

## Nantahala Area Shoreline Management Guidelines (SMG)

These **Shoreline Management Guidelines (SMG)** apply to lands within the Federal Energy Regulatory Commission (FERC)-regulated Project Boundary at the following Duke Energy reservoirs:

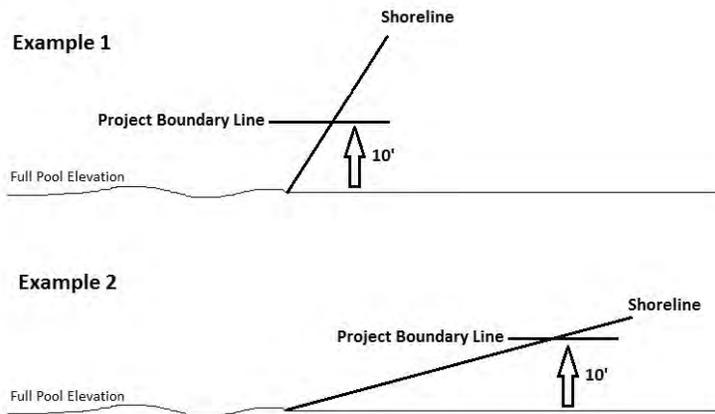
- Bear Creek Lake
- Cedar Cliff Lake
- Dicks Creek
- Lake Emory
- Lake Glenville
- Mission Lake
- Nantahala Lake
- Queens Creek Lake
- Tanasee Creek Lake
- Tuckasegee Reservoir
- White Oak Creek
- Wolf Creek Lake

Due to their small size and/or environmental concerns, Duke Energy does not allow the construction of new private piers and docks at the following reservoirs:

- Dicks Creek
- Lake Ela
- Lake Emory
- Mission Lake
- Queens Creek Lake
- Tanasee Creek Lake
- Tuckasegee Reservoir
- White Oak Creek

In general, lands within the Project Boundary include the lakes, dams, power plants, substations, all land below the normal full pond elevation of the reservoir and in most cases the land extending ten (10) vertical feet above the normal full pond elevation of the reservoir (Figure 1). All Duke Energy Project Boundary lines above normal full pond elevation extend vertically. This means the linear distance varies depending on topography. All lands within the Project Boundary are subject to rules and regulation as described in the FERC Licenses for these hydroelectric Projects.

**Figure 1: Examples of the relationship of vertical contour elevations and linear distance**



**Statement of Purpose:** These SMGs set forth the limitations as to the use of Project shoreline lands for non-Project uses. These guidelines are designed to:

- Meet Duke Energy’s regulatory requirements
- Protect Duke Energy’s generation interests
- Protect the scenic and environmental value of Project shoreline
- Provide recreational benefits to the general public
- Provide a guide to adjacent property owners on permitted uses of Project shoreline

## **I. Use of Project Shoreline Lands**

### **A. Use of Project lands by the general public**

In general, pursuit of any lawful public recreation activity within the FERC Project that does not violate the Project Public Safety Plan, create a public nuisance as declared by law enforcement officials, create a public health/safety hazard or otherwise endanger people or trespass on or damage property is allowed, subject to the following limitations:

1. Walking, picnicking, swimming and bank fishing is allowed on all Project lands not otherwise restricted.
2. Camping on Project lands is limited to areas clearly designated and designed for such activities.
3. Designated picnicking and swimming areas may also be specifically designated for such activities. These additional designated areas are clearly marked as **Day Use Only**.
4. Pier/docks, steps and/or other structures, except in areas designated as public access areas, are privately owned. Use of these facilities by the general public is at the sole discretion of the owner.

### **B. Use of Project lands by adjacent property owners**

In general the owners or lease holders of property directly adjacent to Duke Energy’s shoreline property enjoy the same rights and privileges as afforded the general public. Ingress and egress by adjoining property owners across Project lands to view the lake or to access Duke Energy-approved lake use facilities does not require written permission from Duke Energy.

Adjoining property owners may also be considered for expanded privileges, with prior written approval from Duke Energy, as described below. (Duke Energy does not recognize walk easements over adjoining property as ownership of that property; therefore holders of such easements are not eligible to obtain a pier/dock permit but have the same rights to use Duke Energy property as is afforded the general public.)

1. May apply for lake use permitting activities (e.g., private piers/docks, shoreline stabilization, etc.) provided they are the owner of the tract of land immediately adjoining the Project Boundary. Duke Energy will hold the applicant fully responsible for the permitted reservoir use (including maintaining structures in good repair). This responsibility is considered to transfer along with ownership of the adjoining property.
2. May keep and maintain a walkway, as approved by Duke Energy, from their property to

the shoreline of the lake.

3. May keep and maintain a floating pier/dock provided these structures are properly permitted and meet all specifications and requirements of the SMG. However, Duke Energy does not guarantee that all adjacent property owners will be eligible to receive a permit for a pier/dock. Pier/dock permits may be denied because of environmental or safety concerns or because of lot size or location or boating capacity limitations and other reasons Duke Energy may deem appropriate. See Exhibit 2 for pier/dock specifications.
4. May keep and maintain access steps to the pier/dock. Design drawings for new or rebuilt steps must be submitted and approved by Duke Energy prior to installation. Steps must be anchored properly with the minimal amount of intrusion into the full pond contour that still provides safe access to the pier/dock.
5. May with prior written approval remove vegetation in accordance with the Duke Energy Nantahala Area Vegetation Management Requirements (see Exhibit 1).
6. May with proper approval install riprap rock, dry stacked boulder walls, or other environmentally friendly erosion control methods along the shoreline directly in front of their adjacent property. See Exhibit 3 for shoreline stabilization and erosion control specifications. Riprap must be placed along the base of all dry stacks with a minimum depth of one foot and a slope of 2 to 1 with a three foot base at the lakebed dry stack interface.

### C. Limitations

Certain activities are prohibited because of lake size, environmental concerns, boating capacity limitations, safety considerations and other reasons. These include:

1. **Cabin or houseboat.** Enclosed vessels or vessels that could be used for habitation may not be moored overnight.
2. **Seaplanes.** With the exception of those used by local, state, or federal agencies for fire, law enforcement and/ or rescue purposes, seaplanes are not permitted.
3. **Ski courses.** Unless a part of an authorized Special Event, ski courses are not permitted.
4. **Buoys, buoy lines.** Buoys and buoy lines, other than those installed by Duke Energy or an authorized governmental agency, are not allowed.
5. **Floating trampolines and other large floating water toys.** Floating trampolines and other large floating water toys are not allowed
6. **Swim platforms/Floats.** Swim platforms, floats or other structures that are not permanently attached to an approved pier/dock are prohibited.
7. **Special Events.** Ski competitions, boat races, fireworks displays or other organized special events may be held on Duke Energy property provided they are approved, in writing, in advance by Duke Energy. Approval of such events will be subject to any conditions that Duke Energy may, at its discretion, require. Duke Energy may also approve other activities or uses which, at Duke Energy's discretion, will enhance the general public's recreational use of the lakes. Special Events may also require local, state or federal authorization.
8. **Boat ramps/Marine railway.** No new boat launch facilities will be allowed except those that enhance recreational opportunities for the general public.
9. **Marine Sanitation Devices.** No discharge of waste (either treated or untreated) is authorized from any watercraft.

## **D. Public Recreation Areas**

In keeping with Duke Energy's FERC License requirements to provide public recreation opportunities, shoreline areas have been set aside and designated as Public Recreation Areas. These areas are set aside to provide access to the general public for one or more of the following activities: picnicking, swimming, bank fishing and or camping. No piers/docks may be installed in areas designated for public recreation except those installed for the express purpose of enhancing the recreational value of the area for the general public.

## **E. Vegetation Management**

Vegetation management and maintenance of vegetated terrestrial and riparian areas is an important factor in protecting and enhancing a lake's values. See Exhibit 1 for vegetation management requirements.

## **F. Restricted Areas**

1. Duke Energy prohibits access to certain areas because of safety considerations. Such areas are posted. They include areas near dams and spillways, buildings containing control devices and machinery, and areas near the intake or pipe used to withdraw water from the reservoir. All such areas are well marked.
2. Access to other Project property may be restricted because of environmental concerns or regulation, regulations imposed by FERC or other regulatory agencies, or other reasons requiring the limiting or denying of access to those areas or otherwise required by law.

## **G. Archaeological and Historical Resources**

Duke Energy has developed guidelines to protect known and unknown archaeological and historic resources that may be affected by the implementation of the SMGs. These guidelines are spelled out in the Project Historic Properties Management Plan (HPMP). For purposes of implementing these SMGs, the Eastern Band of Cherokee Indians Tribal Historic Preservation Office (THPO) has the same consultation status as the North Carolina State Historic Preservation Office (SHPO). In the event an applicant discovers historic or archaeological resources during construction of an approved activity, the applicant must stop work immediately and contact Duke Energy. In the event anyone discovers a potential grave site within the Project, the individual must immediately notify Duke Energy. Duke Energy encourages anyone who sees artifact collecting to notify local law enforcement personnel. Applicants for lake use permits in areas with a moderate to high probability for archaeological and historical sites may be required to conduct additional consultation with the THPO.

