

**Smith Mountain Pumped Storage Project  
FERC No. 2210**

**Shoreline Management Plan**

**August 29, 2003**

*Prepared by*  
**The Louis Berger Group, Inc.**

*for*  
**American Electric Power**

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## **Glossary**

ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Access Guidelines
AEP	American Electric Power
ALAC	Association of Lake Area Communities
Active Erosion	Areas that are 1) bare and void of vegetation or other stabilizing material, 2) areas that are experiencing undercuts and/or sloughing off of the parent material or 3) areas directly adjacent to the shoreline that have the potential to deposit sediment or soil material into the Lake.
Adjoining Property Owner	An individual, group, or entity that has title to land that abuts the land or lot in question
Base Elevation	Reference elevation representing the 795-contour line National Geodetic Vertical Datum, 1929 (NGVD) for Smith Mountain Lake and the 600-foot contour NGVD for Leesville Lake.
Boat Slip (Slip)	A designated watercraft docking area confined on at least two sides by sections of a dock, pier or piling. One boat slip can accommodate only one boat at a time.
Carrying Capacity	A determination of the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions
Clean Water Act	Federal legislation that, among other things, gives states the authority to certify that projects licensed and approved by federal agencies meet state water quality standards.

Community Dock	A boat dock, pier or boat house containing three or more slips directly related and adjunct to a subdivision, cluster development, condominium, or planned development, owned and/or controlled by the owners of the lots of such subdivision or development, and which may be used adjunct to the use of the individual lots or units within the subdivision or development and which has a commonly owned or shared walkway.
Courtesy Pier	An access dock with no slips for use while launching or retrieving boats.
Cove	An area of a lake that extends away from the main body of the lake, where the area extends at least 50 feet from the main shoreline area.
Dock	A platform extending from a shore over water and supported by piles, pillars or flotation materials, used to secure, protect, and provide access to boats or personal watercraft or for recreation (e.g. fishing, wildlife viewing, etc.).
Dock Easement Line	An easement delimiting the dock construction limits between adjacent parcels as shown on a subdivision plat approved by the municipality and recorded in the appropriate Clerk of the Circuit Court's Office, referenced on a recorded plat or document, or by either extended or actual property lines.
Enclosure	An area of a dock that is surrounded on any part of at least 3 sides (including floor and ceiling areas) by any materials, including but not limited to wood, metal, screen, wire, or fabric.
Extended Property Lines	A linear extension of the property lines shown on county tax maps or on a recorded survey prepared by a Licensed Land Surveyor of those lines landward of the 800-foot contour line projected into project waters for Smith Mountain Lake and the 620-foot contour line projected into project waters for Leesville Lake.

Fairway	An area of open water extending outward from the open end of a boat slip intended to provide navigation room for a boat to exit or enter its moorings. Adjacent docks with opposing slips share the same fairway.
FERC	Federal Energy Regulatory Commission
Footprint	The outer dimensions of a dock's deck area and slip(s)
GIS	Geographic Information System
GPS	Global Positioning System
IMZ	Impact Minimization Zone
Jetty	A structure extended into the lake to influence the current or to protect a harbor, beach, or structure.
Marina	A facility situated on a lakeshore that provides launching and secure moorings for water-borne craft and/or supplies, fuel, and marine equipment sales and repair services
Navigational Lane	The area of water extending upstream and downstream from Hales Ford Bridge that is used for boat travel.
NGVD, 1929	National Geodetic Vertical Datum, 1929
Off-water	An area of land that does not abut the project boundary
On-water	An area of land that abuts the project boundary

Personal Watercraft	A motorboat less than sixteen feet in length which uses an inboard motor powering a jet pump, as its primary motive power and which is designed to be operated by a person sitting, standing, or kneeling on, rather than in the conventional manner of sitting or standing inside, the vessel.
Pier	A platform extending from a shore over water and supported by piles or pillars, used to secure, protect, and provide access to boats or personal watercraft or for recreation (e.g. fishing, wildlife viewing, etc.)
Project Boundary	Reference elevation representing the 800-foot contour NGVD for Smith Mountain Lake and the 620-foot contour NGVD for Leesville Lake, except in those areas defined by survey beyond the referenced contour elevation
Public Use Area	An area or facility that is open to the public with equal and unobstructed use of such facilities to all members of the public without regard to race, color, religious creed or national origin. Such uses may be subject to specific operating hours or a reasonable fee for use.
SCORP	Statewide Comprehensive Outdoor Recreation Plan
Service Dock	A dock that is used to provide services such as gasoline dispensing, boat rental, etc.
Side Set Back	A distance from the dock easement lines in which construction of facilities is not allowed.
SMP	Shoreline Management Plan
SMLA	Smith Mountain Lake Association
Steering Committee	Members of 13 state agencies, counties, chambers of commerce, and homeowners groups who have worked together since May 2001 to help guide the SMP process.
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality

VDGIF	Virginia Department of Game and Inland Fisheries
VDH	Virginia Department of Health
VDHR	Virginia Department of Historic Resources
Virginia Natural Heritage Program	The Natural Heritage Program represents a comprehensive effort to inventory and preserve the animal, plant and natural community resources of the Commonwealth of Virginia and is a part of the VA Department of Conservation and Recreation
Virginia State Historic Preservation Office (VA SHPO)	The State Historic Preservation Office is within the Virginia Department of Historic Resources whose mission is to foster, encourage, and support the stewardship of Virginia's significant historic, architectural, archaeological, and cultural resources.
Watercraft	Any boat, ship, vessel, barge, or other floating craft.
Wetlands (Wetland areas)	Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.
Woody Debris	Trees and woody material that extend from the shoreline into the lake

## **1.0 INTRODUCTION**

### **1.1 Purpose and Authority**

The purpose of the Shoreline Management Plan (SMP) for the Smith Mountain Pumped Storage Project (FERC No. 2210) is to provide guidelines and regulations for shoreline development for Smith Mountain Lake and Leesville Lake. The SMP must also ensure the protection and enhancement of the Project's recreational, environmental, cultural, and scenic resources and the Project's primary function, which is the production of electricity.

American Electric Power (AEP) has the authority to develop a Shoreline Management Plan under its current license approved by the Federal Energy Regulatory Commission (FERC) and in accordance with the Federal Power Act Sections 10(A)(1) and 4(e) (Appendix A). The development of this SMP has been undertaken with the intent of receiving additional authority to permit development within the project boundary from the FERC. Currently, the FERC allows AEP to permit development of docks with no more than 10 slips, shoreline stabilization, and a number of other types of development under Article 41 (Appendix B) of the existing license to operate the project. This authority is granted to AEP provided the proposed use is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. AEP has and continues to work with the 4 counties surrounding Smith Mountain Lake and Leesville Lake, as well as state and federal agencies and non-governmental organizations to coordinate the permitting processes that are currently in place. AEP as part of a steering committee has developed this SMP with strict definitions for shoreline development and exacting standards for such development. This document is intended to provide guidance for any proposed development within the project boundary. Any proposals that deviate from the SMP would require FERC approval, but any proposals that are deemed appropriate under the SMP would be within the authority of AEP to approve.

### **1.2 Goals and Objectives**

The overall goal for the SMP is to develop a management tool that will help provide guidance for fulfilling license responsibilities and obligations for the project, including protecting and enhancing the project's environmental, scenic, and recreational values. This overall goal and the specific goals outlined here apply solely to those lands and waters contained within the Smith Mountain Pumped Storage Project's project boundary. Specific goals include:

1. Protecting environmental attributes such as wetlands, habitat and spawning areas.
2. Preserving the natural scenic quality of the shoreline for both boaters and shore viewers and preserving specific scenic attributes.
3. Protecting cultural resources.
4. Enhancing recreational opportunities by considering boating densities and navigation and maximizing available use of the project waters by the public.
5. Cooperating with multiple governmental entities that surround the project to coordinate adjacent land uses and proposed infrastructure with shoreline uses.

6. Working with the same entities to coordinate permitting efforts.
7. Minimizing impacts among contrasting uses.
8. Striving for a balance that supports local economic interests yet protects environmental and recreational resources and that allows the public to enjoy these interests and resources.

The objectives that will enable the provisions of the SMP to meet these goals are included in the body of the SMP as parameters and regulations that have been developed by the Steering Committee.

### **1.3 Project Area Description**

The Smith Mountain Pumped Storage Project is located on the Roanoke River in the south central region of Virginia. Two developments comprise the Smith Mountain Pumped Storage Project: the Smith Mountain (Upper) Development located at river mile 314 and the Leesville (Lower) Development located at river mile 296.

The Smith Mountain Development consists of a concrete arch dam with integral powerhouse. The reservoir has a surface area of approximately 20,600 acres and approximately 500 miles of shoreline along which are private residences and a number of public and private recreational sites. The reservoir surface elevation can fluctuate up to 2 feet during a normal generation/pumpback cycle. The normal maximum operating level for the Smith Mountain Development is elevation 795.0 (National Geodetic Vertical Datum) NGVD. During low inflow situations the operating level may be less. The project boundary for the Smith Mountain Development generally follows contour elevation 800.0 NGVD around the perimeter of the Smith Mountain Reservoir except in those areas defined by survey beyond the referenced contour elevation. In times of high inflow, water levels may rise up to and occasionally over the 800' contour.

The Leesville Development is the lower development of the Smith Mountain Pumped Storage Project and consists of a concrete gravity dam with integral powerhouse. The reservoir has a surface area of approximately 3,040 acres and approximately 100 miles of shoreline. Development along the Leesville Reservoir is limited as are public and private recreational facilities. The reservoir surface elevation can fluctuate up to 13 feet during a normal generation/pumpback cycle. The normal upper operating level for the Leesville Development is elevation 613.0 NGVD. The project boundary around the Leesville Reservoir generally follows contour elevation 620.0 NGVD except in those areas defined by survey beyond the referenced contour elevation.

In addition to providing hydroelectricity and limited flood control, the project also serves a variety of additional purposes. The project is used for public drinking water; a variety of water based recreation activities; including fishing, swimming, boating, and nature viewing; and provides an economic draw to the area as a major tourist destination.

## 1.4 Consultation

A steering committee was formed to guide the SMP development process. Thirteen state agencies, counties, chambers of commerce, and homeowner groups along with AEP have worked together since May 2001. The intent of the steering committee was to provide as open a forum as possible for the development of the SMP such that the SMP would benefit from input and information from all of the groups that would be affected by its implementation. At the beginning of the process, steering committee members were reminded to bring the information discussed at the meetings back to their constituents. Table 1.4-1 contains a list of the steering committee groups and individual representatives. Table 1.4-2 contains a list of individuals that participated in the steering committee process other than official representatives and alternates. The steering committee has met a minimum of quarterly to review, discuss, and develop the shoreline management plan (Table 1.4.3).

