

4. If Appalachian 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.

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, then 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 include provisions for food services, convenience retailing including petroleum dispensing and storage, dry storage of watercraft and other activities customarily associated with marinas, campgrounds, private recreation areas or private clubs. 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 residential type dwellings that are located within a parcel of land that was contiguous to the project boundary at the time the Smith Mountain Project was developed and that has been further subdivided into individual lots. Property lines may not be vacated in order to be considered contiguous to the project boundary at the time the Project was developed.

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 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, 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 four (4) types of development. Any of the four (4) types are appropriate for these areas.
 - Low Density Single Family 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 floating docks.
 - 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 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, 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 including but not limited to debris removal off-loading sites.
- Island Protection – Project lands surrounded on all sides by water. These areas are considered to be resources in need of protection because of their location, potential for erosion, scenic beauty, and contributions to aquatic and terrestrial wildlife. In these areas, development inside the project boundary would be limited, but possible, based on a review of the related plans by appropriate local, state, and federal agencies and any mitigation for any impacts to resources.
- Resource Protection Area – 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 important resources from an environmental, scenic, cultural, or recreational standpoint. The scenic resources 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, streams

wetlands, scrub-shrub habitat and cultural sites. The Resource Protection Area 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 limited, but possible, based on a review of the related plans by appropriate local, state, and federal agencies and mitigation for any impacts to resources.

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	21.4	4.2%
High Density Multi-Use	31.5	6.2%
Public Use	25.5	5.0%
Low Density Use	372.1	73.2%
Island Protection	5.2	1.0%
Resource Protection Area	52.3	10.3%

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

Shoreline classification	Total miles	Percentage
High Density Commercial	0.2	0.2%
High Density Multi-Use	20.7	18.4%
Public Use	0.2	0.2%
Low Density Use	40.4	36.0%
Island Protection	1.0	0.9%
Resource Protection Area	49.7	44.3%

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 December 2005.

High Density Commercial

- Shoreline with commercial marina facilities that existed on August 31, 2003, or
- All shoreline that is between Hales Ford Bridge and a point ½ mile from the bridge either upstream or downstream or
- Shoreline that was zoned for commercial use as of August 31, 2003.

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, or
- Multi-family projects that received FERC approval prior to the approval of the SMP (July 5, 2005).

* 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.

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 continue to exist in these areas.

Low Density Use

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

Island Protection

- Areas identified as islands.

Resource Protection Area

- Areas classified as large woody debris (i.e. areas of large downed trees with a density of more than five (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
- Area adjacent to Smith Mountain Wildlife Management Area, or
- Shoreline adjacent to areas identified as scenic by majority of questionnaire respondents in a survey taken prior to the 2003 SMP (e.g. Smith Mountain and the cliffs on Blackwater River west of its confluence with Standiford Creek), or
- Areas identified as Roanoke Logperch Habitat either by the U.S. Fish and Wildlife Service or the Virginia Department of Game and Inland Fisheries, or
- Areas identified as stream beds, or
- Areas that include wetlands, or
- Areas that include scrub shrub habitat areas, 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 resource protection areas, any of the parameters may be met and will override any of the other classifications.

2.5 Regulations

Since every possible scenario cannot be anticipated, Appalachian reserves the right to issue decisions in situations not specifically covered by these regulations and will do so in a manner that protects and enhances the scenic, recreational, and environmental values of the Smith Mountain Project. Local, state, and federal agencies may be consulted during such decision making processes, as appropriate.

2.5.1 High Density Commercial Regulations

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 moored, as well as obtain petroleum. Outside the Project boundaries associated facilities include provisions for food services or convenience retailing including petroleum dispensing and storage, dry storage of watercraft and other activities customarily associated with marinas, campgrounds, private recreation areas and private clubs. The High Density Commercial classification 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-foot elevation contour line National Geodetic Vertical Datum (NGVD) for Smith Mountain Lake and the 600-foot elevation 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 elevation contour NGVD and for Leesville Lake, the project boundary is the 620-foot elevation contour NGVD, except in those areas defined in the Project License by survey above the referenced contour elevation.
3. All facilities shall comply with all applicable local, state, and federal regulations. The applicant must obtain all necessary governmental permits or approvals and written authorization from Appalachian prior to beginning any activity/construction within the Project boundary.