Applicants for lake use permitting activities that involve ground-disturbing activities (e.g., shoreline stabilization, spud poles, pilings, etc.) in areas with a moderate to high probability for historic properties within the Project Boundary of Cedar Cliff Reservoir must consult with the THPO. A separate form (available from Duke Energy) and any supporting information must be submitted to the THPO for activities of this type on Cedar Cliff Reservoir.

## **II. Policy Pertaining to Islands**

Several Project reservoirs contain islands. On some of the larger islands, Duke Energy's property

line only extends ten (10) vertical feet above the normal full pond elevation of the reservoir. Any access beyond that point is subject to the control of the property owner. On islands with privately owned lands, usage of Duke Energy property by the general public is subject to the same requirements in section I.B above. In general, islands owned by Duke Energy are available to the general public for **Day Use** activities such as bank fishing, swimming, picnicking, etc.

Unless otherwise posted, camping is not allowed on Duke Energy islands.

### **III. Policy Pertaining to Pumps and Water Removal**

Duke Energy will permit adjacent property owners to install pumps to remove reservoir water for irrigation purposes or home usage, subject to the following restrictions:

1. Pumps are limited in size to a volume rating of 5 gallons per minute.
2. Submersible well pumps are allowed provided installation, wiring and water quality requirements along with all federal, state, and local code regulations are met.
3. Except for submersible pumps and associated wiring listed above, no pumps, pressure tanks, wiring, filter equipment, buildings or any apparatus associated with the pumping operation, other than intake piping, may be installed on Duke Energy property.
4. Removing water for household usage (e.g., drinking water) will be permitted only if the property owner can verify previous unsuccessful attempts to find water on his own property.
5. Adjacent property owners must receive written approval from Duke Energy prior to installation of pumps.

Duke Energy allows organized firefighting organizations to remove reservoir water for fire suppression purposes. There is no limitation for pump volume for specific fire suppression events. Dry hydrants may be installed within the reservoir with written approval by Duke Energy. Duke Energy will allow access to the reservoir's waters via the Duke Energy-owned public access area boat ramps for emergency fire suppression events.

### **IV. Policy Pertaining to Commercial Operations**

No commercial marina, boat leasing facility, pier/dock construction facility or any other commercial activity is allowed within the Project Boundary unless properly approved and permitted. Applications for commercial operations may also require contacting the appropriate federal, state, and local agencies and approval by FERC.

### **V. Activities Not Controlled by Duke Energy**

Certain activities or access to the reservoirs are subject to regulation and control of governmental agencies and are beyond Duke Energy's control. These include:

1. **Motor boats and personal watercraft.** These vessels and their use are regulated and controlled by applicable State of North Carolina and county laws, ordinances, and regulations.
2. **Waste and water discharge into a lake.** These are regulated by the State of North Carolina and the US Army Corps of Engineers. No discharge facilities can be placed on

Project lands unless all appropriate permits have been obtained.

3. **Navigation buoys and signage.** Placement and maintenance of signage and other minor devices that are not part of Duke Energy’s Public Safety Plan (e.g., navigation channel markers, buoys marking submerged natural hazards, water quality monitoring buoys, etc.) and any other lawful activity necessary for the execution of routine duties that are regulated by federal, state or local government agencies directly involved in emergency response, law enforcement, environmental management, public recreation management, public health management, lake user education or other lake management support functions.

## **VI. Prohibited Lake Uses and Activities**

The acts or activities in this section are prohibited within the Project Boundary. Persons found to be in violation of any of these will be subject to Duke Energy sanctions which can include:

1. Restoration of the impacted area
2. Loss of consideration of any future lake use permitting activities of up to five years for improper vegetation removal or until vegetation is satisfactorily re-established (even if there is a change in property ownership)
3. Revocation of a previously issued permit and loss of consideration of any future lake use permitting activities and/or reinstatement of the revoked permit
4. Increase in fees
5. Modification or removal of non-complying structures
6. Further legal action being taken by Duke Energy

### **A. Scenic Protection**

1. Advertising and other signs, except for inconspicuous manufacturer’s labels on permitted structures, small “No Trespassing-Privately Owned” signs attached to a permitted pier/dock or “For Sale” signs on boats docked at Duke Energy-approved structures
2. Deposit or burning of brush, leaves or other refuse, except as necessary to support public facility construction and maintenance
3. Satellite dishes or other fixed communications antennas
4. Destruction, injury, or defacement of Project lands
5. Unauthorized alteration of Project lands

### **B. Environmental Protection**

1. Septic tanks, septic drain lines and drain fields, toilet facilities, sinks, water faucets, showers nor any other type of device that could produce a wastewater discharge, except for certain Commercial Facilities, Public Recreation Facilities or Conveyance Facilities necessary for waste disposal (e.g., marine pump out facilities)
2. Stormwater inlet pipes and their associated settling basins
3. Stormwater outlet pipes and their associated energy dissipaters (not including the final riprap or concrete-lined channel)
4. Fixed fuel delivery / storage devices anywhere other than at Commercial / Non-Residential Facilities or Public Infrastructure Facilities specifically approved for that use
5. Washing, except with water only or biodegradable detergents formulated for use around water, painting or resurfacing of vehicles or watercraft

6. Docking of houseboats actually used for human habitation
7. Any portion of a private dwelling, including attached porches and decks
8. Swimming pools, except at Public Recreational Facilities specifically approved for that use
9. Camping, except in designated areas or where specifically approved at Commercial Facilities or Public Recreational Facilities
10. Littering or dumping of trash and debris
11. Motorized vehicles except as allowed as part of an approved stabilization or storm debris cleanup project, launching/retrieving boats at approved public or private recreation facilities or as necessary for Project operation or licensee operational activities, firefighting and/or emergency response activities
12. Abandonment of personal property, including but not limited to vehicles, watercraft, boat trailers, lake use facilities and building materials
13. Filling or dredging
14. Removal of any type of vegetation not provided for in the Duke Energy Vegetation Management Requirements or planting of non-native vegetation
15. Destruction, alteration, or tampering with any informational or boundary sign
16. Unauthorized posting of any type signage
17. Burning of any material or debris
18. Camp fires outside of designated areas.
19. Collection of firewood
20. Unauthorized commercial activities
21. Placing any unauthorized structure within the Project Boundary
22. Unauthorized removal or placement of unauthorized materials (sand, rock, trees, etc.)
23. Failure to obtain a permit or comply with the conditions of a permit
24. Unauthorized use of Project lands or waters for agriculture or aquaculture purposes
25. Placement of non-native aquatic vegetation or unauthorized removal of aquatic vegetation from within the Project Boundary.
26. Mooring of watercraft, not attached to a pier/dock, within the Project Boundary for a period greater than five (5) consecutive days
27. Failure to comply with any of the regulations set forth in these SMG

**C. Public Recreation Opportunity Protection**

1. Any use that violates an applicable federal, state or local law or regulation. Examples include but are not limited to nudity, illegal discharge of firearms or fireworks, controlled substance abuse, public drunkenness, public urination or defecation, or other activities determined to be a nuisance by law enforcement officials
2. Pens, kennels, fences or other facilities for the housing and care of pets and/or livestock
3. Fences, except as necessary to confine livestock watering to a small area of the shoreline or to fence out nuisance animals (e.g., geese, beavers, etc.)
4. Docking, take-off or landing of seaplanes, except for specifically approved firefighting water carriers
5. Structures having enclosed walls beyond a minor storage closet
6. Causeways, dams or dikes that would cut off the backs of coves or would otherwise potentially impact navigation
7. Wells

8. Rope swings, cables, platforms or spring boards used for diving and swimming located outside of Public Recreation or Commercial Facilities specifically approved for that use

#### **D. Duke Energy Business Management**

1. Uses that violate an applicable federal, state or local law or regulation
2. Any use determined to be unacceptable by Duke Energy, in its sole discretion

### **VII. Review Process for Non-Project Lake Use Permit Requests**

Duke Energy uses the evaluation process below to review requests for non-Project uses (see Figure 2 below). The exact order of these steps and the information necessary will vary somewhat depending upon the activity proposed.

Duke Energy is neither the advocate nor the adversary for non-Project use applications. The applicant, not Duke Energy, is entirely responsible for negotiating the application process.

**STEP 1 - Permit Application Submittal:** The applicant initiates the lake use permitting process by submitting a complete lake use permit application. The lake use permit application is available on Duke Energy's website.

**NOTE:** Applicants for activities other than shoreline stabilization by individual residential property owners or private residential piers may be required to consult with local, state, and federal agencies, prepare an Environmental Assessment as part of the lake use permitting process, and seek FERC approval. Applicants for such activities should contact Duke Energy for additional information and instructions prior to submitting their lake use permit application.

**STEP 2 - SMP Review:** Duke Energy reviews the SMP to determine if the proposed activity is consistent. An onsite meeting between a Duke Energy representative and the applicant will normally be included in this step.

**STEP 3 - FERC Approval Requested (if applicable):** Once Duke Energy determines the request meets the requirements of the SMP, it will file the completed application with FERC (if applicable) for approval. FERC review typically takes several months and usually includes a public notice period (published in the Federal Register, on FERC's website, and the legal notices section of local newspapers) in response to which the general public may submit comments to FERC either favoring or opposing application approval. FERC may issue Additional Information Requests to Duke Energy to aid in application review. In such cases, Duke Energy will require the applicant to provide the necessary information. The FERC review typically culminates with an order or letter from FERC authorizing Duke Energy to approve the request as-filed, authorizing approval with specified modifications/conditions, or directing Duke Energy to deny the request.