**Table 1.4-1. Steering Committee Groups and Individual Representatives**

<b>Group or Agency</b>	<b>Representative</b>	<b>Official Representative or Alternate</b>
Bedford County	Kirby Richardson Gina Shaw	Official Alternate
Campbell County	J. Mike Davidson	Official
Franklin County	Bonnie Johnson Tim Krawczel	Official Alternate
Pittsylvania County	Dan Sleeper Greg Sides	Official Alternate
Smith Mountain Lake Association	Dave Banta Stan Smith	Official Alternate
Association of Lake Area Communities	Steve Campbell	Official
Smith Mountain Lake Chamber of Commerce / Partnership	Ron Willard II Jeff Graff	Official Alternate
VA Dept. of Conservation and Recreation	Robert Munson	Official
VA Dept. of Environmental Quality	Mike McLeod	Official
VA Dept. of Game and Inland Fisheries	Charlie Sledd Bud LaRoche	Official Alternate
VA Dept. of Historic Resources	Ethel Eaton	Official
VA Dept. of Health	Preston Smith	Official
Campbell County Citizen Representative	Bill Gillespie	Official
AEP	Teresa Rogers Liz Parcell	Official Alternate
The Louis Berger Group, Inc.	Gregory Theyel Bill Perry	Facilitator Facilitator

**Table 1.4-2. Participants in the Steering Committee Process**

<b>Individual</b>	<b>Organization</b>
Bill Rolfe	Bedford County
Brent Wills	Bedford County
Charles Poindexter	Franklin County
Frank Simms	AEP
Rick Huff	Franklin County
Phil Nester	Franklin County
Mike Turner	Dock Builder Representative

**Table 1.4-3. Steering Committee Meeting Dates**

<b>Year</b>	<b>Date</b>
2001	May 8 June 19 November 14
2002	April 11 August 7 October 17 December 18
2003	January 30 May 1 June 18 and 19 August 26

In addition to the activities of the steering committee, AEP has provided information to and actively solicited input from the general public at key points in the SMP development process. In addition, AEP prepared a website ([www.smithmtn.com](http://www.smithmtn.com)) to provide timely information to the steering committee and general public. AEP held a general information meeting on January 29, 2002, to provide information about the SMP process and to solicit input from the public regarding important resources and issues on Smith Mountain and Leesville Lakes. AEP provided a questionnaire for individuals to fill out and return. AEP also made the questionnaire available to a number of groups, the counties, and the local paper, and posted it on the SMP website. AEP held a second public meeting on August 7, 2002, where it presented the preliminary results of summer data collection efforts and reported on the status of the shoreline management planning process. AEP held 2 public meetings on February 19 and 20, 2003, to present draft shoreline classifications, parameters, and preliminary regulations for shoreline development. AEP held 2 public meetings on July 23 and 24, 2003 to present the Draft Shoreline Management Plan.

## **2.0 METHODS AND PLANNING PROCESS**

Various resource studies and data collection efforts were undertaken to obtain current information for the development of the SMP. This section describes the resource study methods and data collection and the planning process used to develop the parameters, shoreline classifications, and regulations that make up the SMP. Steering committee members were asked to provide comments on the study methods prior to the commencement of the studies.

### **2.1 Data Collection**

#### *2.1.1 Land Use*

Aerial digital ortho-rectified photos of Smith Mountain Lake and Leesville Lake were collected on April 4, 2002. The photos were used as a base map for developing an accurate shoreline. In addition, the photos were utilized to document existing land uses within the project boundary.

#### *2.1.2 Shoreline Condition and Stabilization*

The entire shorelines of Smith Mountain Lake and Leesville Lake were surveyed by boat, and land where necessary, to characterize the conditions of the shoreline with regard to erosion. During the survey, site-specific data was collected for each site, including type of erosion by general category, adjacent land use, and vegetative cover.

Digital photos of each site were taken for comparison with any historical data, and to provide a historical reference for any future assessment of the site. The position of the limits of each site was recorded along with the profile end points using Global Positioning System (GPS) technology. The GPS data was exported to a Geographic Information System (GIS) to generate site location maps and measure distances between data points. The date and time that the site data was collected were recorded so that the data can be correlated to the impoundment water surface elevation as recorded by the station operators. Any other information that may be relevant to the assessment, including signs of damage caused by humans or animals accessing the lake at that location, evidence of past or present efforts to stabilize or remediate the sites, observance of boat wakes or wind-driven waves, etc. was also recorded. This information was recorded for historical reference of existing shoreline conditions.

#### *2.1.3 Ecological Resources*

Aquatic habitat types along the shoreline of Smith Mountain Lake and Leesville Lake were classified. The habitat types include the following:

- Submerged timber and timber-woody debris, which consists of downed trees submerged in coves with at least five trees per 100 linear feet with diameters of 10 inches or greater at the trunk base.

- ❑ Fringed wetland areas, which are a diverse assemblage of herbaceous and woody plant (emergent/submerged and scrub/shrub) species in shallow water habitat (less than six feet) of coves and not associated with a tributary stream.
- ❑ Scrub-shrub habitat, which consists of island or peninsula areas associated with the emergent/submerged vegetation areas.

Using GPS technology, the position of the limits of the listed habitat types were recorded. The GPS data was exported to a GIS to generate site location maps and measure distances between data points. Experts in shoreline vegetation and GIS mapping were utilized to ensure the quality of the information that was collected.

#### *2.1.4 Cultural Resources*

The Virginia State Historic Preservation Office (SHPO) was contacted to determine the extent of the cultural resources that are found within one-quarter mile of the shoreline of the Smith Mountain Pumped Storage Project. Through the use of the SHPO files, the known archaeological and architectural sites were documented. The information in the SHPO files was used to create a relational database that included, at a minimum, the location of the site and type of site. In addition, when additional information, such as site integrity, approximate time period, and eligibility for the National Register of Historic Places was available, it was included in the database. The total number of cultural sites is 129 archaeological sites and 38 architectural resources. Due to the sensitive nature of these sites and their locations, the specifics of the sites cannot be discussed within the context of this plan. However, this information has been used in the shoreline analysis as detailed in the parameters and appropriate regulations sections.

#### *2.1.5 Public and Private Recreation Facilities*

Recreation facilities along Smith Mountain Lake and Leesville Lake were documented. There are 8 public boat launches within the project boundary (6 on Smith Mountain Lake and 2 on Leesville Lake). Virginia Department of Game and Inland Fisheries maintains 5 of the boat launches on Smith Mountain Lake (Anthony Ford, Hales Ford, Hardy Ford, Penhook, and Scruggs) and both of the launches on Leesville Lake (Leesville Dam and Myers Creek). The Virginia Department of Conservation and Recreation operates the Smith Mountain Lake State Park; which offers cabin rentals, camping facilities, hiking trails, a swimming beach, boat launch, fishing pier, interpretive programs, picnic areas, and a visitor's center.

In addition, there are 27 commercial facilities within the project boundary that provide access to the public (25 on Smith Mountain Lake and 2 on Leesville Lake). These businesses provide a variety of services including boat launching, concessions, gas, boat rental and equipment sales.

Private homeowner docks contribute a large amount of recreational use to the lakes. It is estimated that there are 6,336 residential docks existing on Smith Mountain Lake and 98 residential docks on Leesville Lake.

### 2.1.6 County Regulations

Regulations and planning principles pertinent to the shorelines of Smith Mountain Lake and Leesville Lake as written in the county codes of Franklin, Bedford, Pittsylvania, and Campbell Counties were collected. These zoning regulations are based on land use policies and goals contained in the Comprehensive Plans of each county. In addition, each county uses distinctive language to describe their code and zoning regulations however, these regulations can be grouped into general zone districts of agricultural, commercial, residential, industrial, and conservation. Each county has specific language that regulates development along the shoreline in some capacity either through specific overlay districts, or within the context of the general zoning regulations for each zoning type e.g. agricultural, commercial or residential. This county zoning information was utilized in developing shoreline classifications.

### 2.1.7 Recreation Use Density

Aerial photos of the lakes on 10 randomly chosen holiday and weekend days between Memorial Day and Labor Day 2002 were collected and analyzed. Table 2.1-1 includes all of the aerial photo dates and the total number of boats on Smith Mountain Lake. The photos were collected between 11:00 a.m. and 3:00 p.m. Eastern Daylight Time. The focus was on Smith Mountain Lake for the recreation use density mapping due to the relatively small number of boats in use on Leesville Lake during the study period. It was determined that the density of boats on Leesville Lake did not exceed 20 acres per boat during any of the study periods and did not warrant extensive mapping of Leesville Lake. To analyze the number of boats on Smith Mountain Lake, the lake was divided into 209 sections to be analyzed. Smith Mountain Lake was divided based upon natural restrictions and coves on the lake. The boat counts were utilized to develop average boat densities for each of the sections of the lake. Appendix C contains the results of the boat density mapping.

**Table 2.1-1. Aerial Photo Collection Dates and Total Boating Numbers**

<b>Date</b>	<b>Boats on Smith Mountain Lake (Total)</b>
June 9, 2002	824
June 22, 2002	866
July 4, 2002	1105
July 6, 2002	2102
July 7, 2002	844
July 13, 2002	427
July 28, 2002	865
August 4, 2002	822
August 18, 2002	662
September 3, 2002	695

In addition to the aerial photographs, interviews were conducted with people using the lakes during the peak use times. The interviews included questions about individual perceptions of crowding and safety on Smith Mountain Lake. The survey data was

collected with the boat densities to establish the relationship between people's perceptions and use levels. Overall 349 individuals were interviewed on the 10 aerial flyover dates. Individuals were asked to rate their perceptions of crowding on the lake on a scale of 1 to 5 (Table 2.1-2). The average response was 2.0 indicating that on average individuals' perceptions were that the lake was somewhat crowded. The standard deviation for the perceptions was 1.02.

**Table 2.1-2. Distribution of Responses for Perceptions of Crowding**

<b>Response</b>	<b>Number</b>
1 - Not at all crowded	129
2 - Somewhat crowded	133
3 - Moderately crowded	54
4 - Very crowded	23
5 - Extremely crowded	10

The Virginia Statewide Comprehensive Outdoor Recreation Plan (SCORP) contains standards for acceptable densities for boating. The standard for power boating is 12 acres per boat. The steering committee determined that a standard of 15 acres per boat would be utilized to determine medium and low density areas. Based on these standards the high density areas are areas that contain more boats than would be allowed using a standard of 12 acres per boat, medium density areas contain a number of boats that translates to a boating density of between 12 acres per boat and 15 acres per boat, and low density areas contain fewer boats than would be allowed using a standard of 15 acres per boat. Boating patterns are not uniform around the lake, therefore it is inappropriate to apply these standards to the entire lake to determine a carrying capacity for the entire lake. By utilizing smaller sections of the lake, boating capacity could be more accurately depicted.

Available information on watercraft accidents on the lakes and available accident locations was gathered. Accident information with boat densities and people's perceptions of crowding and safety on the lakes were correlated. These various pieces of information (aerial photos, interviews, and accidents) were assembled to determine whether any of the sections of the lakes are approaching carrying capacity. This information was used to classify the shoreline according to adjacent watercraft use.

## **2.2 Mapping**

State of the art digital orthorectified aerial photography, GPS units, and digital photographs to decrease the level of mapping inaccuracies that are inherent to any type of mapping exercise were utilized. The shorelines of Smith Mountain Lake and Leesville Lake were digitized at a scale of 1:1,000 which yields an accuracy of  $\pm 3$  feet.

