contain wetlands and the dredged spoil is properly controlled with staked-in-place straw bales, siltation fence, or other appropriate means of containment. Siltation and sedimentation barriers are also appropriate surrounding disturbed area immediately adjacent to the lake to reduce aquatic impacts. Additional reduction of aquatic impacts can be achieved through the installation of a temporary floating turbidity curtain in the lake to isolate the excavation site from surrounding waters.

ATTACH SKETCH, MAP OR DRAWING OF WORK LAYOUT AND DIMENSIONS. ALSO ATTACH A PLAT MAP AND SURVEY OF PROPERTY. (See Pages 6-10, Examples A-E of this application packet.)

Name of abutting landowner(s) (person who owns property in front of where this work is to be done): (If other than applicant, WRITTEN PERMISSION must be submitted.)

Name

Address

I understand that Federal Energy Regulatory Commission (FERC) approval may be required **BEFORE** I may begin this project. I understand and agree that I am responsible for securing a USACE Permit (if applicable) and any other local, state, or federal permits, if any, that may be required.

I am enclosing the sum of Five Hundred Dollars (\$500.00) as the required fee for this application, I understand that said sum shall be retained by GRDA to defray all costs regardless of the disposition of the final inspection. I also understand that the receipt and/or deposit of your cash, check, or money order by GRDA does not constitute the granting or issuance of a permit.

I understand and agree that all dredging and excavation shall be left with gradually sloped sides so as not to change the present contour line by creating any permanent channels above said contour line. Dredged and excavated materials shall be placed on applicant's property above the applicable flowage easement.

I agree to post a sign on property where development occurs and that the sign be visible from the water.

