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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION

Clyde Marcus Jones, II; Dennis Phillips, and Deborah Phillips, on behalf of themselves and all others similarly situated,

Plaintiffs,

v.

Duke Energy Corporation and Duke Energy Carolinas, LLC,

Defendants.

Civil Action No.: 3:24-cv-1281-MGL

PLAINTIFF'S MOTION FOR CLASS CERTIFICATION

Plaintiff Clyde Marcus Jones II respectfully moves this Court, pursuant to Rule 23 of the Federal Rules of Civil Procedure ("Fed. R. Civ. P."), for certification of a class of waterfront property owners on Lake Wateree, South Carolina, and would demonstrate that the proposed class is readily identifiably and meets the requirements of Rule 23(a) (generally referred to as numerosity, commonality, typicality and adequacy) and (b)(3), which permits certification where common questions of law or fact "predominate over any questions affecting only individual members", and where the proponent of certification demonstrates a "class action is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b)(3).

As articulated in Plaintiff's contemporaneously filed memorandum in support of class certification, Plaintiff has met his burden of demonstrating the requisites of class certification. Respectfully, this Court should now certify the proposed class and appoint the undersigned as Class Counsel.

Respectfully submitted,

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October 1, 2025

IN THE UNITED STATES DISTRICT COURT
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Clyde Marcus Jones, II; Dennis Phillips, and Deborah Phillips, on behalf of themselves and all others similarly situated, Plaintiffs, v. Duke Energy Corporation and Duke Energy Carolinas, LLC, Defendants.	Civil Action No.: 3:24-cv-1281-MGL

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Plaintiff Clyde Marcus Jones, II respectfully moves this Court, pursuant to Rule 23 of the Federal Rules of Civil Procedure ("Fed. R. Civ. P."), for certification of a class of waterfront property owners on Lake Wateree, South Carolina. In support of his motion, Plaintiff states as follows:

I. INTRODUCTION

Plaintiff owns and resides on one of over 2,500 waterfront properties on Lake Wateree, a manmade recreational lake and hydroelectric reservoir in South Carolina owned and operated by Defendants Duke Energy Carolinas, LLC and Duke Energy Corporation (together, "Duke Energy"). From 1923 to 2017, Duke Energy carried out a coordinated Mosquito Control Program ("MCP") on Lake Wateree and other man-made reservoirs on the Catawba River. For the first 55 or so years of the MCP, Duke Energy employees controlled the mosquito population by liberally spraying oil containing carcinogenic chemicals known as Polychlorinated Biphenyls ("PCBs") on Lake Wateree's shorelines at regular intervals. The PCB-containing oil formed a slick on the shorelines which prevented mosquitoes from breeding in shallow waters. In 1979, the federal government outlawed the production of PCBs because they bioaccumulate in living organisms and cause harm to human and environmental health. Around this time, Duke Energy discontinued its "oiling" of the Lake Wateree shorelines with PCB-containing oils but continued mosquito spraying operations in Lake Wateree's many coves until 2017.

Today, the PCB contamination remains. That is because PCBs are persistent pollutants that last decades and do not biodegrade easily. And the PCBs introduced by Duke Energy's MCP continue to exist at dangerous levels in Lake Wateree. In 2010, the U.S. Environmental Protection Agency began testing fish in Lake Wateree and discovered dangerous levels of PCBs necessitating an ongoing consumption advisory from South Carolina state agencies. In 2022, a peer-reviewed

study concluded that the source of PCB contamination in Lake Wateree was, in fact, Duke Energy's MCP. This ongoing contamination has and continues to harm Plaintiff and his property rights.

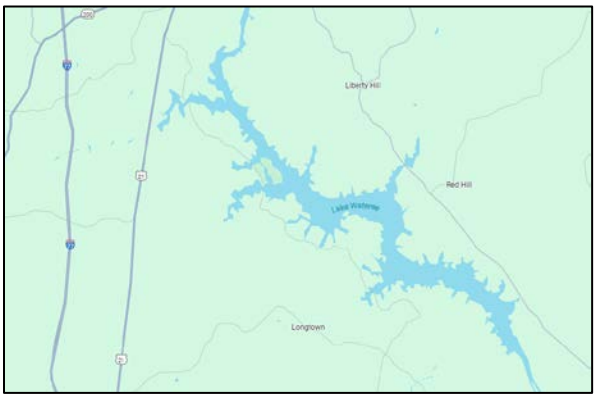
Plaintiff now moves for class certification pursuant to Rule 23. For the reasons stated below, Plaintiff's proposed class satisfies the requirements of Rule 23(a) and (b) and the Court should grant his motion for class certification.