The shoreline classification maps were developed using the information that was collected and the parameters that were developed by the steering committee. The parameters include classification according to the presence of areas identified as a part of this data collection.

### *2.2.1 Mapping Revision Process*

AEP realizes that there are minor inaccuracies associated with mapping of any type and that the resources of Smith Mountain Lake and Leesville Lake may change over time. Individuals that believe that the classification along the shoreline adjacent to their property is inaccurate may apply to AEP for a revision. To make such an application, an individual must notify AEP in writing that they wish to investigate the shoreline classification. The following steps will be taken:

1. A private property owner/developer applies to AEP for a reclassification.
2. AEP will review the appropriate (i.e., latest version filed with the FERC) SMP Maps and make a site field inspection if necessary to address any shoreline classification issues. If AEP determines that there is no inaccuracy based upon the parameters outlined in this document, then the classification stands.
3. If AEP determines that there is a discrepancy in the classification involving existing facilities, AEP will make the revisions.
4. If AEP determines that there is a potential discrepancy that will change the shoreline classification, then the variance process for modification of shoreline classifications will be followed as outlined in Section 3.3.4.

### **2.3 Shoreline Classifications**

The following section presents the shoreline classifications. Classifications are not exclusive; they are inclusive from the “top down.” An area designated for High Density Commercial facilities could be used for any other use, but not vice-versa.

The proposed use will dictate which regulations will apply to the proposed development. When the proposed development is a “lesser“ use than the SMP shoreline classification, the regulations for the proposed development will prevail (e.g., a proposed residential dock in an area where the shoreline designation is high-density multi-use is required to meet the low-density use regulations). In addition, if county zoning and the shoreline classification do not match, the more restrictive regulations will apply (e.g., a dock in a county’s residentially zoned district would have to meet the low density regulations, even if the shoreline classification is commercial, unless the County changed their zoning for the upland use). Appendix D contains the shoreline classification maps.

#### Shoreline Classifications

- High Density Commercial - Project lands and waters where profit seeking individuals or entities operate facilities as a place of business. Within the project boundaries those facilities may include areas where boats can be launched, retrieved or docked, as well as obtain petroleum. Outside the project boundaries associated facilities could include provisions for food services, convenience retailing including petroleum dispensing, dry storage of watercraft and where other activities customarily associated with marinas, campgrounds, private recreation areas and

private clubs take place. The high density commercial classification includes facilities that would be expected to incur heavy amounts of boat traffic, such as marinas.

- High Density Multi-Use - Project lands and waters where boats can be launched, retrieved or moored for the purpose of providing private access to the lake for specific residential properties including:
  - Multi-family dwellings (e.g. apartments, townhouses, condominiums).
  - Subdivision access lots that serve single-family type dwellings that are located within a parcel of land that has been subdivided into individual lots.

The high density multi-use classification allows for access to the lakes for more than one property owner. Such access could be in the form of multi-slip common dock areas and/or an access ramp with a courtesy dock depending upon the amount of shoreline available for the access area.

- Public Use - Project lands and waters where facilities are operated by non-profit organizations, the licensee, or governmental entities and that support various public recreational amenities or areas that are used for the public good. Examples of public use include public access areas, and state, district, and county parks that adjoin the project boundary, lake clean-up facilities and other similar public use type endeavors.
- Low Density Use – The low density use classification encompasses 4 types of development. Any of the 4 types are appropriate for these areas.
  - Single Family-Type Residential - Project lands and waters that support private facilities for waterfront landowners, none of which can have multi-family dwellings or provide access for off-water lots. Uses within this classification may include, among other things, piers, boat docks, and floaters.
  - Low Density Multi-Use – Project lands and waters that support apartments, townhouses, and condominiums and off water or common lot access for developments.
  - Low Density Commercial - Project lands and waters where profit seeking individuals or entities operate facilities as a place of business. Within the project boundaries, those facilities may include areas where boats can be docked for short periods of time by customers. Launching of boats from these facilities is not allowed. For operations outside the project boundaries, associated facilities could include provisions for food services, convenience retailing and restaurants or private clubs. The low use commercial classification includes facilities that would be expected to incur relatively small amounts of boat traffic, such as access docks for convenience stores, restaurants, or shopping areas.
  - Low Density Public Use - Project lands and waters where facilities are operated by non-profit organizations, the licensee, and/or governmental entities and that support various public recreational amenities or areas that are used for the public good. Examples of this type of public use include public access areas, and state, district, and county parks that adjoin the project boundary, lake clean-

up facilities and other similar public use type endeavors. Ramps are allowed in low density public use areas for public service uses.

- Impact Minimization Zone - Project lands and waters that have specifically-identified importance from an environmental, scenic, cultural, or recreational standpoint. Development within these areas would be limited, but possible, based on a review of the related plans including mitigation for any impacts to resources.
- Conservation/Environmental – Smith Mountain Lake and Leesville Lake are important to the economies of the local towns, cities, and counties and contain characteristics that make them a significant regional provider of a variety of resources. There are resources on the lakes that need protection to ensure that they maintain their attributes on a local and regional scale. The specific resources that need protection are recreational opportunities, scenic beauty, water quality, fish and wildlife habitat, and wetlands. The Conservation/Environmental classification includes areas around the lakes that are particularly important for protecting and enhancing these various resources. In these areas, development inside the project boundary would be prohibited unless a variance can be obtained.

Tables 2.3-1 and 2.3-2 contain the total linear shoreline miles for each of the shoreline classifications on each of the lakes.

**Table 2.3-1. Shoreline Totals and Percentages for Smith Mountain Lake**

Shoreline classification	Total miles	Percentage
High-density commercial	20.92	4.3
High-density multi-use	36.83	7.5
Public use	20.17	4.1
Low-density use	376.61	76.9
Impact minimization zone	17.29	3.5
Conservation/Environmental	18.19	3.7

**Table 2.3-2. Shoreline Totals and Percentages for Leesville Lake**

Shoreline classification	Total miles	Percentage
High-density commercial	0.18	0.2
High-density multi-use	22.50	24.3
Public use	0.21	0.2
Low-density use	49.96	54.0
Impact minimization zone	2.60	2.8
Conservation/Environmental	17.04	18.4

## 2.4 Parameters

The following conditions represent parameters for defining the classifications of the shorelines of Smith Mountain Lake and Leesville Lake. Information about how these parameters are applied is included as well. All references to *existing* and *currently* are defined as of January 1, 2003.

### High Density Commercial

- Shoreline with existing commercial marina facilities, or
- All shoreline that is between Hales Ford Bridge and a point ½ mile from the bridge, or
- Shoreline that is currently zoned for commercial use

For High Density Commercial areas, any of the parameters can be met.

### High Density Multi-Use

- Coves and main channel areas with a width of more than 500 feet shoreline to shoreline,\* based upon the base mapping developed for the Smith Mountain SMP, and
- Existing watercraft density that is less dense than 15 acres per boat on the water adjacent to the proposed development or where the entrance to the cove is less dense than 12 acres per boat, or
- Shoreline with existing multi-use residential type facilities

\* The width requirement precludes this classification in coves that narrow to 500 feet or less and then widen out again and main channel areas that are wider than 500 feet but are upstream of locations that are less than 500 feet. Existing shoreline classified for High Density Multi-Use may continue to exist in these areas.

For High Density Multi-Use areas, either the combination of the first two parameters or the third parameter must be met.

### Public Use

- Coves and main channel areas with a width of more than 500 feet shoreline to shoreline,\* based upon the base mapping developed for the Smith Mountain SMP, and
- Existing watercraft density that is less dense than 15 acres per boat, or
- Shoreline currently designated as public recreation, or
- Areas identified for future public use.

\* The width requirement precludes this classification in coves that narrow to 500 feet or less and then widen out again and main channel areas that are wider than 500 feet but are upstream of locations that are less than 500 feet. Existing Public Use facilities may exist in these areas.

For Public Use areas, either the combination of the first two parameters or the third parameter or the fourth parameter must be met.

### Low Density Use

- Areas not otherwise classified, or
- Shoreline with areas of existing single family docks and piers.

### Impact Minimization Zone

- Wetlands that span less than 100 feet of linear shoreline, or
- Areas classified as large woody debris. The definition of large woody debris areas is “Areas of large downed trees with a density of more than 5 trees greater than 10 inches in diameter per 100 linear feet of shoreline.”, or
- Areas within 100 feet of a known cultural resource site contained in the VA SHPO files, or
- Undeveloped islands, or
- Area adjacent to Smith Mountain Wildlife Management Area, or
- Shoreline adjacent to areas identified as scenic by majority of questionnaire respondents (Ex. Smith Mountain).

For the Impact Minimization Zone areas, any of the parameters may be met and will override any of the other classifications.

### Conservation/Environmental

- Large wetland areas (e.g. 100 ft. or more of continuous shoreline length), usually associated with streamheads at the backs of coves, or
- Areas identified by the Virginia Natural Heritage Program as important natural communities, or
- Areas within designated restriction zones such as between the boat barriers upstream of the project dams and the dams themselves.

For the Conservation/Environmental areas, any of the parameters may be met and will override any of the other classifications.

## **2.5 Regulations**

### *2.5.1 High Density Commercial Regulations*

High density commercial areas are defined as Project lands and waters where profit seeking individuals or entities operate facilities as a place of business. Within the project boundaries those facilities may include areas where boats can be launched, retrieved or moored, as well as obtain petroleum. Outside the project boundaries associated facilities could include provisions for food services, convenience retailing including petroleum dispensing, dry storage of watercraft and where other activities customarily associated with marinas, campgrounds, private recreation areas and private clubs take place. The high density commercial category includes all existing commercial docking facilities. The high density commercial classification includes facilities that would be expected to incur heavy amounts of boat traffic, such as marinas.

1. All shoreline distances are measured at the 795-contour line National Geodetic Vertical Datum (NGVD) for Smith Mountain Lake and the 600-foot contour NGVD for Leesville Lake. These respective contours are hereafter referred to as base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.

2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. All docks shall meet all local, state and federal requirements.
4. All applicants must consider ADA standards and ADAAG recreation facility guidelines. Applicants shall adhere to any applicable laws and regulations.
5. Any dredging that occurs must meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
6. The docks shall not exceed a maximum of 1/3 cove width or 120 feet in length, whichever is less, as measured from the base elevation (Figure 1). However, an exception is allowed when the cove is 510 feet or wider; then the length of the dock plus a 50 foot no-wake zone cannot exceed 1/3 cove width with a maximum dock length of 166 feet.
7. The dock owners will sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
8. The minimum fairway between groups of dock slips shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance. If there are no slips in either of the structures, the minimum distance shall be 50 feet.
9. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
10. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of access structures shall be 12 feet.
11. Facilities must be in compliance with the Commonwealth of Virginia Sanitary Regulations for Marinas and Boat Moorings. Restroom facilities including portable facilities and sewage holding tanks must be located outside the project boundary.