**STEP 4 - Issuance of Lake Use Permit:** Once a FERC approval order or letter (if applicable) is received, Duke Energy provides the applicant with an approval.

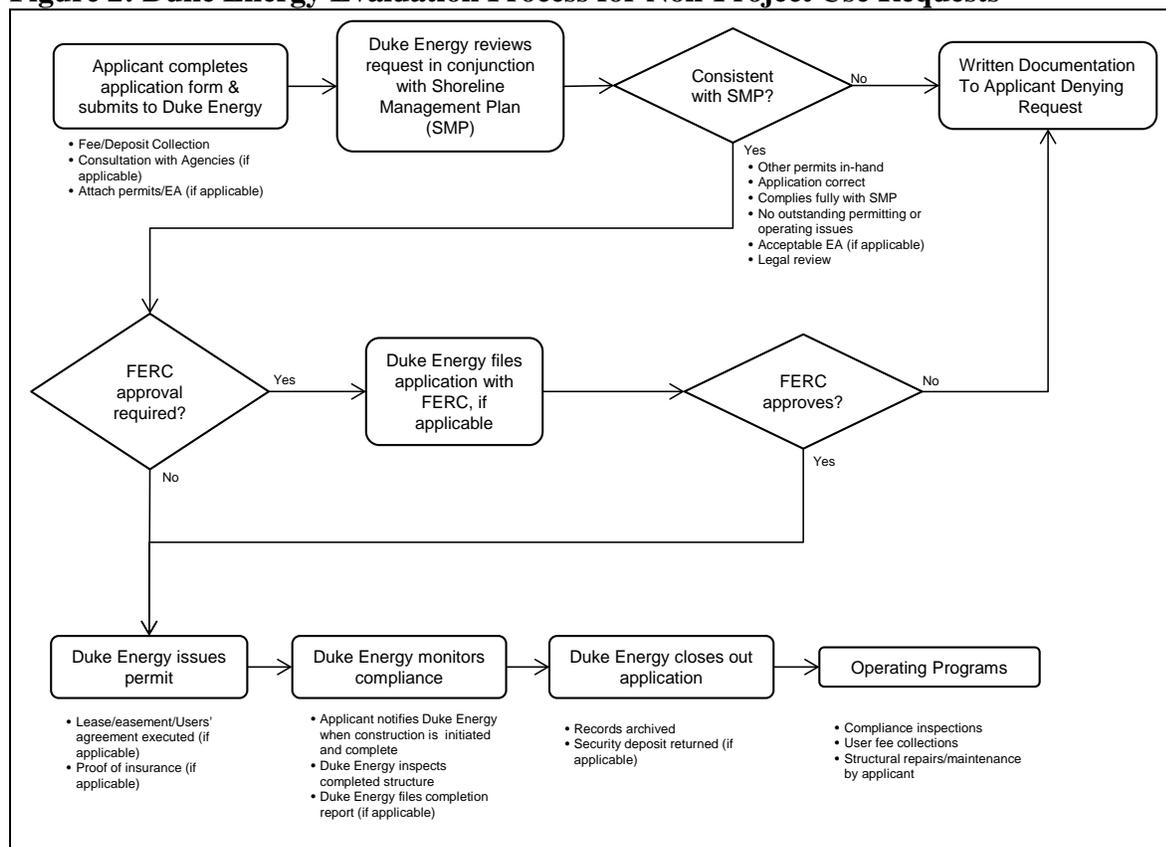
**STEP 5 - Compliance Monitoring:** Duke Energy inspects the activity or facility during construction and upon completion. Provided no violations occur and the activity is conducted in

accordance with the approval, Duke Energy will attach any applicable permitting tags. If a violation is detected, Duke Energy may immediately issue Stop-Work Directives, verbally and/or written via certified mail, to the applicant and/or applicant’s contractor. Consequences for Violations will be incurred and construction cannot resume until additional written authorization is received from Duke Energy.

**STEP 6 - Application File Close-out:** Duke Energy closes out the application file and archives permitting records.

**STEP 7 - Operating Programs:** The approved facility may then be subject to one or more lake use operating programs. These programs are designed to ensure permitted lake use facilities comply with the requirements of the FERC license and SMP. These programs may include, but are not necessarily limited to, periodic compliance inspections, user fee collection, and identification of structures requiring repair.

**Figure 2: Duke Energy Evaluation Process for Non-Project Use Requests**



## VIII. Authority and Responsibility of Lake Use Permit Applicants

Except as discussed above, non-Project uses of Project lands and waters must be authorized in writing by Duke Energy through one of the lake use permitting programs. Occasionally, questions arise concerning what exactly the applicant is getting when they get an approved lake

use permit from Duke Energy. Duke Energy has incorporated some type of user's agreement (e.g., Applicant's User Agreement letter for private facilities and shoreline stabilization), lease (e.g., commercial and private marina facilities) or easement (e.g., intake, bridge, etc.) document in the vast majority of lake use permits the company issues in an effort to ensure applicants understand ownership and maintenance responsibilities and their authority with regard to controlling actions of others within the lake area. The following information also helps clarify those issues.

### **A. Facility Ownership and Responsibility**

The applicant is the owner of the approved lake use facility once it is complete. Duke Energy holds the applicant completely responsible for:

- The safety of themselves and others they allow to use the facility (i.e. use at your own risk)
- Payment of any applicable fees and taxes
- Maintaining the facility in a state of good repair
- Ensuring the facility does not create a public nuisance, public health or safety hazard
- Ensuring the facility remains in compliance with all applicable federal, state and local regulations and codes, as well as directives of the FERC, Duke Energy, and any jurisdictional agency, including modification of the facility in the future if necessary
- Removing the facility in its entirety and restoring the disturbed area as necessary at their own expense should the facility's use be discontinued, or if directed to do so by Duke Energy or any entity having the legal authority to do so

If ownership of the adjoining property changes, then responsibility for the approved lake use also changes and becomes automatically the responsibility of the new owner. Facility owners must contact Duke Energy to get the applicable permits transferred to the new owner when property ownership changes. Note some types of lake uses require written transfer of lease/easement/user's agreement documents when property ownership changes.

### **B. Ownership and Rights in Land**

Duke Energy lake use permits do not transfer fee title to any land.

The Private Facilities and Shoreline Stabilization Programs' permits are simply permission to use Project lands and waters for construction, operation, use and maintenance of the approved structure. Consistent with the user's agreement, if the permit is cancelled by Duke Energy, the permittee may be required to remove the structure and restore the disturbed area at their own expense.

Duke Energy issues leases, easements, or permits for Commercial Facilities and Conveyance Program activities. These programs generally result in much larger facilities or facilities with a much greater potential for impact than the Private Facilities or Shoreline Stabilization Programs. To limit company liabilities and comply with the Standard Land Use Article in the FERC License, Duke Energy uses the appropriate document to assign the minimal property rights necessary to construct, operate, use and maintain the approved facility. These conveyance

documents will also have a specified term and a cancellation clause covering what happens if the agreement is cancelled or not renewed at expiration.

### **C. Authority to Control Uses of Others**

Lake use permit holders have the authority to prevent others from trespassing on the structures they have built.

### **IX. Caution**

There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, boating capacity limitations or other reasons.

There are existing structures and improvements previously permitted by Duke Energy and its predecessors which do not conform to the current SMP. Such non-conforming structures may be maintained (see Glossary for definition of “facility maintenance”) with Duke Energy written approval. When it becomes necessary to replace a previously unapproved non-complying structure, the new structure must comply with the SMP in effect at the time of the replacement.

Since every possible situation cannot be anticipated, Duke Energy reserves the right to make special rulings in cases not specifically covered by the SMP.

### **X. Consequences for Violations**

Duke Energy representatives will issue Stop Work Directives for violations of the SMP. Consequences for violations will include one or more of the following:

- Unwanted delays
- Loss of security deposits
- Suspension or cancellation of approved applications
- Increases in fees
- Modification or removal of non-complying structures and restoration of disturbed areas at the owner’s expense
- Loss of any consideration for future reservoir use applications
- Other specific penalties as described below:

Examples of violations and specific penalties are described below:

- Unauthorized major cutting of the buffer: Restoration with approved native vegetation. Removal of the pier/dock (if applicable) from Project. Loss of consideration for lake use permitting activities for **up to 5 years** depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the buffer: Restoration as required in the Vegetation Management Requirements for approved tree removal.
- Refusal to remove an unapproved, dilapidated or unsafe structure: Removal of the structure from the Project by Duke Energy. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including Duke Energy or contractor expenses, landfill fees, legal fees, and a set management

- fee of \$1000, is paid.
- Unauthorized structure built within the Project Boundary: After the fact application may be accepted if structure conforms to the SMP. Application fee will be twice the current permit fee to cover additional costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

## Glossary and Abbreviations

**activity** - Any occupancy or use of lands and waters within the Project Boundary or Duke Energy-owned peripheral strip.

**application** - A Duke Energy form upon which the applicant describes and officially requests a given lake use. Each permitting program will typically have one or more application forms.