_____ **(Please initial)** These signs will be provided by GRDA's Office of Ecosystems Management.

Date

Signature of Applicant

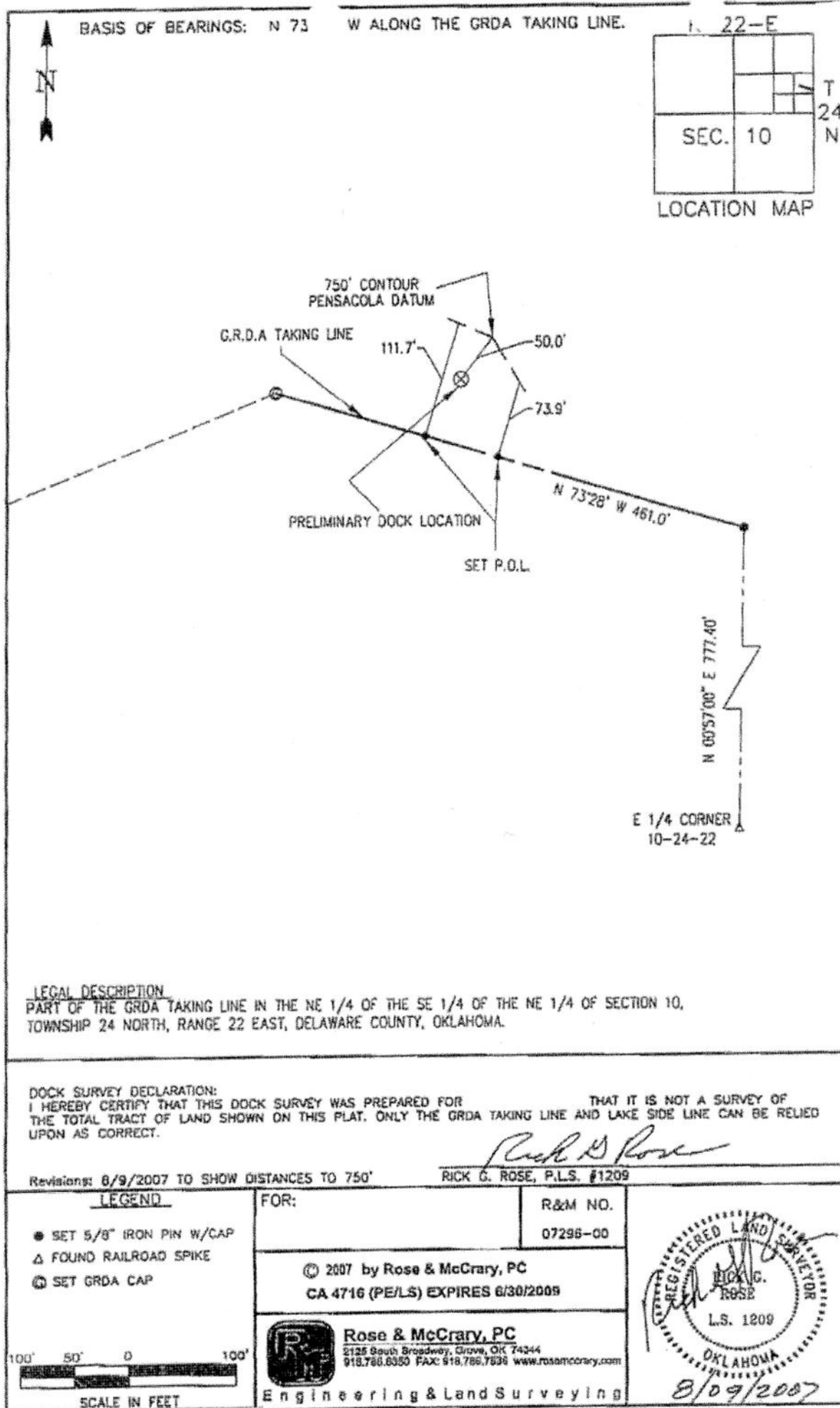
COMPLIANCE STAFF CONSULTATION

I hereby certify that I have consulted with the applicant or his/her representative.

Date

Ecosystems Compliance Staff

Example A Survey



Tax statement sent to:

PSC #80 Box 20871
APO, AP 96367

STATE OF OKLAHOMA
Delaware County
Documentary Stamps: \$ 120.00
**JOINT TENANCY
WARRANTY DEED**
(Individual Form)

Revenue \$120.00

I-2003-011749 Book 1578 Pg 431
09/09/2003 9:21 am Pg 0431-0432
Fee \$ 15.00 Doc \$ 120.00
Carol Fortner - Delaware County Clerk
State of Oklahoma

KNOW ALL MEN BY THESE PRESENTS:

THAT, _____ husband and wife, parties of the first part, in consideration of the sum of ONE DOLLAR and other valuable considerations, in hand paid, the receipt of which is hereby acknowledged, do hereby grant, bargain, sell and convey unto _____ husband and wife, as joint tenants and not as tenants in common, with the right of survivorship, the whole estate to vest in the survivor, parties of the second part, the following described real property and premises situated in Delaware County, State of Oklahoma, to wit:

Lot 1-Revised Commencing at the Northwest corner of Lot 1, Buffalo Shores - Unit II according to the recorded plat thereof; thence N 89° 28' 45" E along the North line of said Lot 1, 20.0 feet to the point of beginning, thence N 89° 28' 45" E., 120.0 feet, thence S 34° 38' W, 399.45 feet to a point on the GRDA taking line, thence following said taking line, S 83° 59' W, 52.0 feet, thence N 84° 14' W, 58.0 feet, thence N 33° 20' E, 392.72 feet to the point of beginning. Revised Lot 1 includes part of Original Lot 1 and a tract in the NE1/4 of Section 13, Township 24 North, Range 23 East, Delaware County, Oklahoma.

See Survey Hereto attached as Exhibit "A" together with all the improvements thereon and the appurtenances thereunto belonging, and warrant the title to the same.

TO HAVE AND TO HOLD said described premises unto the said parties of the second part, as such joint tenants, and to the heirs and assigns of the survivor, forever, free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and incumbrances of whatsoever nature.

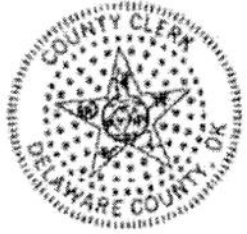
Signed and delivered this 9th day of September, 2003

ACKNOWLEDGEMENT

STATE OF OKLAHOMA
COUNTY OF Delaware

Before me, a Notary Public in and for said County and State, on this 9th day of September, 2003, personally appeared _____ husband and wife to me known to be the identical persons who executed the within and foregoing instrument, and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth. Given under my hand and seal the day and year last above written.