12. All structures located within the project boundary must be located within the dock easement lines and must maintain a setback of at least 100 feet plus a fairway equivalent to 2 times the length of the longest slip adjacent to the side lot from dock easement lines for commercial facilities that are adjacent to low density use areas and 60 feet from dock easement lines if adjacent to High Density Commercial, High Density Multi-Use or Public Use facilities (Figure 3).
13. Permittees are allowed 1 enclosure per service dock that may measure a maximum of 48 square feet (inside dimensions).
14. The maximum height, as measured from the base elevation to the highest point on any dock structure, shall be 33 feet. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. This is to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story. Flat roofs shall not be used for commercial purposes. (Figure 4)
15. White reflective tape or white reflectors are required on each furthest waterward corner of the dock and every 20 feet on both sides of the dock.
16. Docks must be located at least 60 feet landward from the navigational lane that runs perpendicular upstream and downstream from Hales Ford Bridge. This regulation will apply within 1,000 feet of the Hales Ford Bridge.
17. Docks shall be constructed perpendicular to the shoreline.
18. Boat ramps are allowed in High Density Commercial areas and must meet all fairway distance and side setback requirements.
19. The maximum width of a ramp lane shall be sixteen feet for a single lane and thirty-two feet for a double lane. The ramp shall have the required length to be functional.
20. Boat ramp construction shall meet all local, state, and federal requirements.
21. Ramps shall be constructed of reinforced concrete with a minimum thickness of six inches.
22. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.

23. Construction of new high density commercial facilities requires consultation with and concurrence from the VA SHPO to ensure the protection of unknown cultural resources.
24. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure. In addition, structures serving marinas constructed prior to the implementation of the Shoreline Management Plan may be rebuilt to the same footprint. Furthermore, slips within these structures may be rearranged in order to provide more efficient use of existing space provided that the rearrangement does not create a navigation, safety or environmental concern nor does it increase the overall number of slips.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

### 2.5.2 High Density Multi-Use Regulations

High Density Multi-Use - Project lands and waters where boats can be launched, retrieved or moored for the purpose of providing private access to the lake for specific residential properties including:

- Multi-family dwellings (e.g. apartments, townhouses, condominiums).
- Subdivision access lots that serve single-family type dwellings that are located within a parcel of land that has been subdivided into individual lots.

The high density multi-use classification allows for access to the lakes for more than one property owner. Multi-use facilities may provide access to the lake via one of 2 options for either multi-family developments or housing subdivisions that consist of an original parcel with water frontage that has been subdivided and contains off-water lots. The 2 options for high-density multi-use are community docks or boat ramps with courtesy docks. The high-density multi-use classification includes all of these types of facilities that have a dock density of greater than 2 slips per 100 feet of shoreline.

#### Community dock option

1. All shoreline distances are measured from base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. All docks shall meet all local, state and federal requirements.
4. The docks shall not exceed a maximum of 1/3 cove width or 120 feet in length, whichever is less, as measured from the base elevation (Figure 1).
5. Any dredging that occurs must meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
6. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
7. The dock owner will sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.

8. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.
9. A maximum of one boat slip per housing unit served will be considered for approval.
10. A high density multi-use dock shall be limited to no more than 4 slips per 100 linear feet of shoreline. These slips shall be grouped together to the greatest extent possible given restrictions based on other regulations.
11. The size of the dock shall not exceed 400 square feet per boat slip.
12. A floating dock structure may be added to the end of each structure for courtesy/guest boat tie-up. The dimensions of the floating dock shall not exceed six feet by 50 feet. This structure shall not extend beyond the 120 foot or 1/3 cove maximum length.
13. All structures located within the project boundary must be located within the dock easement lines and must maintain a setback of at least 100 feet plus a fairway equivalent to 2 times the length of the longest slip adjacent to the side lot from dock easement lines for high density multi-use facilities that are adjacent to low density use areas and 60 feet from dock easement lines if adjacent to High Density Commercial, High Density Multi-Use or Public Use facilities (Figure 3).
14. The minimum fairway between groups of dock slips shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance. If there are no slips in either of the structures, the minimum distance shall be 50 feet.
15. The facilities must meet the Commonwealth of Virginia Sanitary Regulations for Marinas and Boat Moorings. Restroom facilities and sewage holding tanks must be located outside the project boundary.
16. Enclosures on the dock shall not be allowed. A screened area is considered an enclosure.
17. The maximum height, as measured from the base elevation to highest point on the structure, shall be 19 feet for a structure with a flat roof and 26 feet for a structure with a pitched roof. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. This is to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story (Figure 4).

18. Slips shall be constructed in conjunction with the construction of respective housing units.
19. Docks shall be constructed perpendicular to the shoreline.
20. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
21. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.
22. Construction of new high density multi-use facilities requires consultation with and concurrence from the VA SHPO to ensure the protection of unknown cultural resources.
23. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

Courtesy pier and ramp option

1. All shoreline distances are measured at the base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. Piers must meet all local, state and federal requirements.
4. Piers shall not exceed a maximum of 1/3 cove width or 100 feet in length, whichever is less, as measured from the base elevation (Figure 1).
5. Piers shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
6. The pier owner will sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
7. The maximum size of courtesy pier structures located within the base elevation shall be 1,200 square feet (Figure 2).
8. No enclosures shall be allowed on the pier. A screened area is considered an enclosure.
9. Structures between the project boundary and the base elevation shall be limited to those that provide access to approved shoreline structures. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.

10. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
11. No roofs allowed on courtesy piers.
12. The maximum width of a ramp lane shall be sixteen feet for a single lane or thirty-two feet for a double lane. The ramp shall have the required length to be functional.
13. Boat ramp construction shall meet all local, state, and federal requirements.
14. Ramps shall be constructed of reinforced concrete with a minimum thickness of six inches.
15. All structures and ramps located within the project boundary must be located within the dock easement lines and must maintain a setback of at least 100 feet plus the fairway distance from dock easement lines for high density multi-use facilities that are adjacent to low density use areas and 60 feet from dock easement lines if adjacent to High Density Commercial, High Density Multi-Use or Public Use facilities (Figure 3).
16. The minimum fairway between groups of dock slips or ramps shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance.

### *2.5.3 Public Use Regulations*

Public use areas are defined as Project lands and waters where facilities are operated by non-profit organizations, the licensee, or governmental entities and that support various public recreational amenities or areas that are used for the public good. Examples of the public use classification include public access areas, and state, district, and county parks that adjoin the project boundary, lake clean-up facilities and other similar public use type endeavors. Public use areas may include multi-slip docks and/or boat ramps with courtesy docks.

#### Multi-slip docks

1. All shoreline distances are measured from base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. All docks shall meet all local, state and federal requirements.

4. All applicants must consider ADA standards and ADAAG recreation facility guidelines. All applicants must adhere to any applicable laws and regulations.
5. Facilities must be in compliance with the Commonwealth of Virginia Sanitary Regulations for Marinas and Boat Moorings. Restroom facilities including portable facilities and sewage holding tanks must be located outside the project boundary.
6. Any dredging that occurs must meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
7. The docks shall not exceed a maximum of 1/3 cove width or 120 feet in length, whichever is less, as measured from the base elevations (Figure 1).
8. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
9. The dock owner will sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
10. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.
11. All structures located within the project boundary must be located within the dock easement lines and must maintain a setback of at least 100 feet plus a fairway equivalent to 2 times the length of the longest slip adjacent to the side lot from dock easement lines for public use facilities that are adjacent to low density use areas and 60 feet from dock easement lines if adjacent to High Density Commercial, High Density Multi-Use or Public Use facilities (Figure 3).
12. Permittees are allowed 1 enclosure per service dock that may measure a maximum of 48 square feet (inside dimensions). A screened area is considered an enclosure.
13. Only floating docks or uncovered piers shall be considered for public use areas, with the exception of boathouses and covered docks for storage of government service boats. The maximum size of the enclosed area shall be 500 square feet per boat served. The location of the boathouse will be determined by AEP and the appropriate government agency. The maximum height, as measured from the base elevation to

highest point on the structure, shall be 33 feet. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. This is to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story (Figure 4).

14. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
15. Docks shall be constructed perpendicular to the shoreline.
16. The minimum fairway between groups of dock slips shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance.
17. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.
18. Construction of new public use facilities requires consultation with and concurrence from the VA SHPO to ensure the protection of unknown cultural resources.
19. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the

intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

#### Courtesy pier and ramp

1. Courtesy piers shall meet all local, state and federal requirements.
2. ADA standards and ADAAG recreation facility guidelines shall apply as required by any state or federal laws.
3. Courtesy piers shall not exceed a maximum of 1/3 cove width or 100 feet in length, whichever is less, as measured from the 800-foot contour NGVD. Verifying the location of the 795-foot contour NGVD is the responsibility of the landowner (Figure 1).
4. The pier owner shall sign an acknowledgement when obtaining his or her dock permit that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
5. The maximum size of pier structures located within the base elevation is 1,200 square feet (Figure 2).
6. Piers shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting agency or government for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
7. No enclosures shall be allowed on the courtesy pier. A screened area is considered an enclosure.
8. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp

or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.

9. The courtesy pier shall be uncovered.
10. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock
11. The maximum width of a ramp lane shall be sixteen feet for a single lane and thirty-two feet for a double lane. The ramp shall have the required length to be functional.
12. Boat ramp construction shall meet all local, state, and federal requirements.
13. Ramps shall be constructed of reinforced concrete with a minimum thickness of six inches.
14. Ramps and courtesy docks shall not be located closer than 100 feet plus a fairway equivalent to 2 times the length of the longest slip adjacent to the side lot from dock easement lines for public use facilities that are adjacent to low density use areas and 60 feet from dock easement lines if adjacent to High Density Commercial, High Density Multi-Use or Public Use facilities (Figure 3).
15. The minimum fairway between groups of dock slips (fairway distance) shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance. If there are no slips in either of the structures, the minimum distance shall be 50 feet.

#### *2.5.4 Low-Density Use Regulations*

The Low Density Use category consists of 4 types of low density development. Any of the 4 types may be developed adjacent to shoreline that has been designated as low density use. The sub-categories are single-family residential, low-density multi-use (to serve condominiums, off water lots, apartments or multiple on water single family homes), low-density commercial, and low-density public use.

##### Single Family Residential

1. All shoreline distances are measured from base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.

3. All docks shall meet all local, state and federal requirements.
4. Docks shall not exceed a maximum of 1/3 cove width or 100 feet in length, whichever is less, as measured from the base elevations (Figure 1).
5. Any dredging that occurs shall meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
6. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate agency or organization for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
7. The dock owner shall sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
8. The maximum size of dock structures located within the base elevation, including slip area and not including the walkway, shall be based upon the amount of shoreline available to the permit applicant (Figure 2 and Table 2.5-1).

**Table 2.5-1. Size Limits for Single-Family Residential**

<b>Amount of shoreline</b>	<b>Maximum size*</b>	<b>Maximum number of slips</b>
100-300 linear feet	1,500 square feet	2
301-600 linear feet	2,250 square feet	3
601-900	3,000 square feet	4
Each additional 300 linear feet	750 square feet	1

\* The maximum size of a single structure shall be 3,000 square feet with a minimum of 30 feet between separate docks.