**boatramp/marine railway** - An inclined structure extending from the shoreline into the lake for the purpose of launching and retrieving watercraft.

**boatslip** - Also referred to simply as a “*slip*”, it is an unroofed structure designed for temporary or long-term watercraft storage. The open portion of a boatslip is normally 10’ wide by 20’ long and confined by at least three sides; however, other sizes do exist and fewer than three sides may be confined. “*Boatslip*” is synonymous with the term “*boat docking location*” and means one boatslip can accommodate only one watercraft at a time within the slip.

**boatlift** - A mooring device that lifts the watercraft, including personal watercraft, above the lake level normally utilizing buoyant pontoons or a series of cables and winches.

**causeway** - A raised road crossing a ravine, stream or portion of a lake on which soil and/or rock are placed to build up the roadbed to a point where surface water will not typically over-top the road. Culvert pipes are typically used to allow surface water to pass under/through the road.

**commercial marina** - A business operation that involves the **non-project use** of project lands and waters for facilities where boats can be launched, retrieved or moored and where provisions for food services or convenience retailing, including petroleum dispensing, wet and dry storage of watercraft and other activities customarily associated with marinas are conducted. (*Note: See definitions for True Public Marina, Private Marina, Project Use and Non-project Use to differentiate between the different types and uses of marinas*).

**common use facility** - A shared boat dock or other recreational facility that can accommodate no more than five (5) watercraft at a time and that is intended to serve only the owners or leaseholders of private, project front lots. (*Note: Common use facilities may not serve off-water lots nor any lot containing a multi-family dwelling*).

**conveyance** - The granting of rights for the use of project lands and waters under a given set of conditions. Duke Energy may utilize easements, rights-of-way, leases, certain types of users’ agreements or fee title transfers to grant these rights.

**dock/pier** - A structure for storing/mooring watercraft or providing other recreational access to a lake (*e.g., fishing*).

**easement** - The granting or definition of certain rights in real property within the Project Boundary or on Duke Energy property. Easements are used to regulate activities such as utility lines, roadway crossings, water intakes and discharges.

**FERC** - Federal Energy Regulatory Commission (FERC). FERC is responsible for licensing and ensuring regulatory compliance for the nation’s non-federal hydropower projects.

**facility** - A structure or combination of structures that is/are placed within the Project Boundary by the applicant.

**facility maintenance** - The continuous minor repair of an existing permitted facility (i.e.

structure or combination of structures) that does not involve alteration, within a twelve (12) month period, of more than 10% of a primary component (e.g., decking or pilings) of that facility. If a facility or a primary component of that facility becomes in such a state of disrepair that complete replacement is the only practical alternative, then the work would be considered a **rebuild** and not maintenance and the facility must comply with the SMP in effect at that time. Replacement of flotation in any amount is considered facility maintenance.

**fee** - A dollar amount paid by the applicant or lake user to Duke Energy to help offset Duke Energy's costs for operating a comprehensive lake management program.

**FERC** – Federal Energy Regulatory Commission

**float** - A floating platform for use by swimmers or for docking watercraft which is attached to a permitted structure.

**Full Pond Elevation** - The elevation, measured in feet above mean sea level, of the top of a lake's spillway or the top of the floodgates (*if applicable*). Also referred to as Normal Full Pond Elevation.

**houseboat** – Watercraft equipped with all the facilities customarily found necessary to support human habitation (e.g., enclosed cabin, restroom, sink or shower, sleeping facility).

**lake access** - Ability to use land or water within the Project Boundary or Duke Energy owned peripheral strip of a Duke Energy lake. Uses include but are not limited to pier/docks, boat ramps, mooring buoys, boatlifts, marinas, utility line, roadway and other infrastructure rights-of-way, shoreline stabilization devices, beaches, water intakes, wastewater discharges, boating access areas, bank fishing areas, public parks, trails and sand mining operations.

**lake use permit request** - A written request from any party requesting written authorization from Duke Energy (i.e., a **permit**) to use land or water within the Project Boundary or Duke Energy-owned peripheral strip of a Duke Energy lake.

**mitigation** – Actions required of the applicant/lake user for a proposed activity to offset the activity's impacts and to ensure the lake's scenic, environmental, recreational and cultural values are protected and enhanced. (*Note: Applicants/lake users must first seek to avoid any such impacts. If complete avoidance is not feasible or practicable, then redesigns must be explored to minimize impacts before mitigation becomes an option*).

**NCDEQ** – North Carolina Department of Environmental Quality

**NCWRC** – North Carolina Wildlife Resources Commission

**non-conforming structure** – Existing, previously permitted lake structure that does not comply with later revisions of the Shoreline Management Plan or other permitting policies.

**non-Project uses** - All uses of FERC Project land and water except those directly associated with the hydro station, the lake's dams and flow diversion devices, and the license-required uses (*e.g., specific public recreational and environmental enhancements*).

**Normal Full Pond Elevation** –See “full pond elevation;” may also be referred to as *full pond*.

**off-water lot** - A tract of land that is defined by a registered survey plat and that **does not** have a common boundary with the full pond elevation contour, the Project Boundary or the Duke Energy-owned peripheral strip bordering a Duke Energy lake.

**peripheral strip** – Also referred to as the shoreline strip, it is the strip of Duke Energy- owned land adjoining and lying above the normal full pond elevation of some Duke Energy lakes. In certain areas there may be little to no peripheral strip, whereas in others, the peripheral strip may extend to a contour five to fifteen vertical feet or more above full pond elevation.

**permit** - The written authorization from Duke Energy that is required prior to beginning any construction, shoreline stabilization, vegetation removal or activating a conveyance within the full pond contour, Project Boundary or Duke Energy-owned peripheral strip of a Duke Energy lake.

**power line rights-of-way** - Strip of land identified by an easement, fee title deed description or other means that contains or is planned to contain any type of power line. Examples of power lines include transmission, distribution and retail lines (*both Duke Energy and non-Duke Energy, overhead and underground*) for transmitting electric power, cable TV lines, telephone lines, telegraph lines, railroad signal lines or any type of line that carries electric power.

**private access** - Lake access that is restricted to selected individuals according to where they live, where they work, membership in a specific club, etc. Examples include but are not limited to individual private facilities, common use facilities, private marinas, recreation areas for employees of a specific company, slips for non-transient campgrounds (*i.e. rent for more than 14 days*), and private roadways.

**private marina** - A non-Project use of Project lands and waters for facilities where watercraft can be launched, retrieved or moored for the purpose of providing access to the lake for certain private non-commercial use by private developments or homeowner associations (*e.g., off-water lots, non-transient campgrounds, yacht clubs and multi-family dwellings*). Residential properties associated with this classification include townhouses, condominiums, apartments, some campgrounds and subdivision access lots.

**Project Boundary** - This term, as used in conjunction with FERC-licensed hydro projects, is generally ten (10) vertical feet above the normal full pond elevation contour as stated in the license. There are some exceptions to this general rule and the Exhibit G drawing filed with the FERC should be consulted for specific determinations.

**Project front lot** – A tract of land that is defined by a registered survey plat and that has a common boundary with the full pond elevation contour, the Project Boundary or the Duke Energy-owned peripheral strip bordering a Duke Energy lake.

**Project uses** - A term used in conjunction with FERC-licensed projects to include those uses of FERC project land and water that are required for construction, operation and maintenance of the project's dam(s), powerhouse(s), electric transmission facilities (*typically powerhouse to and including the tie station*) and any facilities required to meet the project's licensing commitments for recreation and wildlife management. *Project uses* are considered mandatory by the FERC and other uses must not be allowed to impair them.

**public entity** - Agency, organization, department, etc. that is charged with providing services and/or maintaining basic facilities for the general public.

**public infrastructure access** - Non-recreational lake access that directly supports regional public infrastructure needs. Examples include but are not limited to county, municipal or utility water intakes and discharges, public roadway and utility line rights- of-way, railroad crossings, boat mooring/launching facilities for emergency response activities and for state and local law

enforcement support.

**public recreational access** - Lake access that provides for the operation and management of recreational opportunities for the general public that directly support the requirements of Duke Energy's FERC licenses and are not restricted to selected individuals. Examples include but are not limited to Duke Energy owned public access areas, federal, state, and local parks and recreation areas and true public marinas.

**public roadway** - Any combination of roads, causeways, bridges, etc. that is required to meet transportation needs of the general public, is open to the general public for their use **and is** maintained by a public entity.

**registered survey** - Scaled drawing, prepared and stamped by a duly licensed Registered Land Surveyor, to provide a metes and bounds description of a particular tract of land. (*Note: A survey plat does not have to be recorded at the local Register of Deeds Office to be considered a registered survey*).

**riprap** - Large crushed stone

**security deposit** - A dollar amount paid by the applicant to Duke Energy at the time a permit is applied for that will be refunded **if** the applicant complies with all permitting program guidelines.

**shoreline stabilization expansion** - An increase in the linear distance of shoreline stabilized, regardless of the stabilization technique (*i.e. dry stack boulder wall, riprap, and landscape plantings*), and/or an increase in the vertical height of a dry stack wall or riprap.

**shoreline stabilization maintenance** - The repair a of single component (*i.e. deadmen, anchors, boulders, etc.*) within specific portions of a structure, or replenishing existing riprap or landscape plantings within the confines of the originally stabilized bank.