II. BACKGROUND

A. Factual Background

1. Lake Wateree

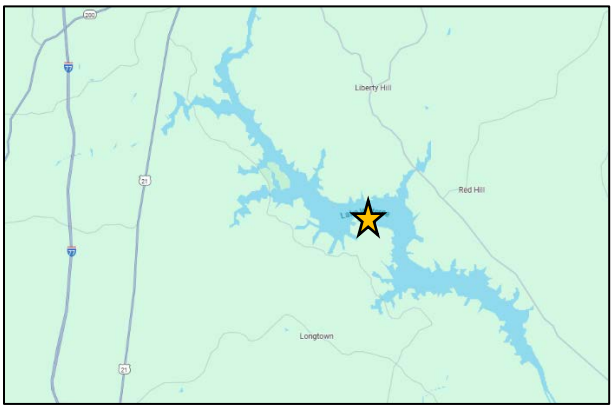
Lake Wateree is a 21-square mile (13,025 acre) manmade lake and hydroelectric reservoir located in Kershaw, Fairfield, and Lancaster counties created when Duke Energy dammed the Catawba River in 1919. **Ex. A** (Duke Energy Carolinas, LLC Catawba-Wateree Project FERC Project No. 2232 Shoreline Management Plan, Oct. 3, 2016) at 4; Dkt. 38, First Amended Complaint ("FAC") at ¶ 47. The "second largest reservoir in the Catawba-Wateree system," Lake Wateree has "approximately 214.9 shoreline miles including islands." Ex. A. A map of Lake Wateree is depicted below.



According to county property tax records, approximately 2,625 privately owned properties front Lake Wateree. (*See* **Ex. B**, Jones_000308, Waterfront Property Addresses).

2. Plaintiff Clyde Marcus Jones II

Plaintiff Jones is the owner of Parcel Number 128-04-41-040, a 0.98-acre waterfront property located in Kershaw County on Lake Wateree's eastern shore. The approximate location of Mr. Jones's property is depicted below.



The property includes a single-family home and a small dock. *See* **Ex. C** Jones_000215 (Property Card).

3. Duke Energy

Defendant Duke Energy Corporation (NYSE: DUK), is "a Fortune 150 company headquartered in Charlotte, N.C.," and "one of America's largest energy holding companies." About Us—Our Company—Duke Energy, available at https://www.duke-energy.com/our-company/about-us (last accessed Sept. 30, 2025). The company's electric utilities serve "8.6 million customers in North Carolina, South Carolina, Florida, Indiana, Ohio, and Kentucky, and [i]ts natural gas utilities serve 1.7 million customers in North Carolina, South Carolina, Tennessee, Ohio, and Kentucky." *Id.* Defendant Duke Energy Carolinas is a subsidiary electric utility of Duke Energy Corporation, serving the Midlands and Upstate regions of South Carolina. *See* South Carolina Service Territory Map, available at https://www.duke-energy.com/-/media/pdfs/ssm-territory-maps/south-carolina-service-territory.pdf?rev=fb84344f1cd44303b2dd2b5ae78ba1d9

(last accessed Sept. 30, 2025).

Duke Energy owns and operates Lake Wateree under a license from the Federal Energy Regulatory Commission ("FERC"). *See generally* **Ex. A**. Under its FERC license, Duke Energy must maintain and manage Lake Wateree in a reasonable manner, which includes preserving its fish, wildlife habitats, water quality, and shoreline. FAC at ¶ 51 (citing Lake Wateree Perspective of the Catawba-Wateree Relicensing Agreement, available at: https://www.duke-energy.com/-/media/pdfs/community/wateree-agreement.pdf).

4. Duke Energy's Mosquito Control Program

In 1923, in response to lawsuits and criticism alleging that Duke Energy's reservoirs were causing the spread of malaria in adjoining communities, Duke Energy founder James B. Duke hired Dr. F.M. Boldridge to create a program to combat the disease. (*See* **Ex. D**, DUK_00000027-29); (**Ex. E** at DUK_00002369). Dr. Boldridge implemented the Mosquito Control Program ("MCP") upon Duke Energy's many reservoirs, including Lake Wateree, and [redacted] *Id.* In 1997, Duke Energy's then-MCP Leader, Ken Manuel, described the reservoirs where Duke administered the program as [redacted] **Ex. D** at DUK00000028.