Construction of three or more slips requires an adjacent residence with functioning restroom facilities consistent with VDH Guidelines.

9. Should the original property on which the permit is granted be subdivided, all subdivided parcels, including the parcel containing the dock structure, must meet all requirements set forth in this plan.
10. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be six feet. Floating walkways can be eight feet in width.

11. The minimum water frontage required shall be 100 feet as measured at the base elevation. Two adjoining shoreline lots having a total of 150 feet minimum shoreline may share a pier/dock. Shared piers/docks shall be located as close as possible to the shared side lot line. If a lot is subdivided prior to September 2, 2003, then it does not have to meet the 100 foot frontage requirement but the structure does have to meet setback requirements.
12. All structures located within the project boundary shall be located within the dock easement lines and shall maintain a setback of at least 15 feet from dock easement line. Docks may also be placed in accordance with dock locations that are shown or referenced on a recorded document or with the permission of adjacent landowners (Figure 3), provided all other regulations of the SMP are met. The minimum fairway between docks shown or referenced on a recorded document shall be 30 feet.
13. The maximum size of an enclosure on the dock shall be 72 square feet (outside dimensions). These enclosures shall not be used for human habitation and shall not be equipped with fixtures such as sinks, showers, toilets, etc. The enclosure shall be located on the lower level of the dock. A screened area is considered an enclosure. The enclosed area must be located within the 10 feet of the dock closest to the shoreline.
14. The maximum height, as measured from the base elevation to the highest point on the structure, shall be 19 feet for a structure with a flat roof and 26 feet for a structure with a pitched roof. This height does not include cupolas or weathervance. The maximum height of a cupola shall be 36 inches. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. These fluctuations are to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story (Figure 4).
15. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
16. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.
17. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of

the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

Low Density Multi-Use (to serve condominiums, off water lots, apartments, or multiple on water single family homes)

1. All shoreline distances are measured at the base elevations. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. Docks shall meet all local, state and federal requirements.

4. Docks shall not exceed a maximum of 1/3 cove width or 100 feet in length whichever is less, as measured from the base elevation (Figure 1).
5. Any dredging that occurs shall meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
6. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
7. The dock owner shall sign an acknowledgement when obtaining his or her dock permit that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
8. The maximum size of dock structures located within the base elevation shall be 400 square feet per boat slip (Figure 2).
9. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.
10. A maximum of 1 watercraft slip per housing unit shall be considered for approval. However, if the dock serves multiple on-water single family homes who could under the low density residential regulations have an individual dock with two slips, then a maximum of 2 watercraft slips per single family home would be allowed. These slips would have to be clustered.
11. All structures located within the project boundary shall be located within the dock easement lines and shall maintain a setback of at least 30 feet from dock easement lines (Figure 3).
12. Enclosures on the dock are not allowed. A screened area is considered an enclosure.
13. The maximum height, as measured from the base elevation to highest point on the structure, shall be 19 feet for a structure with a flat roof and 26 feet for a structure with a pitched roof. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. These fluctuations are to be taken into consideration when

designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story (Figure 4).

14. Slips shall be constructed in conjunction with residential units.
15. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
16. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.
17. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be

provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

- 18 A low density multi-use dock shall be limited to no more than 2 slips per 100' of shoreline. These slips shall be grouped together to the greatest extent possible given restrictions based on other regulations.
19. If more than 1 structure exists on a property, the minimum fairway between groups of dock slips shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance.

#### Low Density Commercial

1. All shoreline distances are measured at the base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. Docks shall meet all local, state and federal requirements.
4. Any dredging that occurs shall meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
5. Docks shall not exceed a maximum of 1/3 cove width or 100 feet in length, whichever is less, as measured from the base elevation (Figure 1).
6. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
7. The dock owners shall sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
8. Boat docks shall be a maximum of 400 square feet per boat slip.

9. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.
10. All structures located within the project boundary shall be located within the dock easement lines and shall maintain a setback of at least 30 feet from dock easement lines (Figure 3).
11. One enclosure per service dock measuring not more than 48 square feet (inside dimensions) shall be allowed.
12. The maximum height, as measured from the base elevation to highest point on the structure, shall be 19 feet for a structure with a flat roof and 26 feet for a structure with a pitched roof. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. These fluctuations are to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story. Dock heights may be increased to 33 feet if the high density commercial setbacks are met (Figure 4).
13. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
14. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.
15. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon

receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

15. A low density commercial dock shall be limited to no more than 2 slips per 100' of shoreline. These slips shall be grouped together to the greatest extent possible given restrictions based on other regulations.
16. If more than 1 structure exists on a property, the minimum fairway between groups of dock slips shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance.

#### Low Density Public Use

##### Multi-slip docks

1. All shoreline distances are measured from base elevations. Verifying the location of the base elevation and all appropriate distances is the responsibility of the permit applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD, except in those areas defined by survey beyond the referenced contour elevation. These respective contours are hereafter referred to as the project boundary.
3. All docks shall meet all local, state and federal requirements.

4. All applicants must consider ADA standards and ADAAG recreation facility guidelines. Applicants must adhere to any applicable laws and regulations.
5. Any dredging that occurs must meet all state, federal, county, and AEP dredging requirements. Any individual that dredges within the project boundary without proper approvals could be subject to a fine.
6. The docks shall not exceed a maximum of 1/3 cove width or 100 feet in length, whichever is less, as measured from the base elevations (Figure 1).
7. Docks shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
8. The dock owner will sign an acknowledgement when obtaining his or her dock permit stating that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
9. A low density public use dock shall be limited to no more than 2 slips per 100' of shoreline. These slips shall be grouped together to the greatest extent possible given restrictions based on other regulations.
10. The maximum size of the dock shall be 400 square feet per boat slip.
11. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.
12. All structures located within the project boundary must be located within the dock easement lines and must maintain a setback of at least 30 feet from dock easement lines (Figure 3).
13. Permittees are allowed 1 enclosure per service dock that may measure a maximum of 48 square feet inside dimensions. A screened area is considered an enclosure.
14. Only floating docks or uncovered piers shall be considered for public use areas, with the exception of boathouses and covered docks for storage of government service boats. The maximum size of the enclosed area shall be 500 square feet per boat served. The location of the boathouse will be determined by AEP and the appropriate government agency. The maximum height, as measured from the base elevation to highest point on the structure, shall be 19 feet for flat roof and 26 feet for pitched roofs. Roofs shall only be allowed on floating docks at Leesville Lake. The water

elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. This is to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story. Dock height may be increased to 33 feet with a high density commercial setback (Figure 4).

16. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock.
17. Lift areas used for storing personal watercraft (e.g. jet skis, wave runners, etc.) shall not be counted in the total number of slips for the dock as long as the lift area dimensions are not such that it could be used or modified to dock a boat. These lift areas shall be included in the overall square footage of the structure.
18. The minimum fairway between groups of dock slips or ramps shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance.
19. Docks, piers and similar structures constructed within the 795 contour NGVD of Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake prior to the implementation of the Shoreline Management Plan do not need to be modified to meet the new requirements. These structures may continue to exist despite their nonconforming nature and may be expanded provided the nonconforming aspect of the structure is not increased. Maintenance of all structures is encouraged. If maintenance requires more than 50% of the physical structure, excluding the pilings, to be replaced or repaired, the structure must conform to the new requirements. If pilings need to be replaced, then the footprint of the structure may be replaced provided documentation has been provided detailing the structure.

Property owners of nonconforming dock structures that have been destroyed by accident, natural event, or or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits. Any structure that has been destroyed for more than two (2) years shall be rebuilt in conformance to the provisions of this plan.

Property owners of nonconforming structures other than docks that are within the project boundary and were constructed prior to the implementation of the Shoreline Management Plan that have been destroyed by accident, natural event, or the intentional or wrongful act of another party may replace the destroyed structure with another structure of the same footprint upon receipt of a permit from AEP and any other necessary permits provided that it is not feasible to relocate the structure outside the project boundary and it does not create a navigation, safety or environmental

concern. Permanent sanitation facilities and habitable structures will not be allowed to be rebuilt.

To be considered as part of the nonconforming structures provisions of the Shoreline Management Plan, property owners must submit documentation of any structures that have been built below the 795 contour NGVD on Smith Mountain Lake and the 613 foot contour NGVD on Leesville Lake. Documentation may consist of photographic documentation along with any associated drawings. Such documentation shall be provided to AEP by August 31, 2005. AEP will then issue an acknowledgement of adequacy of documentation.

#### Courtesy pier

1. Courtesy piers shall meet all local, state and federal requirements.
2. All piers must comply with ADA standards and ADAAG recreation facility guidelines.
3. Courtesy piers shall not exceed a maximum of 1/3 cove width or 100 feet in length, whichever is less, as measured from the base elevation. Verifying the location of the base elevation is the responsibility of the landowner (Figure 1).
4. The pier owner shall sign an acknowledgement when obtaining his or her dock permit that water depths may not be adequate for accessing the lake during times of low inflow or drought or for any other reason the reservoir is drawn down.
5. The maximum size of pier structures located within the base elevation is 1,200 square feet (Figure 2).
6. Piers shall not block, obstruct or otherwise impede the line of vision between public channel markers or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a public channel marker or other navigational aid. Individuals can apply to the appropriate permitting authority for relocation of navigational aids that would allow for pier/dock location that would be precluded by existing navigational aids.
7. No enclosures shall be allowed on the courtesy pier. A screened area is considered an enclosure.
8. Structures located between the project boundary and the base elevation shall be limited to a structure that provides access to the dock. This includes a stairway, ramp or landing that connects the dock to the land. The maximum width of this structure shall be 12 feet.
9. The courtesy pier shall be uncovered.

10. White reflective tape or white reflectors are required on each furthestmost waterward corner of the dock and every 20 feet on both sides of the dock
11. Ramps are allowed in low density public use areas for public service uses.
12. All structures and ramps located within the project boundary must be located within the dock easement lines and must maintain a setback of at least 30 feet (Figure 3).
13. The minimum fairway between groups of dock slips or ramps shall be 2 times the length of the adjacent slip. If the two structures contain slips of different sizes, the larger slip size shall be used to determine the fairway distance.

#### *2.5.5 Fishing and Observation Piers for Public Use*

AEP encourages public fishing access at all types of shoreline development. The following regulations apply to all public fishing piers.