**shoreline stabilization rebuild** - The replacement of a portion of the stabilization material/structure, not to exceed 50% of the original material/structure.

**single-family pier/dock** - A facility that provides access to the lake for the owner of a **single**, Project-front lot. Individual private facilities may include, but are not limited to piers, docks, floats, and boatslips. (*Note: Individual private facilities may not serve multiple Project front lots, off-water lots, nor any lot containing a multi-family dwelling*).

**Special Ruling** – Duke Energy decision on a proposed activity that is necessary due to a lack of applicable permitting processes, policies or criteria **or** to prevent guideline manipulation that would allow uses that violate the intent of the permitting programs.

**Stop Work Directive** - Verbal or written statement from Duke Energy directing an immediate halt to an activity within the Project Boundary or peripheral strip. Such directives are issued when any violation of this manual is detected. Violations will have negative consequences for the applicant and additional written authorization from Duke Energy is required before the activity can resume.

**subdivision** - An area of land that has been divided into multiple residential lots.

**subdivision access lot** - A tract of Project-front property within the boundaries of a residential subdivision that has been set aside for providing lake access for owners of off- water and/or project front lots.

**true public marina** - A business operation that involves the public's use of Project lands and waters for facilities where boats can be launched, retrieved or moored **and** where activities customarily associated with marinas are provided to the public. There is no predetermination of user groups for the use of **any** of the land or water-based facilities, no membership requirements, and transient services (e.g., use of the gas dock) do not require wet slip or dry storage rental. Land and water-based services for transient users are provided at less than or equal to a reasonable and customary fee.

**USFWS** – United States Fish and Wildlife Service

**violation** - Any activity within the Project Boundary or peripheral strip that does not comply with the requirements established by this manual.

**watercraft** - A boat, personal watercraft (e.g., jet ski), or any vessel that can transport a person on water.

## **Exhibit 1**

### **Vegetation Management Requirements**

Vegetation management and maintenance of vegetated terrestrial and riparian areas is an important factor in protecting and enhancing a lake's values. Riparian and terrestrial areas filter runoff and can help reduce shoreline erosion when vegetation extends to and/or below the shoreline, thus helping to reduce sedimentation and protect water quality. They also provide wildlife corridors and habitat and can enhance recreational opportunities. Therefore, Duke Energy in consultation with various lake stakeholders, including resource agency personnel and private Project-front property owners, developed these requirements to protect riparian wildlife corridors on Project shoreline property.

The following requirements apply:

#### **1. General Policies**

- a. The Duke Energy property within or adjoining the Project Boundary shall be maintained in a vegetated forested condition, where existing, typical of forested areas of the region. A properly vegetated area shall include canopy trees, sub canopy trees, shrubs, herbaceous plants and forest floor leaf and humus layers.
- b. No clearing, thinning, spraying, planting or sowing of any vegetation, except for hazardous trees in eminent danger of falling on an individual, a structure or a proposed structure (constructed outside the Project Boundary), or removal of non- native invasive plants and poisonous plants, shall be undertaken by any person or party without written concurrence from Duke Energy. Non-native invasive plant lists can be found at [www.nps.gov/plants/alien/](http://www.nps.gov/plants/alien/).

#### **2. Vegetation Planting**

Protection and enhancement of important habitat areas can be accomplished by accommodating and supplementing the existing native vegetation.

- a. Vegetation native to the Appalachian Mountain region shall be required. (Note: A sample plant list (Exhibit 4) of commonly acceptable vegetation native to the Mountain Region is available from Duke Energy)
- b. Native vegetation beneficial to wildlife shall be encouraged.
- c. Turf grasses (e.g., fescue, Bermuda, etc.) shall not be planted and may not be allowed to become permanently established.
- d. Native ground cover other than permanent turf grasses may be planted as an enhancement to existing native vegetation.
- e. Permanent grasses other than turf grasses and other native vegetative cover may be permitted in conjunction with shoreline stabilization projects with written concurrence from Duke Energy.

#### **3. Vegetation Removal and Disturbance – General**

Access to the lake over Project lands and waters by adjoining property owners can be accommodated provided a primarily vegetated buffer is maintained with limited clearing.

- a. Clearing, thinning and pruning shall, generally, be accomplished with hand-held tools.
- b. Mechanical clearing (e.g., bulldozers, backhoes or other heavy equipment) shall not be

used (*Note 1*) unless in conjunction with a shoreline stabilization project or as a remedial activity, approved in writing by Duke Energy, as a result of pest infestations. Disturbance for installation of stabilizing structures shall be restricted to the minimum needed to gain access and install stabilizing structures and shall not include clearing outside of the limits of the stabilization project.

- c. All soil and existing forest floor leaf and humus layers shall remain undisturbed and intact except for the construction of foot paths, authorized clearing or the minimum disturbance needed to stabilize shoreline or install a Duke Energy-approved structure.
- d. Foot paths for individual lots shall be no more than six feet wide and should be designed in a winding manner, avoiding large trees ( $\geq 10$  inches dbh) and/or stepped to prevent surface runoff and erosion. The least damaging alternative that will prevent erosion and sedimentation shall be selected. Walkways must either have natural ground cover or be constructed of natural materials and follow the contour of the land. Concrete, asphalt, and other impervious surfaces are not allowed within the Project Boundary.
- e. Standing trees that are dead or diseased may be removed by adjoining property owners with written concurrence from Duke Energy. Dead trees in eminent danger of falling on an individual or structure are permitted to be removed without written concurrence from Duke Energy. However, Duke Energy must be notified within 48 hours following removal. Dead trees that do not pose a hazard can provide habitat for wildlife and the adjoining property owners are encouraged to leave such trees standing whenever possible.
- f. Trees that fall into the lake and do not block or unnecessarily restrict navigational access to piers or docks permitted by Duke Energy should be left in place to benefit fish and/or wildlife. Adjoining property owners may, with written concurrence from Duke Energy, pull trees that fall into the lake and restrict navigational access and/or access for approved stabilization onto the forested area of the Project Boundary as terrestrial habitat. Fallen trees that do not pose a safety or navigation hazard generally must remain as fish and/or wildlife habitat and may only be removed with written concurrence from Duke Energy.
- g. Trees that Duke Energy allows adjoining property owners to remove from Project lands and shoreline should be securely anchored along the shoreline to improve fish and/or wildlife habitat or placed in Project lands buffer as a downed log. Trees should be securely attached or anchored to prevent movement away from the shoreline. Trees that need to be removed but are away from the shoreline should be placed within the Project to serve as downed logs. These trees that are eligible for removal can be limbed and placed within the buffer provided sections of the tree trunk that are six (6) inches diameter or larger are retained at a minimum length of eight (8) feet.
- h. Standing live trees that are intentionally removed by adjoining property owners shall be replaced by a quantity of trees totaling the diameter of the tree removed. Replacement trees are not to be less than two (2) inches in diameter (e.g., three 2-inch trees may replace one 6-inch tree). Diameter shall be measured at breast height (dbh) of four feet above the base of the tree. Replacement trees should be a native “ecological equivalent” of what is removed (i.e. a tree removed from the canopy should be replaced with a similar species that also has the potential to reach the canopy, sub canopy trees should be replaced with a sub canopy species, etc.). Soil types, soil moisture and shade tolerance should be considered when selecting replacement trees.
- i. Individual trees may not be pruned except for viewsheds as provided below.

- j. Activities necessary for clearing debris and pruning existing trees as a result of substantial alteration of the natural forested canopy by extreme weather conditions (e.g., wind and ice storms) will be considered on an individual basis with written concurrence of Duke Energy and review by the North Carolina Wildlife Resources Commission.
- k. Grubbing or grinding of tree stumps of any size is not allowed except in the establishment of foot paths (large trees  $\geq 10$  dbh must be avoided) and as approved as part of authorized stabilization activities.
- l. Except for application to poisonous plants (e.g., poison ivy, poison sumac, and/or poison oak), chemicals shall not be used to kill other native non-invasive vegetation on land or in the water.

#### 4. Viewsheds

Viewsheds are intended to allow adjoining home or structure owner's views of the lake and/or other surrounding natural features while maintaining a vegetated forested condition that includes a varied forest canopy.

- a. A single viewshed may be established in consultation with Duke Energy once a home or building is constructed.
- b. An on-site meeting between the Duke Energy representative, the home or business owner and any landscape contractor is required to establish the viewshed. The meeting will result in an approval letter that specifically identifies and lists all activities that can be accomplished to provide a viewshed, including but not limited to, pruning, topping, tree and/or vegetation removal, tree and/or vegetation replanting, etc.
- c. Vines, shrubs, and trees may be selectively pruned/limbed in order to facilitate a viewshed. Native shrubs and vines shall not be pruned from the ground to a height of four (4) feet.
- d. A joint single viewshed may be created by two adjoining property owners with written concurrence from Duke Energy.
- e. Minimal topping and removal of only selected evergreen trees (e.g. white pine, yellow pine) will be considered to establish a viewshed.
- f. Small diameter (i.e.  $< 6''$  dbh) white and yellow pines may be removed from within the approved viewshed without being replaced.
- g. Viewsheds will not be allowed to be created on Project lands adjoining areas designated as *Vegetated areas/coves with stream confluence*.