Duke Energy first administered the MCP by "oiling" reservoir shorelines on a regular basis—spraying oil near the shores to create a slick barrier on the surface of the shallow waters to prevent mosquito breeding. *Id.* Duke Energy oiled the shorelines using a variety of substances including crankcase oil, fuel oil, and, significantly, transformer oil, DDT, and oil waste. *See* **Ex. E** at DUK_00002371 [redacted]

oil."); **Ex. F**, DUK_00000157-158 [redacted] **Ex. G**, DUK_00000172 [redacted] **Ex. H**, DUK_00000289-294 [redacted] **Ex. I**, DUK_00000295-300 [redacted]

By 1989, Duke Energy replaced waste oil and transformer oil with Bacillus thuringiensis israelensis ("Bti"), a bacterial agent approved by the EPA for use in eliminating mosquito larvae. By the late 1990s, Duke Energy implemented spill prevention and containment measures specifically designed to prevent oil spills in water sources. **Ex. J**, DUK_ 00002051-2052. [redacted]. *Id.* at DUK_00002338 [redacted] By 2000, Duke Energy rarely acknowledged their previous use of waste and transformer oils, and then, only in settings including company personnel.

Duke Energy was also reliant upon property owners around its impoundments to help the MCP succeed. *See e.g.*, **Ex. H**, at p. 292 [redacted] Lakefront property owners were thus critical to achieve Duke Energy's objectives. Duke Energy also issued public statements and

press releases as part of its program. *See, e.g.*, Press Release, May 22, 2013, "Duke Energy mosquito control program in its 90th year," available at: https://news.duke-energy.com/releases/duke-energy-mosquito-control-program-in-its-90th-year.) (last accessed Oct. 1, 2025).

While Duke Energy often stressed the importance of homeowner vigilance in reducing mosquitoes around reservoirs, it never advised the lakefront property owners of Duke Energy's past use of toxic substances on Lake Wateree. Instead, Duke Energy reiterated that the MCP employed only government approved larvicides to target mosquitoes on these residential reservoirs. Duke Energy deliberately chose against disclosing its past practices to lakefront property owners. **Ex. E**, at DUK_00002371 [redacted]

5. Polychlorinated Biphenyls ("PCBs")

Polychlorinated Biphenyls ("PCBs") are synthetic organic chemicals consisting of carbon, hydrogen, and chlorine atoms, widely used in industrial applications and "domestically manufactured from 1929 until manufacturing was banned in 1979." United States Environmental Protection Agency, Learn About Polychlorinated Biphenyls, available at https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls (last accessed Sept. 30, 2025)[1].

[1] *See also* EPA Fact Sheet: Preventing and Detecting PCB Contamination in Used Oil Best Management Practices for Commercial and Municipal Used Oil Collection Centers, February,

PCBs were used extensively as coolants in hydraulic systems and as dielectric fluid in electrical equipment.[2] PCBs were categorized by manufacturers using a four-digit number, the last two digits denoting the chlorine content by weight.[3] PCBs were also commonly used in transformer oil and other hydraulic oil until the 1979 federal production ban.

PCBs are persistent environmental pollutants, as they "do not really break down once in the environment." *Id.* Indeed, PCBs "can remain for long periods cycling between air, water and soil" and "are also taken up into the bodies of small animals and fish. As a result, people who ingest fish may be exposed to PCBs that have bioaccumulated in the fish they are ingesting." *Id.*

Among the most widely studied environmental contaminants, PCBs have been found by many scientific studies to be toxic and carcinogenic to humans.[4] This is especially true where humans are exposed to PCBs that have been released into the environment (as opposed to in a factory or industrial setting). As the EPA has summarized:

> It is very important to note that the composition of PCB mixtures changes following their release into the environment. The types of PCBs that tend to bioaccumulate in fish and other animals and bind to sediments happen to be the most carcinogenic components of PCB mixtures. As a result, people who ingest PCB-contaminated fish or other animal products and contact PCB-contaminated sediment may be exposed to PCB mixtures that are even more toxic than the PCB mixtures contacted by workers and released into the environment.

Id.

2018, available at: www.epa.gov/system/files/documents/2022-04/pcbs_in_used_oil_fact_sheet_corrected2.pdf (last accessed Sept. 30, 2025).

[2] *Id.*

[3] *See* EPA Polychlorinated Biphenyls (PCBs) (Aroclors) available at: https://www.epa.gov/sites/default/files/2016-09/documents/polychlorinated_-biphenyls.pdf (last accessed Sept. 30. 2025).

[4] *See, e.g.,* Nat'l Center for Environmental Assessment, EPA (Sept. 1996) PCBs: Cancer Dose-Response Assessment and Application to Environmental Measures. Available at https://www.epa.gov/sites/default/files/2015-10/documents/pcbs_cancer_dose-response_assessment_and_application_to_environmental_mixtures.pdf (last accessed Sept. 30, 2025).