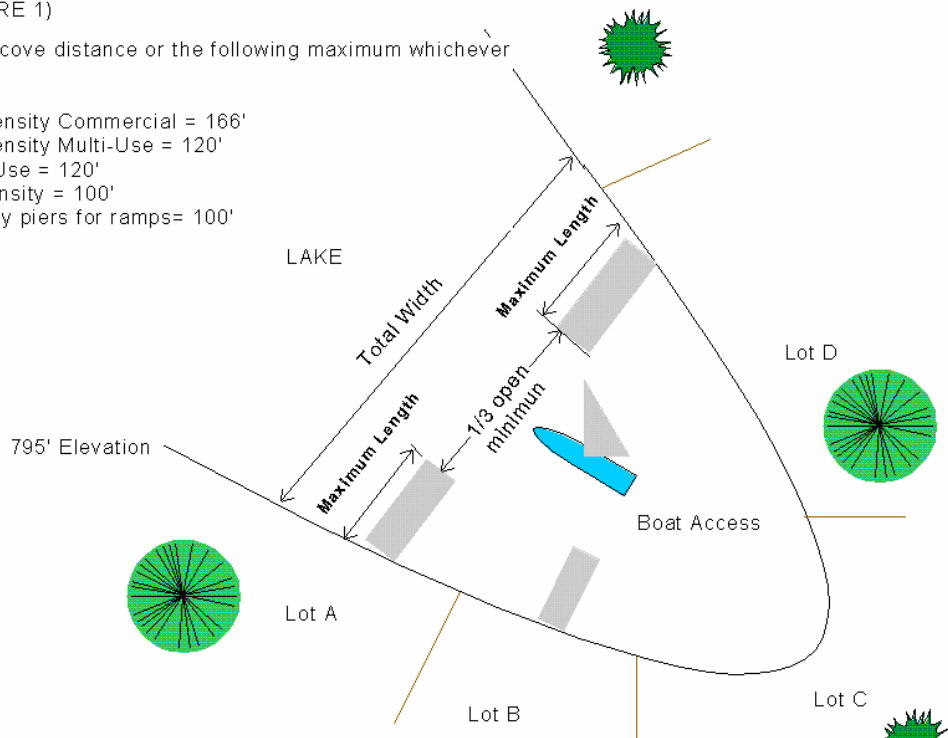
1. All shoreline distances are measured at the base elevation. Verifying the location of the base elevation and all appropriate distances is the responsibility of the applicant.
2. The project boundary for Smith Mountain Lake is the 800-foot contour NGVD and for Leesville Lake is the 620-foot contour NGVD. These respective contours are hereafter referred to as the project boundary.
3. Piers shall meet all local, state and federal requirements.
4. Fishing piers may extend a maximum distance of 120 feet into the lake as measured from base elevation.
5. Docks must be constructed perpendicular to the shoreline.
6. The maximum height, as measured from the base elevation to highest point on the structure, shall be 19 feet for a structure with a flat roof and 26 feet for a structure with a pitched roof. At Leesville Lake, roofs shall only be allowed on floating docks. The water elevation at Smith Mountain Lake can rise up to and occasionally over the 800-foot contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot contour NGVD as measured at the dam. This is to be taken into consideration when designing the overall height of the boat dock. The boat dock may have a roof but no additional roofs or roofed areas shall be allowed to create a second story (Figure 4).
7. In the event that 2 or more fishing and observation piers are adjacent to one another, a minimum fairway of 50 feet is required.
8. A maximum of 2,500 square feet is allowed for a fishing pier.

9. All applicants must consider ADA standards and ADAAG recreation facility guidelines. Applicants must adhere to any applicable laws and regulations.

**MAX. DOCK LENGTHS  
(FIGURE 1)**

1/3 the cove distance or the following maximum whichever is less.

- High Density Commercial = 166'
- High Density Multi-Use = 120'
- Public Use = 120'
- Low Density = 100'
- Courtesy piers for ramps = 100'

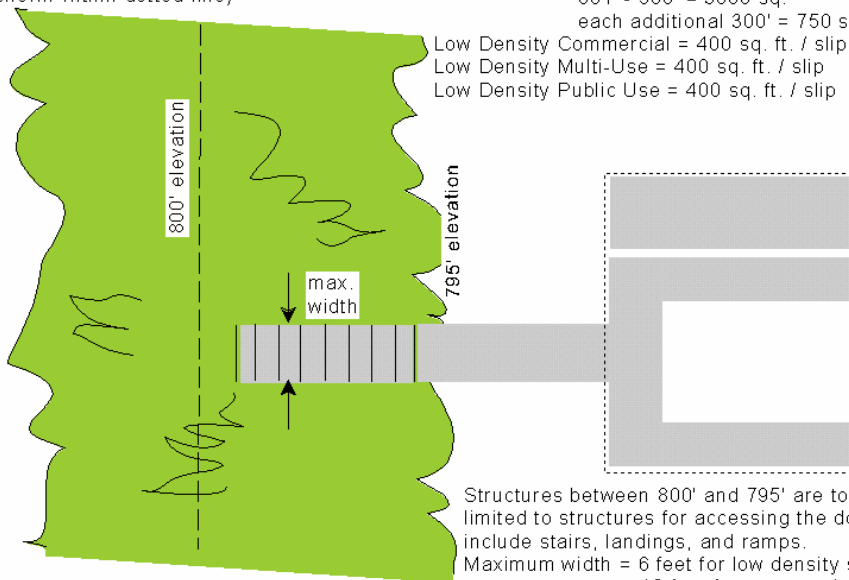


DRAWING NOT TO SCALE

**MAXIMUM SIZE REQUIREMENTS  
(FIGURE 2)**

(Applies to structures within 795', including slip area but excluding the walkway, as shown within dotted line)

- High Density Multi-Use = 400 sq. ft. / slip
- Low Density Single Family = Square footage depends on frontage
  - 100' - 300' = 1500 sq. ft. / 2 slips
  - 301' - 600' = 2250 sq. ft. / 3 slips
  - 601' - 900' = 3000 sq. ft.
  - each additional 300' = 750 sq. ft. / 1 slip
- Low Density Commercial = 400 sq. ft. / slip
- Low Density Multi-Use = 400 sq. ft. / slip
- Low Density Public Use = 400 sq. ft. / slip

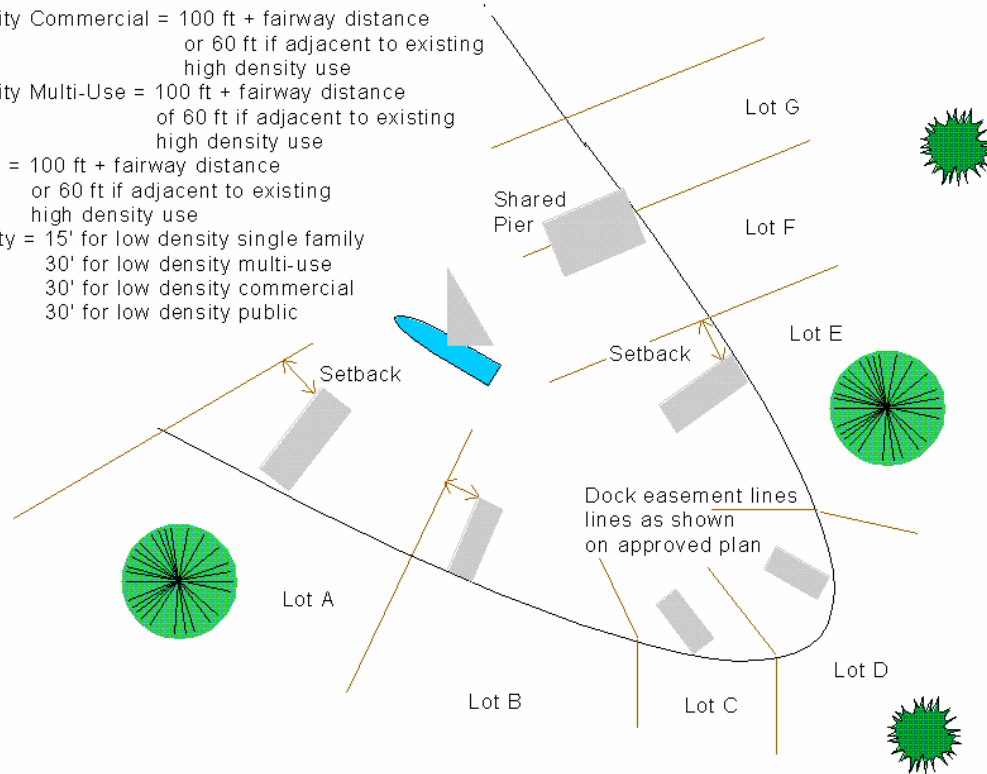


Structures between 800' and 795' are to be limited to structures for accessing the dock. Access structures include stairs, landings, and ramps.  
 Maximum width = 6 feet for low density single family  
 = 12 feet for commercial, multi-use and public uses

Conceptual Drawing - Not to Scale

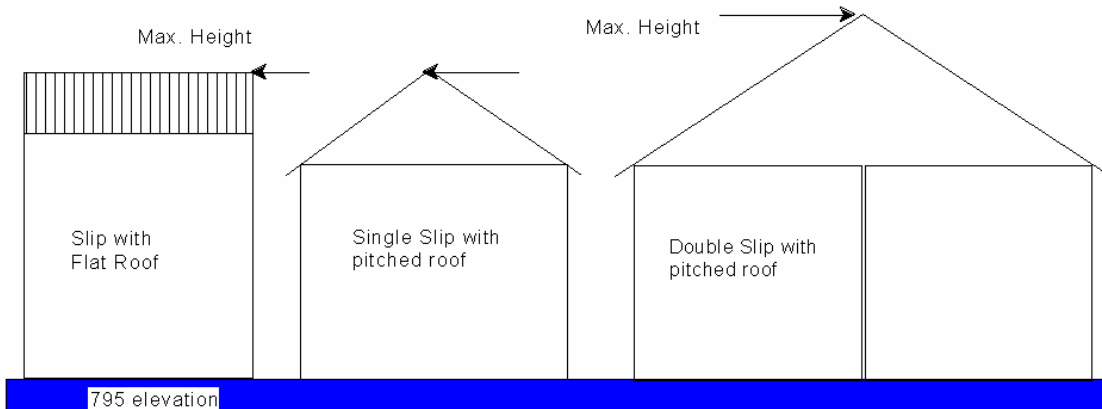
DOCK EASEMENT LINES / EXTENDED LOT LINES AND SETBACKS (FIGURE 3)

- High Density Commercial = 100 ft + fairway distance  
or 60 ft if adjacent to existing high density use
- High Density Multi-Use = 100 ft + fairway distance  
of 60 ft if adjacent to existing high density use
- Public Use = 100 ft + fairway distance  
or 60 ft if adjacent to existing high density use
- Low Density = 15' for low density single family  
30' for low density multi-use  
30' for low density commercial  
30' for low density public



MAXIMUM HEIGHT OF STRUCTURES (FIGURE 4)

- High Density Commercial = 33 ft.
- High Density Multi-Use = 19 ft. for flat roof, 26 feet for pitched roof
- Low Density Single Family = 19 ft. for flat roof and 26 ft. for pitched roof
- Low Density Multi-Use = 19 ft. for flat roof and 26 ft. for pitched roof
- Low Density Commercial = 19 ft. for flat roof and 26 ft if low density setbacks,  
33 ft. if high density setbacks



Conceptual Drawing - not to scale

### *2.5.6 Impact Minimization Zone Regulations*

Shoreline areas that have important resources have been identified. Development may be allowed in these areas but the resources must be protected. Individuals that wish to build any structures, conduct land disturbance, or stabilize the shoreline within the project boundary in these areas must apply to AEP and follow the variance process outlined in section 3.3.3.