#### 5. Shoreline stabilization

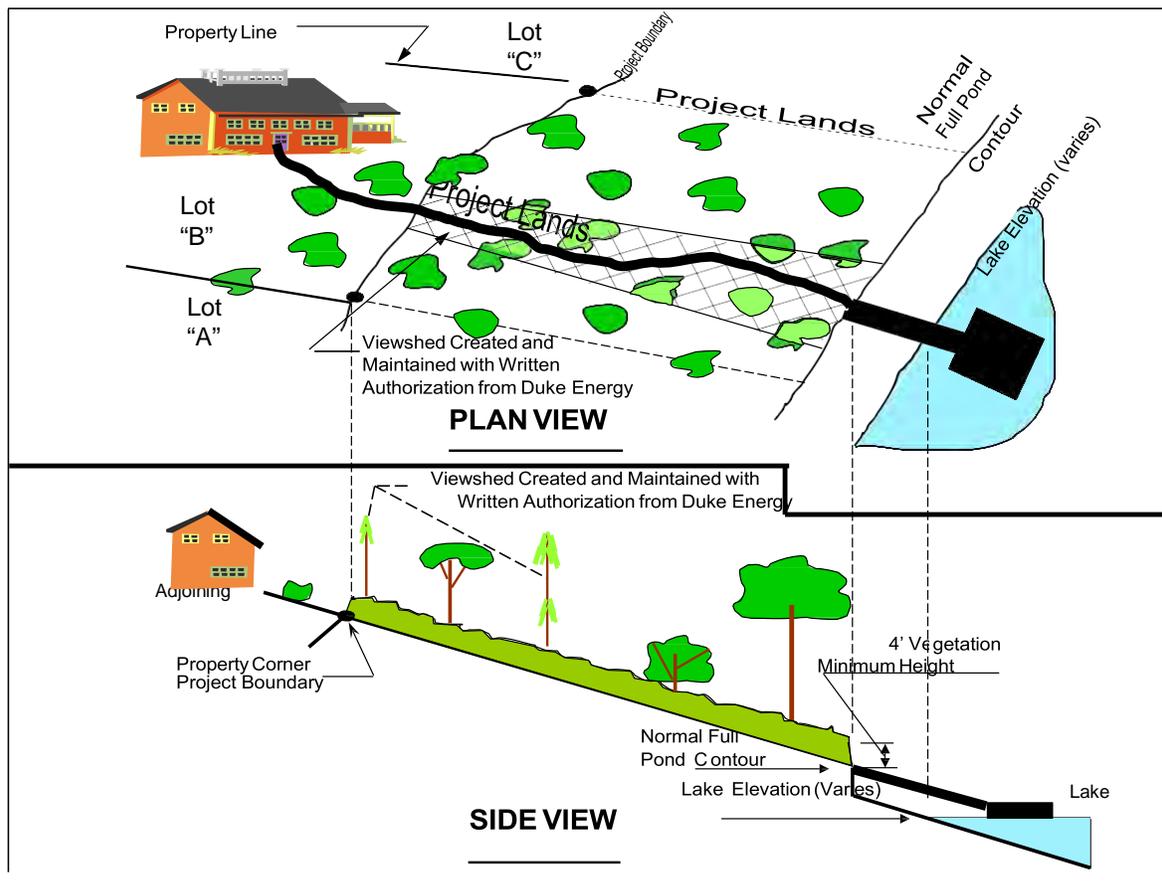
Shoreline stabilization by the property owner adjoining the Project Boundary is encouraged to help control soil erosion.

- a. Shoreline stabilization is permitted with written authorization from Duke Energy.
- b. Minimal clearing is allowed to create corridors for equipment access for stabilization projects. Access corridors should be incorporated into permanent pier/dock access corridors (i.e. foot paths) where practical. Native vegetation removed to accommodate construction access for shoreline stabilization shall be replaced with native vegetation of a similar growth form to what was removed.

Notes:

1. Activities conducted by federal, state or local governments, railroads, public utilities or other entities that typically have the power of eminent domain (e.g., utility or roadway right of way, construction, and maintenance, etc.) are not subject to these Vegetation Management Requirements. However, such activities, where practical, should be conducted in a manner consistent with these requirements.
2. Activities conducted on state or national forest land for the production or harvesting of timber and conducted in accordance with the "Forest Protection Guidelines Related to Water Quality" or the North Carolina Sedimentation Pollution Control Act of 1973 are not subject to the provisions of these requirements.
3. The provisions of these requirements shall not apply to Duke Energy-approved maintenance or rebuild activities or activities (e.g., pier/docks, stabilization, mowing) which were allowed and/or approved by Duke Energy prior to the adoption of these requirements.

**Figure 1-1 Viewshed Schematic**



**Figure 1-2 Viewshed Examples**

**Acceptable**



**Unacceptable**



## **Exhibit 2 Floating Pier/Dock Specifications**

### **I. Types of Pier/dock Permits and Designed Usage**

Duke Energy will review applications for four (4) different types of piers/docks on the reservoirs eligible for pier/dock permits. These type piers/docks and their intended usages are as follows:

#### **A. Commercial Marinas**

Commercial marina permits will allow permit holders to install a True Public Marina (see Exhibit 5). Applications for Commercial marinas require federal, state, and local resource agency review, and possible review and approval by the Federal Energy Regulatory Commission. Commercial marinas are designed to accommodate the needs of the general public; may be allowed, with proper approval, to accommodate more than 10 watercraft; and may charge a fee for their usage. Commercial marinas may offer boat rentals, the selling of gasoline, food supplies, or other commercial items.

#### **B. Private Marinas**

Private marina permits will allow permit holders to install a marina that may accommodate up to but not more than 10 watercraft. Applications for Private marinas require federal, state, and local resource agency review, and possible review and approval by the Federal Energy Regulatory Commission. Private marinas are designed to accommodate the private non-commercial use by private developments or homeowners associations that own property adjoining Project property.

#### **C. Single-Family Piers/Docks**

Single-family pier/dock permits will allow permit holders to install a pier/dock, at which no more than two (2) motorized watercraft with no limitation on non-motorized watercraft or (3) motorized watercraft with no non-motorized watercraft may be moored. Single-family piers/docks are permitted for the private, non-commercial use of individual property owners or lease holders who own/lease property adjoining the Project Boundary.

#### **D. Common Use Piers/Docks**

Common use pier/dock permits will allow individual property owners or lease holders that own/lease property adjoining the Project Boundary to install a pier/dock, at which no more than five (5) watercraft may be moored. Common use piers/docks are designed for the private, non-commercial use by two or more individual property owners that own/lease contiguous properties adjoining the Project Boundary. Property owners who enter into a common use permit forfeit their right to apply for a single-family pier/dock adjacent to their property.

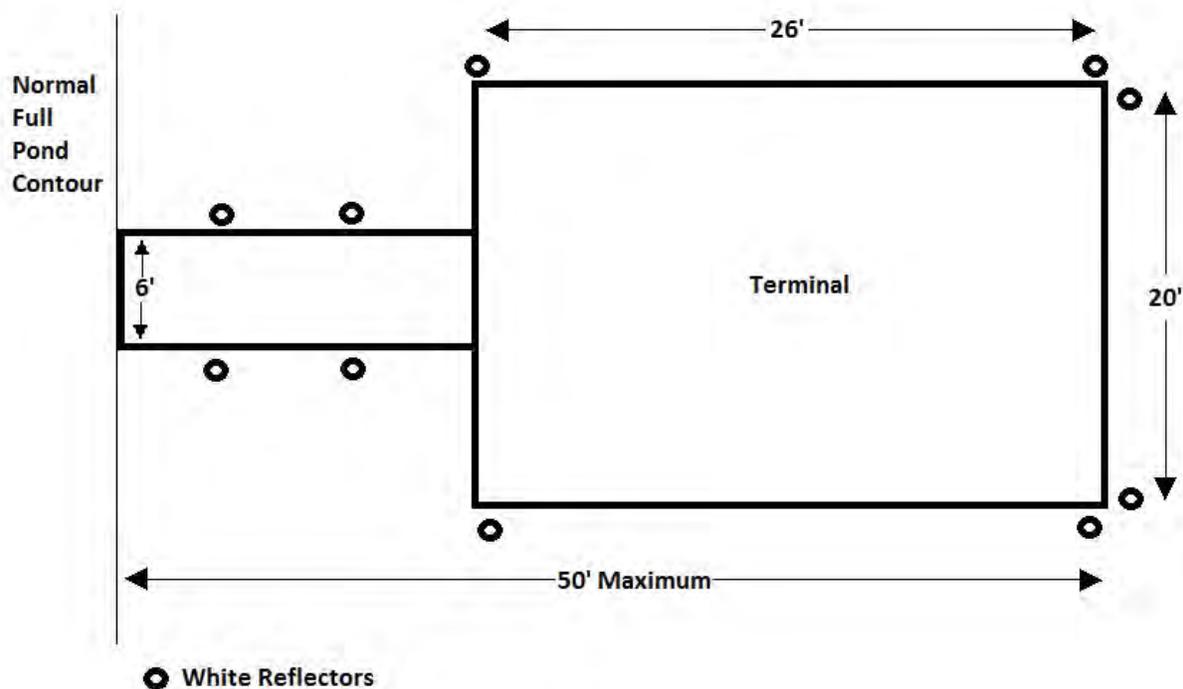
A common use arrangement may be dissolved if all property owners involved are in agreement and the common use facility complies with the guidelines in effect at the time for a single-family pier/dock. If the common use facility requires modification in order to comply with the current guidelines, then no permits for single-family piers/docks will be issued to the other property owners involved until the modifications are complete.