Because PCBs do not naturally biodegrade, they must be remediated through active measures. PCB environmental remediation is generally governed by EPA regulations. *See* Managing Remediation Waste from Polychlorinated Biphenyls (PCBs) Cleanups, available at https://www.epa.gov/pcbs/managing-remediation-waste-polychlorinated-biphenyls-pcbs-cleanups (last accessed Sept. 30, 2025).

6. Duke Energy's Use of PCB-Containing Oils on Lake Wateree

As set forth in the FAC, for decades, Duke Energy applied toxic PCBs to the shorelines of Lake Wateree despite knowledge that these substances were harmful, would bioaccumulate, and that this manner of disposal "contradicted best management practices for the disposal of PCBs and was likely to result in contamination." FAC at 95; *see* Dkt. 49, at p. 3. Plaintiffs allege that Duke Energy engaged in a deliberate effort to hide their involvement in and to conceal the extent of the contamination. These efforts included self-serving scientific studies commissioned by Duke Energy to create an alternative narrative about Lake Wateree's PCB contamination, and public misrepresentations about their management practices. FAC at ¶¶ 58-60, 69, 100, 101, 102, 112. As alleged in the FAC, Duke Energy purposefully prevented identification of the sources of PCB contamination in Lake Wateree. *Id.* ¶ 111. Further, Duke Energy failed to warn of the risks associated with PCB contamination and failed to take steps to remediate or abate this contamination. *Id*. ¶ 113. In 2017, Duke Energy chose to end the MCP, citing financial efficiency. Program employees were apparently blind-sided by the decision[5].

By the 1960s, scientific research determined that PCBs posed a risk to human health. FAC at ¶ 40. In 1972, the United States' task force on PCBs issued a warning that the use of PCBs

[5] *See* Dave Vieser, *Cornelius Today*, "Duke Energy raids mosquito Spray Budget," (Feb. 7, 2017), available at: https://www.corneliustoday.com/duke-energy-raids-mosquito-spray-budget/ (last accessed Oct. 1, 2025).

should be restricted to "essential" or "non-replaceable" uses involving minimal human exposure. *Id.*at ¶¶ 40-41. By 1977, Duke Energy acknowledged their responsibility in administering an environmentally safe program on waterways under their control. **Ex. H** at p. DUK_00000289 [redacted] **Ex. L**, DUK_00000479-482. In these updates, Duke Energy confirmed extensive larviciding programs on several reservoirs including Lake Wateree but did not identify the type of larvicide used. Nor do Duke Energy's representations to the public acknowledge that Duke Energy dumped waste fuel and transformer fuel into the Lake.

B. Procedural Background

Plaintiff originally filed suit in South Carolina state court alleging claims of negligence, gross negligence, strict liability, private nuisance, and unjust enrichment. On March 15, 2024, Duke Energy removed the case to this Court. Dkt. 1. On March 31, 2024, Plaintiff moved to remand the case to state court. Dkt. 13. The Court denied Plaintiff's motion to remand on November 4, 2024. Dkt. 19. Plaintiff filed the operative First Amended Complaint on December 11, 2024.

On January 23, 2025, Duke Energy moved to dismiss the First Amended Complaint for failure to state a claim and on other grounds. Dkt. 39. On August 6, 2025, the Court granted in part and denied in part Duke Energy's motion to dismiss. Dkt. 55. First, the Court denied Duke Energy's motion to dismiss Duke Energy Corporation as an improper party. *Id.* at 4-5. Second, the Court held that the FAC properly alleged injuries caused by Duke Power's actions; specifically, "diminution of property values, degradation and loss of natural resources, loss of use and

enjoyment of property, infringement upon inalienable property rights, economic and financial loss, and other personal and emotional injuries." *Id.* at 6. Third, the Court denied Duke Power's motion to dismiss on statute of limitations grounds, finding it better suited to summary judgment. *Id.* at 6-8. Fourth, the Court denied Duke Power's motion to dismiss on the ground that the FAC fails to allege an invasion of property rights, finding that "a physical invasion is [] unrequired." *Id.* at 8-10. Fifth, the Court held that the FAC plausibly alleged claims of negligence, gross negligence, and strict liability, but granted Duke Power's motion to dismiss the unjust enrichment claim. 10-14. Finally, the Court denied Duke Power's motion to strike the FAC's request for punitive damages. *Id.* At 14.

Plaintiff now moves for class certification under Fed. R. Civ. P. 23(a) and (b)(3).