### *2.5.7 Flotation Materials Regulations*

The aesthetic qualities along the shoreline of Smith Mountain Lake and Leesville Lake should be maintained. An issue concerning the proper maintenance of docks along the lakes is dock flotation. The following requirement applies to all development within all of the shoreline classifications:

All new construction shall utilize puncture resistant material, including coated extruded polystyrene foam enclosed by pressure treated wood or some other non-corrosive material. The use of barrels, beaded styrofoam, or any other materials is prohibited.

### *2.5.8 Shoreline Stabilization Restrictions*

AEP and the steering committee have developed shoreline stabilization requirements that consist of the following:

- Shoreline stabilization will only be permitted in areas with active erosion, and no material is to be placed in excess of the minimum needed for erosion control.
- If existing vegetation is sufficient to control erosion and the shoreline is not actively eroding, existing vegetation shall remain in place.
- The planting of vegetation to control erosion is encouraged.
- Appropriate sediment and erosion controls must be used and maintained in compliance with the Virginia Erosion and Sediment Control Handbook. The Handbook is available on-line at <http://www.dcr.state.va.us/sw/e&s-ftp.htm>.
- Shoreline stabilization will not be permitted in Conservation/Environmental areas.
- Bulkheads (i.e vertical walls) are prohibited, unless a variance is obtained.
- If a bulkhead is approved, rip-rap will be required at the toe of the structure.
- Shoreline stabilization < 500 linear feet would qualify under the COE nationwide permit #13 (bank stabilization) provided the activity is part of a single and complete project, does not impact wetland and/or submerged aquatic vegetation and is the minimum needed for erosion control. While this does not require notification to the COE, an AEP permit would be required prior to commencement of all work. An individual permit is required from the COE and AEP for any work that does not fall into this category.
- Shoreline stabilization > 500 linear feet requires filing the joint COE/AEP application with the appropriate agencies. A pre-application site visit is recommended prior to the submission of the application.

- Sand beaches are prohibited, except for public use areas or with a variance in High Density Commercial and High Density Multi-Use areas.
- Existing beaches may be maintained, but not expanded. No placement of sand is permitted below the the 795' contour on Smith Mountain Lake and the 613' contour for Leesville Lake. If it is determined that the sand has caused a decrease in the depth of water in the adjacent shoreline area, the beach owner may be required to remove the beach material from within the project boundary.
- Rip-rap shall be clean, solid rock and consist of a minimum of Class I sized material.
- Rip-rap shall be installed on top of a filter cloth barrier, as specified under the County guidelines.
- Rip-rap shall be installed at a maximum of 3:1 slope for the final grade.
- Shoreline stabilization must meet any state and federal requirements. The toe of the riprap shall be buried a minimum of one foot below 793' contour NGVD for Smith Mountain Lake and to the 600'' contour NGVD for Leesville Lake.
- Jetties are prohibited.
- Any necessary local, state or federal permits must be obtained prior to the commencement of any work.

The agencies and governments that impose restrictions or require permits for shoreline protection include local county governments and federal agencies. The Virginia Department of Conservation and Recreation requires that local governments have erosion and sediment control programs. Local governments issue land disturbing permits after approving an applicant's sediment and erosion control plan.

All shoreline stabilization must be approved by the appropriate permitting authority. Applications for shoreline stabilization must include any additional required permits including but not limited to those described above.

#### *2.5.9 Dredging and/or Excavation Restrictions (Below base elevation)*

Federal agencies and state departments can impose restrictions and/or require permits for dredging activities within the project boundary. The ACOE is the federal agency responsible for overseeing these type of activities and/or the placement of fill and/or dredged materials in the waterway and/or wetlands through the issuance of a Section 10 Permit (Rivers and Harbor Act of 1899) or a Section 404 Permit (Clean Water Act), which is intended to protect navigable waterways and wetlands. The Virginia Department of Environmental Quality (VDEQ) is the state department responsible for overseeing activities (for projects greater than 5,000 cubic yards of material) and/or wetlands (greater than 1/10 acre). However, the VDEQ administers a Virginia Water Protection permit (WPP) for construction, dredging, impoundments, channelization, and filling in navigable waters and wetlands statewide, in conjunction with the ACOE. This WPP program also serves as Virginia's Section 401 certification program for federal Section 404 permits. Application is made through the Joint Permit Application process for concurrent federal and state project review. This application will be forwarded to the VDH and the DGIF for review. Dredging restrictions that apply within the project boundary include:

- Dredging and or excavation < 25 cubic yards would fall under the ACOE nationwide permit #19 (minor dredging) provided the activity is part of a single complete project, and does not impact wetland and/or submerged aquatic vegetation. While this does not require notification to the ACOE, notification to AEP would be required 10 working days prior to commencement of all maintenance dredging within an existing fairway or an existing boat slip. An individual permit is required from AEP and the ACOE for any dredging that does not fall into this category.
- Dredging and/or excavation activity > 25 cubic yards requires filing the joint ACOE and AEP application. A pre-application site visit is recommended prior to the submission of the application.
- Dredging and/or excavation of all wetland areas is prohibited.
- Dredging and/or excavation near any wetland areas would require sufficient buffers to insure no adverse impacts to those areas.
- Dredging and/or excavation to a depth greater than 789' elevation is prohibited. Only accumulated sediment may be removed, and the original lake bottom may not be disturbed.
- Dredging and/or excavation between elevations 795' and 793' is prohibited.
- Dredging and/or excavation may not be performed between March 1 and June 30 of each year.
- Dredged and/or excavated material must be deposited outside the project boundary to conform to all federal, state, and local regulations.
- Dredging and or excavation requiring ACOE and/or VDEQ approval must also be approved by AEP. Applications for an AEP permit must also include any additional required permits.

#### *2.5.10 Excavation (between base elevation and the project boundary) and Filling Restrictions*

Excavating (including digging, scooping, or any other method of removing earth material) between the base elevation and project boundary is prohibited with the exception of only the minimal amounts of excavation necessary for the proper design and installation of an erosion control structure, boat ramp or other approved structure. A county erosion and sediment control permit may be required.

Filling (including the depositing or stockpiling of material) within the project boundary is prohibited with the exception of only the minimal amounts of fill necessary for the proper design and installation of an erosion control structure. All fill material, including riprap, must be free of pollutants. A county erosion and sediment control permit may be required.

#### *2.5.11 Vegetative Cover Regulations*

Shoreline vegetation is important to the aesthetic qualities, environmental health, and water quality of Smith Mountain Lake and Leesville Lake. Vegetation enhances the

natural beauty of the lakes, helps prevent water pollution and provides habitat for birds, mammals, and fish. In addition to electric power generation, the lakes are used for recreation and water consumption by many residents in the adjacent counties. These guidelines are intended to provide adjacent landowners the opportunity to use property within the project boundary appropriately, while protecting the aesthetic and environmental characteristics and water quality of the lakes. Vegetation within the project boundary is a key component of each of these values. The importance of the lakes to the economies of the four counties and the surrounding region are clearly understood and appreciated. The scenic, recreational, and environmental values will allow the the lakes to continue to play an important role in the local and regional economies.

Vegetation within the project boundary must be preserved if present. Ground disturbing activities in this area must be minimal in order to maintain the function of the buffer. A property owner may apply for a permit to modify the existing vegetative cover by removing vegetation for the following reasons:

- 1) Provide for reasonable view of the water
- 2) Construct access paths to the shoreline and/or dock
- 3) Construct erosion control measures along the shoreline
- 4) General maintenance to the vegetated area

Individuals may be required to plant or pay for the planting of vegetative materials within the project boundary in the event that vegetation is removed without a permit.

If an area is already cleared and no vegetation other than grass is present, the property owner may continue to maintain the lawn. However, it is encouraged that a vegetative buffer be reestablished in order to protect the water quality of the lake and decrease the amount of runoff from chemicals used on the lawn.

- 1) Provide for reasonable view of the water

Modifications are allowed to the vegetation within the project boundary to provide a view of the water. Any modifications made must not impair the overall function of the vegetated buffer. If vegetated buffer function will be impaired, a plan for replacement plantings will be considered.

Trees and shrubs may be pruned or removed to provide a view of the water. If the trees or shrubs are removed, they shall be replaced with other vegetation as detailed in Table 2.5-2 in order to maintain the function of the buffer. The trees or shrubs that are removed should be replaced with native plants. A list of native plants can be found in Appendix E.

In multi-family developments, each unit should not expect a view of the water if it requires the removal of vegetation. A view of the water should be provided from a common area instead.

**Table 2.5-2. Vegetation Replacement Rates**

<b>Vegetation Removed</b>	<b>Preferred Replacement Vegetation</b>	<b>Acceptable Alternative Vegetation</b>
1 tree or sapling ½"-2 1/2" caliper	1 tree @ equal caliper or greater	Or 2 large shrubs @ 3'-4' Or 10 small shrubs or woody groundcover * @ 15"-18"
1 tree > 2 1/2" caliper	1 tree @ 1 3/4" - 2" caliper per every 2" caliper of tree removed (ex: a 12" cal. tree would require 6 trees to replace it)	Or 75% trees @ 1 3/4" - 2" and 25% large shrubs @ 3'-4' per every 2" caliper of tree removed. (ex: an 8" cal. tree removed would require 3 trees and 1 large shrub) Or 10 small shrubs or woody groundcover @ 15"-18" per 2" caliper of tree removed (ex: a 9" caliper tree removed requires 50 small shrubs .)
1 large shrub	1 large shrub @ 3'-4'	Or 5 small shrubs or woody groundcover @ 15"-18"
* Woody groundcover is considered to be a woody, spreading shrub that remains close to the ground, to 18" high, such as a shore juniper, juniperus conferta. Vines may not be considered "woody groundcover" for the purpose of vegetation replacement.		

2) Construct Access Paths to the Shoreline and/or Dock

Modifications are allowed to the vegetation within the project boundary to provide access to the shoreline and/or dock. Any modifications made must not impair the overall function of the vegetated buffer. If vegetated buffer function will be impaired, a plan for replacement plantings will be considered.

Trees and shrubs may be pruned or removed to construct access paths. If the trees or shrubs are removed, they shall be replaced with other vegetation as detailed in Table 2.5-2 in order to maintain the function of the buffer. The trees or shrubs that are removed should be replaced with native plants. A list of native plants can be found in Appendix E.

To minimize the impairment to the overall function of the vegetative buffer and to minimize erosion on the access path, vegetation or additional mulch should be used to cover the exposed soil. If paving material is needed, gravel, stepping stones, or other permeable material should be used. Three or four inches of mulch is the preferred method. It is less expensive, can readily be replaced and holds water. It also adds to the ability for the buffer to remove nitrogen.

3) Construct erosion control measures along the shoreline

Modifications are allowed to the vegetation within the project boundary in order to construct erosion control measures along the shoreline. Any modifications made must not impair the overall function of the vegetated buffer. If vegetated buffer function will be impaired, a plan for replacement plantings will be considered.