## II. Pier/dock Size and Design

Single-family piers/docks are by far the most common piers/docks permitted on any of the Duke Energy reservoirs. Therefore a standard maximum size for this type pier/dock has been established (See Figure 5). A single-family pier/dock may have terminals of any shape, provided said terminal has outside dimensions of no greater than 20 x 26 feet. A Jet ski pad/lift, boatlift or swim platform may be attached to the terminal of a single-family pier/dock only if the addition of the pad/lift/platform does not cause the overall size of the pier/dock to exceed size limitations. Overall length may not exceed 50 feet except as specified in Placement item 8 below. (Note: Jet skis are considered motorized watercraft and as such are limited in number for mooring at single-family and common use piers/docks as are other motorized watercraft).

Approved pier/dock size and design for common use piers/docks and marinas may vary due to location and adjoining lot size. Duke Energy will review design configurations for common use facilities on a case-by-case basis.

**Figure 2-1 General Boat Dock Design**



Terminal maximum dimensions are twenty (20) feet wide and twenty-six (26) feet long. The maximum length of the dock is fifty (50) feet.

## III. Specifications for Placement and Construction of Piers/Docks

### A. Placement

1. Piers/docks must be placed so that all portions of the pier/dock are at least fifteen (15)

feet from the imaginary projection of adjoining side lot lines as those lines project out into the lake. Projection of these side lot lines is accomplished by extending an imaginary line perpendicular to the Project Boundary at each property corner. These lines are determined by bisecting the angle formed by the two Project front property lines that intersect at each property corner. Exact placement of piers/docks will be determined by Duke Energy.

2. Unless otherwise specified, piers/docks must be placed at right angles to the shoreline.
3. No pier/dock may extend more than one-third (1/3) the distance across a cove.
4. Piers/docks must be secured in such a manner that the walkway is in contact with the shoreline at all times.
5. Dock owners may “follow the water” in an effort to maintain usability of their dock during periods when a depth of 4 feet at the end of their dock cannot be reached. Dock owners who choose to follow the water shall not prevent or block access to other docks or coves nor impact shoreline classified as a Sensitive Area by the Shoreline Classification Maps. The temporary relocation of docks must not create safety, navigational, or other hazards. No electricity-carrying lines coming from the shoreline can be connected to docks while they are following the water. Dock owners shall return their dock to the approved location and orientation when a depth greater than 4 feet at the end of their dock can be reached. Duke Energy may waive certain guidelines that would conflict with following the water at its sole discretion. Duke Energy reserves the right to require dock owners to immediately restore their dock to the original approved location if the owner is not complying with the applicable requirements. No written authorization is required to follow the water.
6. Posts, pipes or other rigid mooring devices may not be placed in reservoir waters unless used in conjunction with a floating pier/dock or to create a raised walkway over existing vegetation as identified in the Shoreline Management Plan in areas classified as Vegetated Areas/Coves with Stream Confluence.
7. Cables used to secure piers/docks to the shoreline may not encroach across projected side lot lines.
8. Generally, the overall length of a pier/dock (walkway and terminal end) may not be greater than 50 feet. However, Duke Energy will consider allowing an overall length of greater than 50 feet (not to exceed the lesser of 75 feet or 1/3 the distance across the cove) if a water depth of four (4) feet at the end of the pier/dock, at reservoir normal full pond elevation, cannot be reached in that distance. At Wolf Lake, Duke Energy will consider allowing an overall length of greater than 50 feet (not to exceed the lesser of 75 feet or 1/3 the distance across the cove) if a water depth of four (4) feet at the end of the pier/dock, at reservoir normal target elevation during the recreation season (May-Oct.), cannot be reached in that distance.

## **B. Construction**

1. All portions of the pier/dock and walkway must float with the exception of a raised walkway over existing vegetation as identified in the Shoreline Management Plan in areas classified as Vegetated Areas/Coves with Stream Confluence. Rigid, permanently affixed piers are not allowed. However, spud poles may be used to secure floating piers/docks.
2. All pier/dock flotation material must float when punctured. Encapsulated Styrofoam is

the recommended flotation material, however closed cell Styrofoam and plastic barrels filled with expandable foam are allowed. Other forms of flotation may be allowed with prior written approval from Duke Energy. Beaded Styrofoam, metal drums, and repurposed boat pontoons are expressly prohibited as flotation materials.

3. No covered or enclosed piers/docks or boatlifts are allowed.
4. Handrails on walkways and piers/docks must be open, and may not reduce boater visibility.
5. No covered or enclosed structures, including, but not limited to, boat covers, tents, canopies, etc., may be placed on or attached to piers/docks with the exception of small storage boxes that have been approved in writing by Duke Energy.
6. Access ladders are allowed on piers/docks, however sliding boards, diving boards or other such structures are not allowed.
7. Habitable structures and waste-producing facilities such as living quarters, sinks, bathrooms, and showers are not allowed on piers/docks and are not allowed to discharge into reservoir waters from any source.
8. Reflectors are required at the corners of all sides of the terminal end of the pier/dock except the side facing the shore. At least one reflector shall be placed on each side of the walkway, midway between the shore and the terminal end. White reflectors or white reflective tape attached with screws or nails are preferred. If white reflectors or reflective tape are not available amber or red reflectors may be used.
9. The construction of any facility must be completed as described in the approved application and within twelve months from the date of application approval by Duke Energy. An extension will be considered for legitimate extenuating circumstances provided a specific timeframe in which to complete the construction, not to exceed an additional 12 months, is provided in writing to Duke Energy by the applicant.
10. Gasoline and oil may not be stored on piers/docks, except as approved as part of a commercial marina.
11. Electrical hookups are allowed on piers/docks provided they meet North Carolina Building Codes and have been inspected and certified by the county electrical inspector, where applicable. Duke Energy must be furnished with a copy of the county inspector's final inspection report.
12. A boatlift or personal watercraft lift/pad may be allowed to be installed with proper written approval of Duke Energy. A total of one boatlift or personal watercraft lift/pad may be installed within a boatslip and/or one boatlift or personal watercraft lift/pad may be constructed adjacent to the outside of a boatslip. Only one boatlift or personal watercraft lift/pad will be considered for placement adjacent to a pier/dock without a boatslip. The boatlift or personal watercraft lift/pad shall accommodate only one watercraft.

#### **IV. Inspections and Compliance**

All piers/docks permitted on Duke Energy lakes must at all times remain in compliance with the rules and regulations set forth in the Shoreline Management Plan. Piers/docks must also be maintained in a safe condition at all times.

### **C. Inspections**

Duke Energy reserves the right to enter upon and inspect any pier/dock at any time.

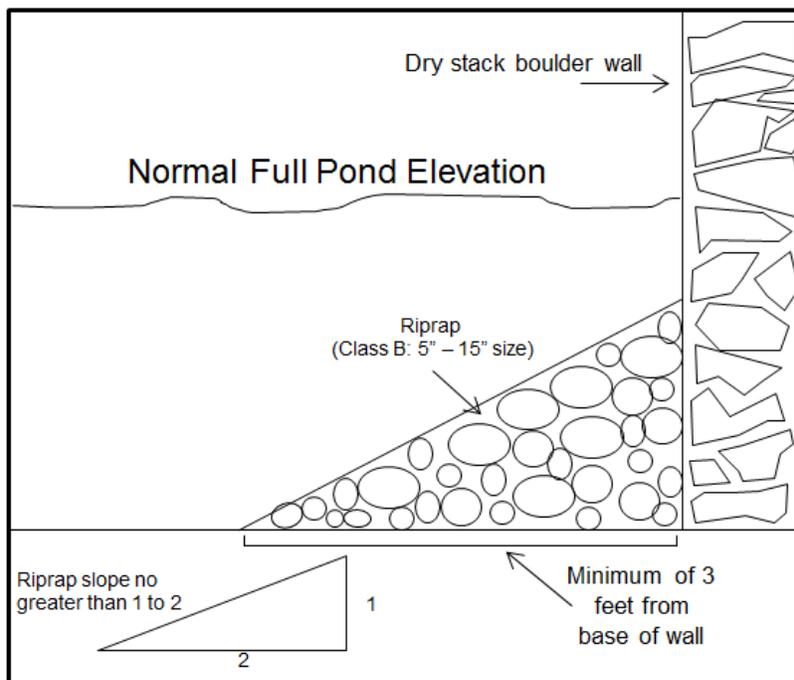
### **D. Compliance**

Piers/docks, determined by Duke Energy to be non-complying structures, whether for violation of permit criteria or for safety reasons, must be repaired, removed or replaced by the owner within a timeframe as prescribed by Duke Energy. Unless otherwise specified, failure to make necessary changes or repairs in the specified timeframe will result in immediate revocation of the pier/dock permit and removal of the pier/dock from within the Project Boundary. Once a pier/dock permit is revoked for noncompliance, further lake use permitting activities may not be considered for a period of not more than five (5) years depending on severity and subject to successful plant restoration (when applicable) even if the adjoining property changes ownership.