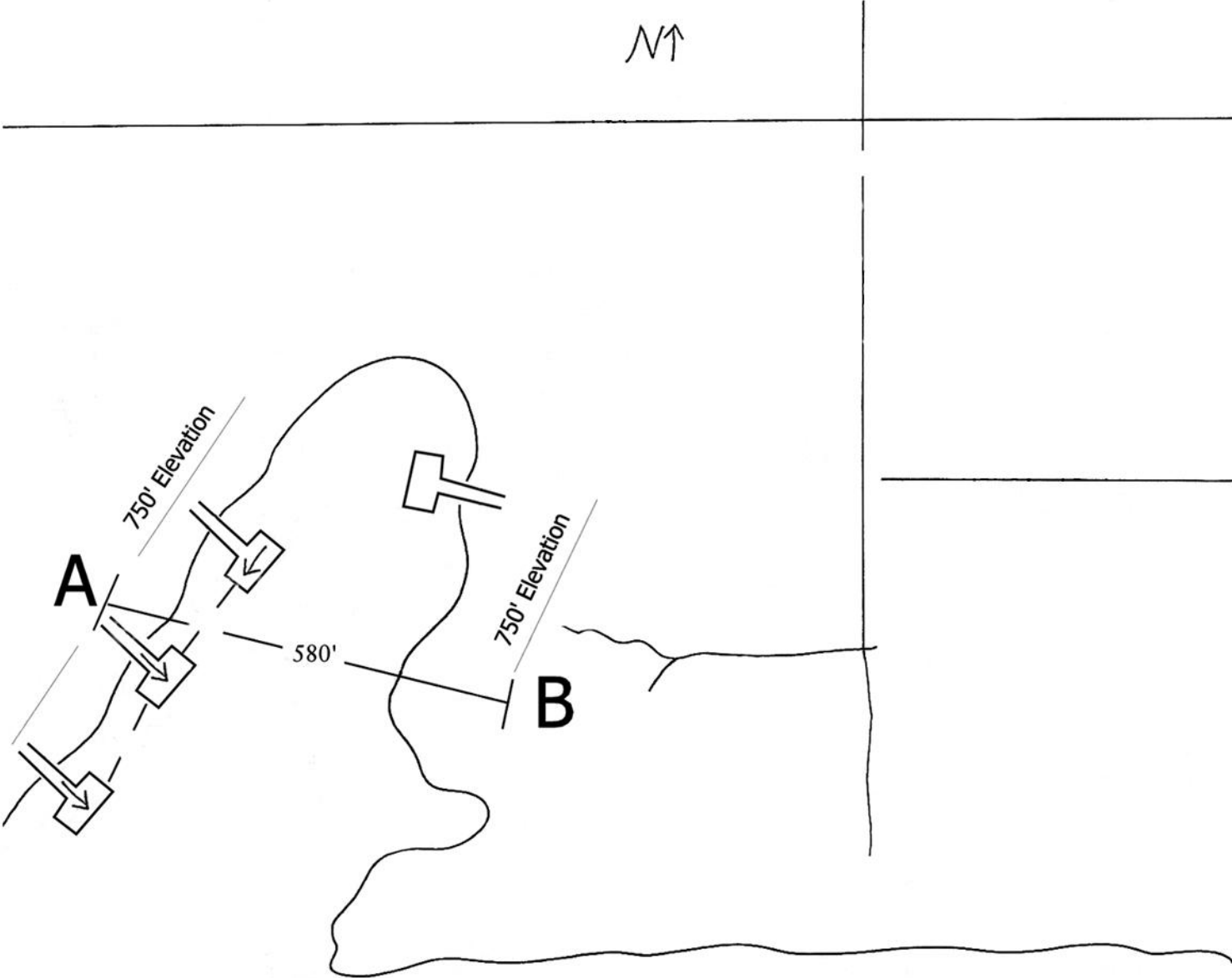
My Commission _____
Notary Public



Grand River Abstract & Title Co.
Jay, Oklahoma

**Example C
Plot Drawing**

N↑



Example D

Driving Directions by Land