36. During the period from April 15 through June 15, the locations of the proposed work shall be inspected for the presence of largemouth bass nests. If a largemouth bass nest is detected where the work is to take place, then the work shall be modified to not disturb the nest or the work delayed until after June 15.⁷
37. Structures (including shoreline stabilization) adjacent to shoreline classified as Resource Protection Area shall maintain a setback of 30 feet from the the edge of the Resource Protection Area classification in order to ensure there is no impact to sensitive areas.⁸

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 residential type dwellings that are located within a parcel of land that was contiguous to the Project boundary at the time the Smith Mountain Project was developed and that has been further subdivided into individual lots. Property lines may not be vacated in order to be considered contiguous to the Project boundary at the time the Project was developed.

The High Density Multi-Use classification allows for access to the lakes for more than one (1) property owner. Multi-use facilities may provide access to the lake via one (1) of two (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 two (2) options for High Density Multi-Use are community docks or boat ramps with courtesy pier. The High-Density Multi-Use classification includes all of these types of facilities that have a dock density of greater than two (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 elevation contour NGVD and for Leesville Lake, the Project boundary is the 620-foot elevation contour NGVD, except in those areas defined in the Project License by survey above the referenced contour elevation.
3. All facilities shall comply with all applicable local, state, and federal regulations. The applicant must obtain all necessary governmental permits or approvals and written authorization from Appalachian prior to beginning any activity/construction within the Project boundary.

⁷ FERC Order Issued February 23, 2007

⁸ FERC Order Issued December 15, 2009

4. Any dredging that occurs must meet all county, state, federal, and Appalachian dredging requirements. Any individual that dredges within the Project boundary without proper approvals could be subject to a fine or be required to perform mitigation.
5. 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.
6. Docks shall not block, obstruct, or otherwise impede the line of vision between lateral marks or the visibility of other public navigational aids and shall not encroach closer than thirty (30) feet to a lateral mark or other navigational aid.
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 elevation as determined by the method in Appendix E.
8. In all cases there shall be a minimum watercraft passage lane of 30 feet unless there is a boat ramp (excluding existing nonconforming ramps that serve a single-family residence) in the area toward the end of the cove in which case the minimum watercraft passage lane shall increase to 50 feet.
9. The minimum fairway between groups of dock slips shall be two (2) times the length of the adjacent slip. If the two (2) 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, then the minimum distance shall be 50 feet.
10. Structures located between the Project boundary and the base elevation shall be limited to a structure that provides access to the dock and pilings or cables installed for purposes of enhancing stability of a floating structure. Structures that provide access to the dock include a walkway, stairway, or landing that connects the dock to the land. Lift systems or trams designed for individual transportation may be installed provided medical documentation has been provided to Appalachian that such system is required for the property owner to access the reservoir. The maximum width of access structure, including any tram, shall be not more than 12 feet and that portion of the access structure constructed between the Project boundary and the base elevation at Smith Mountain Lake and between the Project boundary and the 613-foot elevation contour NGVD at Leesville Lake shall be constructed perpendicular to the base elevation to the greatest extent possible. Pilings may be added to aid with stability of the structure if adjacent to a steep lot; however, the area between the piling(s) and the walkway may not be decked and the pilings or cables may exceed the width of the dock.
11. All structures located within the Project boundary must be located within the dock delineation lines and must maintain a setback as follows:

- a) For high density multi-use structures that are adjacent to low density use areas, there shall be a setback of at least 100 feet plus a fairway equivalent to two (2) times the length of the longest slip adjacent to the dock delineation line.
 - b) For high density multi-use structures that are adjacent to high density commercial, high density multi-use or public use facilities, there shall be a setback of at least 60 feet from the dock delineation line
12. Enclosures on the dock shall not be allowed. A screened area is considered an enclosure. There shall be no other permanent structures above the dock flooring.
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 elevation contour NGVD as measured at the dam. At Leesville Lake, the water elevation can rise up to and occasionally over the 620-foot elevation 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. As a courtesy to adjoining property owners and as a public safety measure, solar panels must be positioned so reflected light does not interfere with navigation or intrude onto adjoining properties. In addition, solar panels are permitted provided they meet the following criteria:
- a) Solar panels shall be mounted flush with the roof of an existing roofed-structure or incorporated into the roof of a planned roofed-structure provided the facility meets the other Shoreline Management Plan regulations.
 - b) Solar panels may not be mounted as free-standing structures connected to, or adjacent to docks or piers located within the Project boundary.
 - c) Facility owners must contact Appalachian prior to any solar panel installation within the Project boundary or on a proposed or existing structure. In addition, these installations must comply with all applicable local, state, and federal regulations.
15. A maximum of one (1) boat slip per housing unit served will be considered for approval.
16. A high density multi-use dock shall be limited to no more than four (4) slips per 100 linear feet of shoreline as measured at the base elevation. These slips shall be grouped together to the greatest extent possible given restrictions based on other regulations.

17. The size of the dock shall not exceed 400 square feet per boat slip. Steps providing access to the water may be added to the walkway but may not exceed five (5) feet in width; these steps are exempt from the square footage calculation.

18. At Smith Mountain Lake, the minimum water depth requirements are as follows:

- a) Four (4) feet at that portion of the slip closest to shoreline as measured from the base elevation;
- b) Three (3) feet for a personal watercraft (PWC) lift as measured at the base elevation; and
- c) Two (2) feet for an access pier for lots that were created prior to September 2, 2003.

At Leesville Lake, the minimum water depth requirements are as follows:

- a) Three (3) feet at that portion of the slip closest to shoreline as measured from the base elevation;
- b) One (1) foot for a PWC lift as measured from the base elevation; and
- c) One (1) foot for a six-foot pier as measured from the 613-foot elevation contour NGVD for lots that were created prior to September 2, 2003.

19. The facilities must meet 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.

20. Slips shall be constructed in conjunction with the construction of respective housing units.

21. 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.

22. Amber lighting shall be installed at the furthestmost end of all dock and pier structures that are located at the ends of peninsulas or between or near the line of sight of lateral marks and the lighting shall remain lit from dusk to dawn on a year-round basis.

23. Docks must maintain a setback of at least 60 feet 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.

24. Docks shall be constructed perpendicular to the base elevation.

25. 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.

26. 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.
27. *Documentation Program - See Section 2.6.*
28. *Non-Conforming Structure Provisions – See Section 2.7.*
29. *Monitoring and Enforcement of Structure Maintenance – See Section 2.8.*
30. Under any and all circumstances, neither habitable structures nor permanent sanitation facilities, including restrooms, drainfields and other sanitation facilities, that existed at the time Shoreline Management Plan was implemented (August 31, 2003) shall be either expanded or rebuilt. Further, no permits will be issued for additional uses or activities within the Project boundary on that property until such habitable structures and permanent sanitation facilities are removed from within the Project boundary and such structures and facilities may be required to be removed.
31. Trees and woody material that extend from the shoreline into the lake and that have to be removed for the installation of riprap shall be collected, bundled and sunk along the adjacent shoreline in water no greater than 15 feet deep so as to replace fish habitat.⁹ In lieu of natural habitat, manmade habitat may be proposed. Bundling techniques can be found in the *Habitat Management Plan* that is part of the License for the Smith Mountain Project issued December 15, 2009.¹⁰ In addition, property owners must consult with the USACE to obtain any necessary approvals prior to the installation of fish habitat structures.
32. Any vegetation that needs to be removed for the installation of a dock, pier, ramp or other structure shall be replaced in accordance with Section 2.5.12.
33. During the period from April 15 through June 15, the locations of the proposed work shall be inspected for the presence of largemouth bass nests. If a largemouth bass nest is detected where the work is to take place, the work shall be modified to not disturb the nest or the work delayed until after June 15.¹¹
34. Structures (including shoreline stabilization) adjacent to shoreline classified as Resource Protection Area shall maintain a setback of 30 feet from the the edge of the

⁹ FERC Order Issued December 15, 2009

¹⁰ See *Habitat Management Plan*, available at <https://www.smithmountainproject.com/>

¹¹ FERC Order Issued February 23, 2007