**Exhibit 3**  
**Shoreline Stabilization and Erosion Control**

1. With proper approval vegetation, dry stack rock, riprap rock five (5) to fifteen (15) inches in diameter or larger, or other environmentally friendly erosion control methods (i.e. bio-engineering) will be permitted.
2. Installation of erosion control methods require a Duke Energy lake use permit, a 404 US Army Corp of Engineers permit, if required, and a 401 Water Quality Certification issued by the NCDEQ-Division of Water Resources (DWR). For 404 and 401 permit information, contact the US Army Corps of Engineers office in Asheville, NC and the DWR Asheville regional office.
3. Riprap must meet U.S. Army Corps of Engineers guidelines.
4. Erosion control efforts cannot change the basic contour of the existing shoreline.
5. All erosion control measures must meet local, state and federal requirements.
6. Filter fabric (geo-textiles) will be required for either riprap or dry stack construction.
7. The use of concrete or grout as an erosion control measure or as a component of an erosion control measure is prohibited.

**Figure 3-1. Dry stack boulder wall design guidelines**



## Exhibit 4 Native Plant List

Information sources - “Recommended Native Plant Species for Stream Restoration in North Carolina”, Karen Hall - NC Stream Restoration Institute; and Ken Manuel - Duke Energy.

Trees	Small Trees/Shrubs	Herbaceous
<i>Acer rubrum</i> red maple	<i>Alnus serrulata</i> tag alder	<i>Arisaema triphyllum</i> jack-in-the-pulpit
<i>Acer saccharum</i> sugar maple	<i>Amelanchier arborea</i> serviceberry	<i>Asclepias incarnata</i> swamp milkweed
<i>Acer negundo</i> box elder	<i>Aronia arbutifolia</i> red chokeberry	<i>Carex crinata</i> fringed sedge
<i>Aesculus octandra</i> yellow buckeye	<i>Asimina triloba</i> common pawpaw	<i>Carex intumescens</i> bladder sedge
<i>Betula alleghaniensis</i> yellow birch	<i>Calycanthus floridus</i> sweet-shrub	<i>Carex lupulina</i> hop sedge
<i>Betula lenta</i> cherry birch	<i>Carpinus caroliniana</i> ironwood	<i>Carex lurida</i> lurid sedge
<i>Betula nigra</i> river birch	<i>Cornus alternifolia</i> alternate leaf dogwood	<i>Carex scoparia</i> broom sedge
<i>Carya cordiformis</i> bitternut hickory	<i>Cornus amomum</i> silky dogwood	<i>Carex stricta</i> tussock sedge
<i>Carya glabra</i> pignut hickory	<i>Corylus americana</i> hazel-nut	<i>Carex vulpinoidea</i> fox sedge
<i>Carya alba</i> mockernut hickory	<i>Hamamelis virginiana</i> witch-hazel	<i>Chelone glabra</i> turtlehead
<i>Carya ovata</i> shagbark hickory	<i>Ilex verticillata</i> winter berry	<i>Cyperus strigosus</i> umbrella sedge
<i>Diospyros virginiana</i> Persimmon	<i>Leucothoe axillaris</i> Doghobble	<i>Elymus hystrix</i> bottlebrush grass
<i>Fagus grandifolia</i> beech, American beech	<i>Lindera benzoin</i> Spicebush	<i>Eupatorium fistulosum</i> Joe-pye-weed
<i>Fraxinus americana</i> white ash	<i>Lyonia ligustrina</i> male-berry	<i>Eupatorium perfoliatum</i> boneset
<i>Fraxinus pennsylvanica</i> green ash	<i>Magnolia tripetala</i> umbrella tree	<i>Impatiens capensis</i> jewel-weed
<i>Halesia caroliniana</i> silverbell	<i>Physocarpus opulifolius</i> Ninebark	<i>Juncus effusus</i> soft rush
<i>Ilex opaca</i> american holly	<i>Rhododendron periclymenoides</i> wild azalea	<i>Leersia oryzoides</i> rice cutgrass
<i>Juglans nigra</i> black walnut	<i>Rhododendron viscosum</i> swamp azalea	<i>Lobelia cardinalis</i> cardinal flower

<b>Trees</b>	<b>Small Trees/Shrubs</b>	<b>Herbaceous</b>
<i>Juniperus virginiana</i> red cedar	<i>Rosa palustris</i> swamp rose	<i>Lobelia siphilitica</i> great blue lobelia
<i>Liriodendron tulipifera</i> yellow-poplar	<i>Salix sericea</i> silky willow	<i>Ludwigia alternifolia</i> bushy seedbox
<i>Magnolia acuminata</i> cucumber magnolia	<i>Spiraea latifolia</i> meadowsweet	<i>Panicum virgatum</i> switchgrass
<i>Nyssa sylvatica</i> blackgum	<i>Symplocos tinctoria</i> sweet leaf	<i>Polygonum sagittatum</i> tearthumb
<i>Picea rubens</i> red spruce	<i>Viburnum cassinoides</i> Withe-rod	<i>Scirpus atrovirens</i> green bulrush
<i>Pinus strobes</i> eastern white pine	<i>Xanthorhiza simplicissima</i> yellow-root	<i>Scirpus cyperinus</i> woolgrass
<i>Pinus echinata</i> shortleaf pine	<i>Cephalathus occidentalis</i> buttonbush	<i>Scirpus validus</i> soft stem bulrush
<i>Pinus taeda</i> loblolly pine	<i>Hydrangea arborescens</i> wild hydrangea	<i>Sparganium americanum</i> bur-reed
<i>Platanus occidenialis</i> sycamore	<i>Hypericum densiflorum</i> brushy St. Johnswort	<i>Thelypteris palustris</i> marsh fern
<i>Prunus serotina</i> black cherry	<i>Rhamnus caroliniana</i> Carolina buckthorn	<i>Uniola latifolia</i> river oats
<i>Quercus Alba</i> White oak	<i>Rhododerdron arborescens</i> sweet azalea	<i>Vernonia noveboracensis</i> ironweed
<i>Quercus montana</i> chestnut oak	<i>Salix caroliniana</i> Carolina willow	<i>Arundinaria gigantean</i> river cane
<i>Quercus stellata</i> post oak	<i>Sambucus Canadensis</i> Elderberry	<i>Eleocharis acicularis</i> slender spikerush
<i>Quercus rubra</i> red oak		<i>Eleocharis plaustris</i> creeping spikerush
<i>Quercus coccinea</i> scarlet oak		<i>Eleocharis quadrangulata</i> square-stem spikerush
<i>Quercus falcata</i> southern red oak		<i>Elymus virginicus</i> Virginia wildrye
<i>Quercus velutina</i> black oak		<i>Scirpus americanus</i> three-square bulrush
<i>Salix nigra</i> black willow		<i>Hibiscus moscheutos</i> swamp rose mallow
<i>Tilia heterophylla</i> white basswood		<i>Onoclea sensibilis</i> sensitive fern
<i>Tsuga canadensis</i> eastern hemlock		<i>Osmunda cinnamomea</i> cinnamon fern
<i>Tsuga caroliniana</i> carolina hemlock		<i>Osmunda regalis</i> royal fern

Trees	Small Trees/Shrubs	Herbaceous
<i>Ulmus alata</i> winged elm		<i>Apios Americana</i> groundnut vine
<i>Gleditsia triacanthos</i> honeylocust		<i>Campsis radicans</i> trumpet creeper
<i>Liquidamber styraciflua</i> sweetgum		<i>Clematis virginiana</i> virgin's Bower
<i>Morus rubra</i> red mulberry		<i>Parthenocissus quinquefolia</i> Virginia creeper
<i>Ostrya virginiana</i> Eastern hophornbeam		<i>Wisteria frutescens</i> American wisteria
<i>Populus deltoides</i> Eastern cottonwood		
<i>Taxodium distichum</i> Bald cypress		

## **Exhibit 5 True Public Marina Requirements**

Requirements for a marina to be classified as a True Public Marinas

1. No predetermination of user groups for any of the existing or proposed land or water based facilities.
  - a. No private marinas (existing or proposed)
  - b. No membership requirements
  - c. Transient services do not require wet or dry storage rental
  
2. Existing and/or proposed facilities will provide land and water based recreation services for transient users at less than or equal to a reasonable and customary fee.
  - a. Services are available for transient users
  - b. Offers services for lake and land based users

Because of the benefits True Public Marinas provide to the public, Duke Energy will provide the following application filing fee and security deposit reductions for the construction of new marinas meeting the above requirements or modifications to existing True Public Marinas.

- a. If adding the following type of facilities: courtesy pier/dock, hiking trail, wildlife viewing, gas pier/dock, fishing pier/dock, boat ramp, swimming area, beach, boat repair/servicing, public restrooms or any other truly public service, then the application fee and security deposit will be reduced by 100%.
- b. If adding facilities that will be rented for greater than 14 days, but less than or equal to 365 days, there will be a 50% reduction in the application fee and security deposit.
- c. If the plan is the same as b, but also includes adding more types of items in 3 a, then the application fee and security deposit will be reduced by 100%