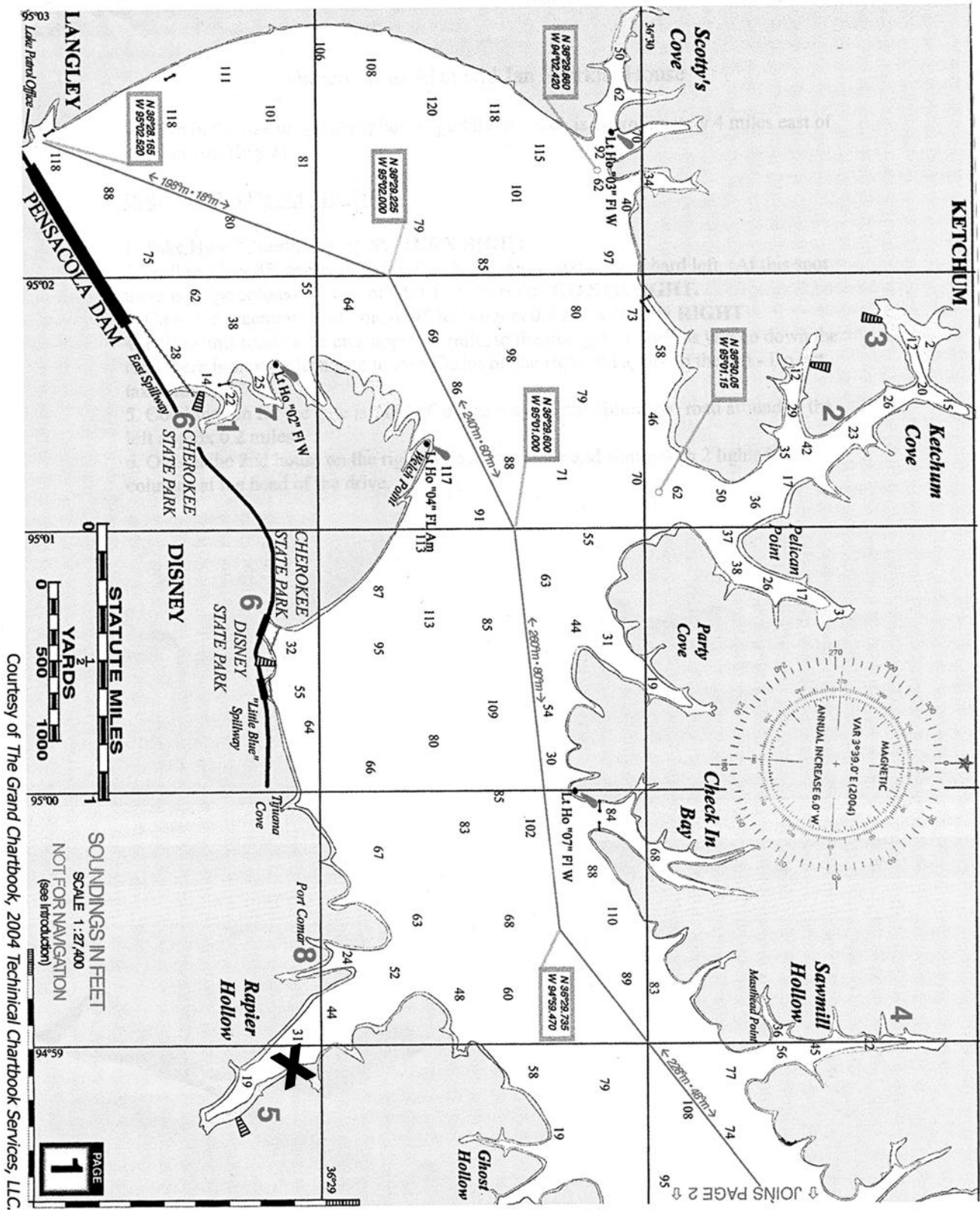
Directions to the Grand House

The Grand House is located in the Sawmill Hollow housing addition which is approximately 4 miles east of Ketchum on Highway 85.