Trees and shrubs may be pruned or removed to construct erosion control measures. If the trees or shrubs are removed, they shall be replaced with other vegetation as detailed in Table 2.5-2 in order to maintain the function of the buffer. The trees or shrubs that are removed should be replaced with native plants. A list of native plants can be found in Appendix E.

Vegetation on steep slopes should be maintained in order to help stabilize the bank and prevent erosion. Removal of trees on a steep slope can increase the probability of a slope failure.

4) General maintenance to the vegetated area

Modifications are allowed to the vegetation within the project boundary in order to keep the vegetation healthy and ensure the buffer functions properly.

Dead, diseased or dying trees or shrubbery and non-native invasive weeds may be removed. In addition, trees that are a hazard to life or property may be removed. If the trees or shrubs are removed, they shall be replaced with other vegetation as detailed in Table 2.5-2 in order to maintain the function of the buffer. The trees or shrubs that are removed should be replaced with native plants. A list of native plants can be found in Appendix E.

A permit for the removal of a tree that is a hazard to life or property is not required but documentation of the removal must be sent to AEP within 30 days of the action.

Individuals may be required to plant or pay for the planting of vegetative materials within the project boundary in the event that vegetation is removed without a permit<sup>1</sup>.

*2.5.12 Woody Debris Regulations*

Woody debris is defined as trees and woody material that extend from the shoreline into the lake. The most common type of woody debris is fallen trees where the roots of the trees are still attached or resting upon the shoreline. Woody debris provides important habitat for fish and wildlife and shall be protected. The removal of existing submerged woody debris from the lake that has a diameter of 10 inches or greater at the base of the trunk is discouraged, unless such debris constitutes a navigational or public safety hazard.

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<sup>1</sup> Commonwealth of Virginia Chesapeake Bay Local Assistance Department Draft Riparian Buffer Guidance Manual (as of 6/24/03)

In the placement and construction of new docks, the removal of woody debris should be minimized. Applicants for shoreline development may be required to mitigate for the removal of woody debris from the lake.

#### *2.5.13 Floating Material Regulations*

Removal of floating debris and shoreline litter, such as floating logs, paper, plastic, and other unnatural forms of garbage or debris, does not require AEP approval as long as the method of removal complies with the other requirements of this plan.

#### *2.5.14 Protection of Cultural Resources*

In the event that any previously known or unknown cultural resource materials are discovered, all work associated with a permit must be stopped. AEP must be notified and consultation with SHPO must be completed before any further work within the project boundary will be allowed to continue.

### **3.0 SMP IMPLEMENTATION AND REVIEW**

#### **3.1 Permitting Responsibilities**

An applicant seeking permission for an activity within the project boundary must prepare an application to AEP and receive permission prior to beginning the proposed activity. The application must have the following information (as a minimum) to begin a review:

- ❑ Applicant and owner's name, addresses, telephone numbers
- ❑ Lake name
- ❑ A map showing the location of the property. (Ex. Lake map)
- ❑ County tax map and parcel number.
- ❑ A drawing showing the location and dimensions of the proposed work including the following:
  - The location of the project boundary
  - The location of the base elevation
  - The length of shoreline
  - All property lines
  - Dock easement lines
- ❑ Docks, Piers and Similar Structures
  - Distances from dock easement lines
  - Approximate location of and distance to adjacent structures
  - Size of enclosure
  - Number of slips
  - Distance to any navigational aids within 500 feet
  - Intended users (e.g. residential lot owners, yacht clubs, general public, etc.)
- ❑ Shoreline Stabilization
  - Proof of active erosion
  - Type and size of stabilization material
  - Depth of buried toe
  - Slope
  - Length
  - Types of planting
- ❑ Dredging
  - Location of existing structures
  - Area to be dredged
  - Location of spoil area
  - Location of any wetlands
  - Amount to be removed
- ❑ Vegetative Cover
  - Size and location of vegetation to be removed
  - Revegetation plan, if applicable.

AEP will review the application for completeness. If the application is incomplete, AEP may request additional information from the applicant. Upon finding the application complete, AEP will determine if the proposed action is consistent with the classifications

and in compliance with the regulations in this Plan. Permission for an activity within the project boundary shall be contingent upon receipt of appropriate county, State, and Federal permits. Copies of all permits including county dock or zoning permits, building permits, and upon completion of the structure, certification of the county's final inspection shall be submitted to AEP. The applicant must notify AEP when construction is initiated and completed so that compliance can be verified. Projects will be considered complete when 100% of all construction activities are completed. The activities will be inspected periodically for compliance with use agreement requirements and other regulations.

### **3.2 Fees**

To meet the intent of AEP's license article 41 and additional license requirements, AEP may, among other things, establish a program for granting permission for certain types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover AEP's costs of administering the permit program. Any fees implemented by AEP would be commensurate with the expenses of implementing the SMP.

### **3.3 Variance Process**

There may be cases that warrant exception from the regulations and the classifications in this SMP. AEP will consider whether variance from the SMP is warranted on a case-by-case basis. AEP will provide a list to the FERC on an annual basis that outlines any variances granted over the previous 12 months. The list will be provided to the FERC by January 31 of each year reporting the activities of the previous year. There are 4 types of variance processes, which are outlined as follows:

#### *3.3.1 Low Density Use Variances*

Variances for structures that fall within the low density use shoreline classification can be approved by AEP. To obtain a variance, the applicant must show a need for the variance and that there are no alternatives that would allow the individual to meet the guidelines. Variances will be considered on a case-by-case basis. Variances will only be considered for changes that affect an individual's ability to utilize the dock (e.g. length, location, setback, distance between docks and extended property lines) and not for changing the shoreline classification. For example, expanding the maximum length to reach a minimum water depth could be considered under this variance procedure.

Individuals must make application to AEP for a variance. As part of the application, the applicant shall include receipts from certified letters indicating notification in writing to all adjoining property owners of the applicant's intent. The adjacent property owners, along with the appropriate county shall be given 30 days to provide written comments to AEP prior to AEP finalizing its review. Comments will be available to the public. If the variance request fits within the license requirements and the intent of this SMP then permission will be granted. A variance is not required for a low density single family

residential dock that encroaches the set back, the extended, or the actual property line provided the owner of the adjoining lot indicates in a written and notarized agreement of his/her approval of the encroachment and this agreement is provided with the dock application.

### *3.3.2 Agency Review Variances*

Variances for structures that fall within the High Density Commercial, High Density Multi-Use, Public Use shoreline classifications, shoreline stabilization, beaches, ramps in a Low Density Classification, boardwalks and dredging can be approved by AEP. To obtain a variance, the applicant must show a need for the variance and that there are no alternatives that would allow the individual to meet the guidelines. Variances will be considered on a case-by-case basis. Variances will be considered for changes that affect an individual's ability to utilize the dock (e.g. length, location setback, distance between docks and extended property lines.) For example, expanding the maximum length to reach a minimum water depth could be considered under this variance procedure.

Individuals must make application to AEP for a variance. AEP will make a determination as to whether or not the proposed variance fits within its license requirements and the intent of this SMP. As part of the application, the applicant shall include receipts from certified letters indicating in writing to all adjoining property owners of the applicant's intent. The adjacent property owners along with the appropriate county shall be given 30 days to provide comments to AEP prior to AEP finalizing its review. Comments will be available to the public. AEP will forward the variance request to the resource agencies for comments, such agencies will have 45 days to comment or request an extension to provide comments. Once comments are received and addressed, AEP will either grant permission or provide a notice to the applicant denying the variance request.

### *3.3.3 IMZ Variances*

Development within the IMZ shoreline classification must be carefully considered to ensure protection of the important resources contained along the shoreline in these areas. Specific mitigation requirements have been outlined for each type of resource that may be found in the IMZ. Individuals that wish to develop shoreline structures within an IMZ must contact AEP to determine the type of resource present. Resource agencies will be contacted for comment on the application, such agencies will have 45 days to comment or request an extension to provide comments. Table 3.3-1 outlines the mitigation requirements for each type of resource.

**Table 3.3-1. IMZ Mitigation Requirements**

<b>IMZ Parameters</b>	<b>Mitigation without FERC Approval</b>
Wetlands less than 100 feet	Develop a plan to protect these wetlands from the proposed development and document concurrence by the appropriate agencies with regulatory authority .
Large woody debris	Develop a plan to protect woody debris from the proposed development and obtain VDGIF concurrence with the plan.
Cultural resource sites	VA SHPO concurrence as evidenced by a letter from the VA SHPO approving ground-disturbing activity.
Undeveloped islands	Develop a plan to protect the land within the project boundary of these islands and document VDGIF concurrence with the plan.
Scenic areas	Only courtesy docks are allowed in these areas.

#### 3.3.4 FERC Variance

Variances for changes in shoreline classification, construction in a Conservation / Environmental classification, dredging activities not conforming to the specifications outlined in this plan, and alteration of the project boundary must be approved by the FERC.

Individuals must make application to AEP for a variance. AEP will perform an initial review to ensure that the application contains all the information that should be required by the FERC. In addition, AEP will make a determination as to whether or not the proposed variance fits within its license requirements and the intent of this SMP. As part of the application, the applicant shall include receipts from certified letters indicating notification in writing to all adjoining property owners of the applicant’s intent. The adjacent property owners along with the appropriate county shall be given 30 days to provide comments to AEP prior to AEP finalizing its review. Comments will be available to the public. Applications must also conform to the FERC brochure entitled “Guidance for Preparing Shoreline Development Applications” (Appendix F). AEP will forward the variance request to the resource agencies for comments, such agencies will have 45 days to comment or request an extension to provide comments. Once comments are received and resolved, the variance request and the agency comments will be reviewed by AEP and a decision will be made as to whether it will be forwarded to the FERC for action.

### 3.4 Monitoring and Enforcement Procedures

AEP manages the Smith Mountain Pumped Storage Project in accordance with the terms of its license and the applicable FERC rules and regulations. This responsibility includes public recreation access and protecting important natural, environmental, and scenic

resources. AEP allows public access to Project lands and waters for purposes of navigation and recreation, so far as it is consistent with the proper operation of the Project and protects and enhances the scenic, recreational, and environmental values of the project.

Any use of or change in the features or vegetation on Project lands and waters without specific authorization from AEP is prohibited and considered an encroachment.

If a permitted use and occupancy violates any condition of this SMP or any other condition imposed by AEP 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 SMP is violated, AEP shall take any lawful action necessary to correct the violation. For a permitted use or occupancy that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any noncomplying structures and facilities.

### **3.5 SMP Plan Review and Update**

AEP will initially review the SMP in 5 years following FERC approval. Subsequent reviews will be performed every 5 years. The review will be accomplished through consultation with a group of stakeholders similar to the steering committee. Revisions will be made to the plan based on this consultation. Further, the update will incorporate any revisions that are deemed necessary in order to protect the public recreation opportunities, aesthetic beauty, environmental features, and power production capability at the project. Shoreline Management Plan updates shall be submitted to the FERC for approval.