DIRECTIONS FROM THE DAM

1. Take Hwy 82 north to Hwy 85. **TURN RIGHT.**
2. Follow Hwy 85, approx. 4 miles (through Ketchum) until it takes a hard left. **GO STRAIGHT.**
3. Go to the second intersection, 5504 Rd, approx 0.5 miles. **TURN RIGHT.**
4. Follow this road to its end, approx. 1/2 mile. **TURN LEFT.**

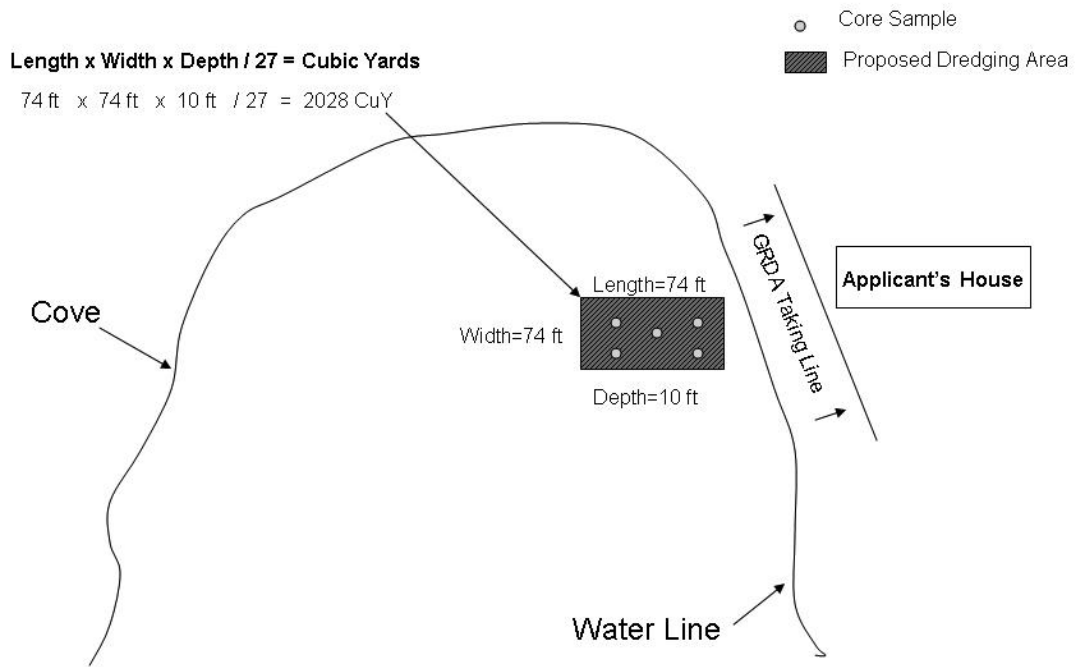
Example E



Courtesy of The Grand Chartbook, 2004 Technical Chartbook Services, LLC.

5th dock north of Clearwater Bay Marina on East Shore

Example: Sketch of Proposed Dredging Area



Applicant's Sketch of Proposed Dredging Area



**GRDA
BREAKWATER
APPLICATION**

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Office of Ecosystems Management,
918-782-3382, P.O. Box 70, Langley, OK 74350

Application for Installing a Breakwater

FOR GRDA USE ONLY:		UTM Coordinate		
_____	_____	_____	_____	_____
Reservoir	GRDA Map & Tract Number	x	y	Permit Number

NAME: _____

MAILING ADDRESS: _____

City State Zip

LAKE ADDRESS: _____

City State Zip

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

LOCATION OF PROPERTY: Lake _____ Arm/Cove/Area _____

DRIVING DIRECTIONS by land: _____

LEGAL DESCRIPTION of PROPERTY: County _____

Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

Please check if Transfer of Ownership

TO THE GRAND RIVER DAM AUTHORITY:

I hereby make application to build a breakwater: (describe the construction of the breakwater)

IMPORTANT: Attach sketch, map or drawing of layout of work and dimensions

Contractor _____

Lake _____ County _____ Section _____ Township _____ Range _____

Definite description of location _____

Dock(s) that breakwater will be protecting _____

Abutting Landowner(s) (person who owns the lake shore in front of which this work is to be done).

If other than applicant, **WRITTEN PERMISSION FROM LANDOWNER MUST BE SUBMITTED**

Name

Address

Breakwaters must be constructed of steel pipe or channel iron with foam flotation consisting of units joined by a common set of cables and chain to insure their structural integrity.

Breakwaters must be anchored in permanent locations and must have proper lighting spaces at 25 ft intervals.

The owner of a breakwater shall be responsible for maintaining it until the permit has been properly assigned to a new owner.

Issuance of a permit for any breakwater, private or commercial, shall be withheld until the applicant has submitted a certificate from an insurance company licensed to do business in Oklahoma, showing evidence of a Comprehensive General Liability Policy with \$100,000.00 combined single limits. The term of such insurance shall be coterminous with the permit.

NOTE: All electrical work must be inspected by an Oklahoma Licensed and Bonded Electrician

Applicant agrees to post sign on property where development occurs and that the sign is located in such a way that it can be seen from the water. _____ (Please initial)

(These signs will be provided by GRDA's Lake Patrol Office)

Date

Applicant's signature

INSPECTION CERTIFICATE

I hereby certify that I have inspected the above proposal and the premises involved, and find that the same should be approved.

Date

Lake Patrol

Date

Ecosystems Compliance Officer

BREAKWATER INSTALLATION PERMIT

The above application is hereby approved and Permit granted all in accordance with and subject to the conditions contained in the application and the Rules and Regulations Governing the Use of Shorelands and Waters of the Grand River Dam Authority.

Date

Office of Ecosystems Management

The fee for a breakwater is \$.06 per square foot. This is an annual fee billed at the same time as the dock fees.



**GRDA
LICENSE TO ENCROACH
APPLICATION PACKET**

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Legal Department,
918-256-5545, P.O. Box 409, Vinita, OK 74301

Application for License to Encroach Upon Lands Owned by GRDA

FOR GRDA USE ONLY:

Reservoir _____

GRDA Map & Tract Number _____

Permit Number _____

**\$50.00 FEE SUBMITTED
WITH APPLICATION?** _____

FULL AND COMPLETE NAME OF APPLICANT(S): _____

(For title purposes, the License should be issued to the individuals named on the Applicant's deed of conveyance)

MAILING ADDRESS: _____

City

State

Zip

PHONE: Home _____ Work _____ Cell _____ Other _____

LEGAL DESCRIPTION OF APPLICANT'S LAND ADJACENT TO ENCROACHMENT ON GRDA PROPERTY:

Section _____, Township _____ N, Range _____ E in _____ County **OR**

Subdivision _____ Lot _____

Block _____ in _____ County, Oklahoma

LAKE ADDRESS: _____

City

State

Zip

TO THE GRAND RIVER DAM AUTHORITY:

I hereby make application for a License to Encroach as follows:

1. Nature of Encroaching Improvement (i.e. house, deck, shed, etc): _____
Applicant should include a drawing and photographs of the encroaching improvement)

2. Encroaching Improvement constructed of: _____

3. Square footage of encroaching improvement: _____

4. Requesting License for _____ years (maximum license is 30 years)

5. Date improvement was built (must be prior to June 1, 2005): _____

6. _____ New License

_____ Transfer of License from _____

(If requesting to transfer License, include copy of existing License as recorded in the land records)

The "Application for License to Encroach" is a two page form, this is page 1 of 2.

TERMS AND CONDITIONS

In consideration of the Grand River Dam Authority granting a License to Encroach to the Applicant, Applicant hereby consents and agrees to the following:

1. Applicant agrees to abide by the provisions of 82 O.S. § 861 *et seq*; the Oklahoma Administrative Code Rules 300:25-1-1 *et seq* and the Rules and Regulations Governing the Use of Shorelands and Waters of GRDA, which are incorporated and made a part of this agreement.
2. Applicant acknowledges that a License to Encroach may be revoked at any time by GRDA.
3. If GRDA does, in fact, cancel said License of Applicant, Applicant shall be wholly responsible for all costs, including, but not limited to, court costs and attorney fees, incurred by the Authority for removal of said structure from GRDA's property.
4. Applicant agrees to maintain the encroaching improvement in a safe and orderly condition and not to enlarge the improvement.
5. Applicant, his agent, representatives or assigns, agree that actions taken on said encroaching improvement or GRDA property shall be at his own risk, and GRDA is hereby released from any and all claims for injuries or damages incurred while on GRDA's premises. Applicant, his heirs, representatives or assigns agree that they will indemnify and save harmless GRDA against any and all claims for damages to property, or injuries received by anyone, as a direct or indirect result from the encroaching improvement upon GRDA's property, arising either from alleged or in fact negligence of Applicant, his agents, representatives, servants or guests; and Applicant further agrees to defend any and all suits filed or prosecuted against GRDA, and to pay any and all judgments, together with court costs, attorney fees and all other expenses of defending such suits.
6. Applicant grants permission to GRDA, through its authorized employees, to physically inspect Applicant's improvement when necessary and reasonable.
7. Applicant agrees to promptly pay the annual fee imposed by GRDA for the privilege of placing and maintaining the improvement. The application fee and first year's annual fee shall be submitted prior to the issuance of said License.

Applicant verifies that he/she has read the above and foregoing provisions, together with the Rules and Regulations and Instructions mentioned herein, and fully understands them, is aware of their contents and agrees to be bound by said terms and conditions.

Date

Signature of Applicant

The completed Application for License to Encroach along with the appraisal (including pictures or diagrams of the encroaching improvement if not contained in the appraisal), and the application fee should be forwarded to the address at the top of this Application.

License to Encroach Application Checklist

All applications submitted must include all of the following or they will be returned to the applicant to be resubmitted with the necessary paperwork. It is the responsibility of the applicant to furnish this paperwork. No dock application can be processed without the following information:

- _____ **1.** Appraisal containing:
 - a.** Valuation of the property upon which the encroaching improvement is located;
 - b.** legal description of property upon which encroachment is located;
Drawing (including measurement) of the encroachment;
 - d.** Photographs of encroachment

 - _____ **2.** Deed evidencing applicant's ownership of property adjacent to the encroaching improvement.

 - _____ **3.** Survey evidencing encroachment (A survey is helpful to determine how much of the encroachment is on GRDA property. Applicant will be notified by GRDA if a new survey is required).

 - _____ **4.** Application fee of \$50.00. Fee must be submitted with Application.

 - _____ **5.** Copy of existing License (only if Applicant is requesting a transfer).
-

Instructions for License to Encroach

A license to encroach must be obtained for improvements built prior to **June 1, 2005** upon property owned by GRDA. The procedure for obtaining a license to encroach is found at 82 O.S. § 874.2 and the Oklahoma Administrative Code Rules 300:25-1-1. The following is a summary of those rules. The applicant should fully review the rules prior to submitting their application. These rules are contained in the Rules and Regulations Governing the Use of Shorelands and Waters of Grand River Dam Authority posted on the GRDA website at www.grda.com.

- 1.** Improvements are buildings, retaining walls, or other permanent or temporary structures or developments located on or attached to GRDA lands.
- 2.** To be eligible for a License, the improvement must be **in existence prior to June 1, 2005**. Further, a License will only be issued to improvements related to residential property.
- 3.** Applicant must be the adjacent landowner to GRDA's property where the encroaching improvement is located.
- 4.** An appraisal by an Oklahoma licensed land appraiser is required.
 - a.** The appraisal should set forth the fair market value of the unimproved land for the area upon which the improvement is encroaching. Fair market value is the price in cash a willing but not obligated tenant would pay, and a willing but not obligated landlord would charge for the same or similar lands for the highest and best use of the property. To determine fair market value, the appraiser shall consider:
 - i.** Present land use;
 - ii.** Amount of GRDA land upon which the improvement is located;
 - iii.** Cash rental price of comparable land; and
 - iv.** The number of years of the license.
 - b.** The appraisal should also include the following documents:
 - i.** Square footage of the encroaching improvement;
 - ii.** Photographs of the encroaching improvement; and
 - iii.** A map showing the location of the property.
- 5.** A license to encroach must be approved by the GRDA Board of Directors.
- 6.** A license to encroach shall not exceed 30 years, may be assigned upon approval by the GRDA Board of Directors, and will transfer to the heirs, legatees and devisees upon the death of the holder.
- 7.** The License does not give the holder a right to increase the encroachment, however, the holder must maintain the existing improvement in a safe manner.
- 8.** Violation of the terms and conditions of the license or the failure to pay any amounts due GRDA shall subject the License holder to legal or administrative action or both.
- 9.** Upon approval by the GRDA Board of Directors, Applicant will be required to submit the first year's annual fee prior to issuance of the License.
- 10.** Transfers of a License will follow the same procedure for a new license, however, Applicant should contact GRDA prior to obtaining a new appraisal or new survey. GRDA may waive said requirements in its discretion related to the transfer of a License.
- 11.** Questions should be addressed to GRDA's legal department at the address above or by phone.



**GRDA
IRRIGATION WATER
APPLICATION**

Grand River Dam Authority

An agency of the state of Oklahoma. Fully Supported by customer revenues instead of taxes.

Legal Department,
918-256-5545, P.O. Box 409, Vinita, OK 74301

Application for Irrigation Water Permit

FOR GRDA USE ONLY:	UTM Coordinate	
_____	_____	_____
Reservoir	GRDA Map & Tract Number	x y Permit Number

NAME: _____

MAILING ADDRESS: _____
City State Zip

LAKE ADDRESS: _____
City State Zip

PHONE: Home _____ Work _____ Cell _____ Lake Phone No. _____

LOCATION OF PROPERTY: Lake _____ Arm/Cove/Area _____

LEGAL DESCRIPTION of PROPERTY: County _____

Sec _____, T _____ N, R _____ E or Subdivision _____ Blk _____ Lot _____

If purchased land from current GRDA water user GIVE NAME _____

TO THE GRAND RIVER DAM AUTHORITY:

Applicant comes now and makes application to the Grand River Dam Authority for a permit to appropriate the waters of Grand River, the lakes formed thereby, and its tributaries for irrigation purposes and to appropriate the waters as described:

1. State the purpose for which the water is to be used:
 - A. Irrigate _____ acres at various seasons throughout the year, totaling not more than 24 inches for each acre irrigated.
 - B. Other _____
2. Manner of taking or diversion and estimated usage: (Attach detailed plans and specifications to application. **NOTE: All electrical work must be inspected by an Oklahoma Licensed and Bonded Electrician**)
 - A. Will diversion be through: pipe, conduit, sprinkling system, or otherwise (Please explain) _____
 - B. Diversion with pump: Size _____ Type _____ Capacity _____ G.P.M. _____ Power _____ H.P. Engine _____
3. Applicant desires a permit for a term or period of: _____
4. If water is to be taken from the Fort Gibson Lake, state if permission has been obtained from the U.S. Army Corps of Engineers to locate and maintain pumping and irrigation equipment on Government owned property. YES NO

Applicant states that if he is granted a permit that he will abide by the Rules and Regulations Governing the Use of Shorelands and Waters of Grand River Dam Authority and will pay the fees and charges as fixed by said Rules and Regulations. Applicant acknowledges that said fees and charges are subject to change and GRDA has the right to terminate this permit for any reason.

Date _____ Signature of Applicant _____

IRRIGATION WATER PERMIT APPROVAL Permit No. _____

This application is hereby approved and the water rights granted, all in accordance with and subject to the Rules and Regulations Governing the Use of Shorelands and Waters of GRDA, and upon the following terms and conditions and payment of fees, to-wit:

1. Term for _____ year(s) OR _____ perpetual.
2. Payment of processing fee of \$100. Processing fee must accompany application.
3. Payment of Annual Usage Fee (\$4.00 /acre foot for Grand Lake; \$3.00 /acre foot for Lake Hudson).
4. This Permit shall not be assigned or transferred without the written consent of GRDA.

Date _____ Assistant Superintendent of Land Management/Water Resources _____

Date _____ Legal Department _____