III. LEGAL STANDARD

Courts have long recognized class actions as an essential device for "promoting judicial economy and efficiency" and "afford[ing] aggrieved persons a remedy if it is not economically feasible to obtain relief through the traditional framework of multiple individual damage actions." *Gunnells v. Healthplan Servs., Inc.*, 348 F.3d 417, 424 (4th Cir. 2003) (citation and marks omitted); *see also Amchem Prods., Inc. v. Windsor*, 521 U.S. 591, 617 (1997). Given these important public policy functions, courts "should give Rule 23 a liberal rather than a restrictive construction, adopting a standard of flexibility in application which will in the particular case best serve the ends of justice for the affected parties and…promote judicial efficiency." *Id.* (*quoting In re A.H. Robins*, 880 F.2d 709, 740 (4th Cir.1989) (internal quotation marks omitted); s*ee also Eisen v. Carlisle & Jacquelin*, 391 F.2d 555, 563 (2d Cir. 1968), *rev'd on other grounds* 417 U.S. 156 (1974) ("[I]f there is to be an error made, let it be in favor and not against the maintenance of the class action.").

District courts possess "wide discretion" in certifying a class, and that discretion is entitled

to "substantial deference." *Ward v. Dixie Nat. Life Ins. Co.*, 595 F.3d 164, 179 (4th Cir. 2010) (citation omitted) (may only be reversed if there was an abuse of discretion); *Krakauer v. Dish Network, L.L.C.*, 925 F.3d 643, 654 (4th Cir. 2019) (the trial court is best positioned to bring expertise to bear in deciding certification). A district court's "account of the evidence" will not be reversed if it is "plausible in light of the record viewed in its entirety…." *Williams v. Martorello*, 59 F.4th 68, 86 (4th Cir. 2023) (citation omitted).

In making its findings, the court does not determine whether the plaintiff will prevail, and merits questions may be considered "to the extent—but only to the extent—that they are relevant to determining whether the Rule 23 prerequisites for class certification are satisfied." *Amgen Inc. v. Conn. Ret. Plans & Trust Funds*, 568 U.S. 455, 466 (2013) (citation omitted); *see also Eisen v*, 417 U.S. at 178.

To certify a class, the requirements of Rule 23(a) as well as one of the requirements of Rule 23(b) must be met. Rule 23(a) provides four factors, generally referred to as numerosity, commonality, typicality, and adequacy:

> the class is so numerous that joinder of all members is impracticable, (2) there are questions of law or fact common to the class, (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class, and (4) the representative parties will fairly and adequately protect the interests of the class.

Fed. R. Civ. P. 23(a); *Gunnells*, 348 F.3d at 423 (4th Cir. 2003). Plaintiff seeks certification under Rule 23(b)(3), which permits certification where "questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b)(3). As set out below, Plaintiff's proposed class satisfies the

requirements of Rule 23 and class certification is appropriate[6].

IV. THE PROPOSED CLASS MEETS THE REQUIREMENTS OF RULE 23 AND SHOULD BE CERTIFIED

The Court should certify Plaintiffs' proposed class, as it is readily identifiable and otherwise satisfies the requirements of Rule 23.

A. The Class Is Readily Identifiable.

Before considering whether Plaintiff has met the requirements of Rule 23(a) and (b), the Court must determine as a threshold matter whether the proposed class members are "readily ascertainable based upon objective criteria." *Rowe v. E.I. Dupont De Nemours & Co.*, 262 F.R.D. 451 (D.N.J. 2009). Analogous to ascertainability, the Fourth Circuit has recognized an implied requirement that the proposed class be "readily identifiable." *Career Counseling, Inc. v. Amsterdam Printing & Litho, Inc.*, No. 3:15-CV-05061-JMC, 2017 WL 279768, at *3 (D.S.C. Jan. 23, 2017) (citing *EQT Prod. Co. v. Adair*, 764 F.3d 347 (4th Cir. 2014)). Plaintiffs need not identify every class member at class certification so long as there are objective criteria which can be used to do so. *Id.*; *see also Tillman v. Highland Indus., Inc.*, No. 4:19-CV-02563-SAL, 2021 WL 4483035, at *6 (D.S.C. Sept. 30, 2021).

Plaintiff's Complaint identifies the following class:

"All persons or entities who currently have ownership of any real waterfront property on Lake Wateree."

[6] The Court has broad discretion to alter or expand the class definition as it sees fit. *Walter v. Buffets Inc.*, No. 6:13-CV-02995-JMC, 2015 WL 3903382, at *6 (D.S.C. June 25, 2015) (collecting cases); *Polk v. Montgomery Cnty., Md.*, 782 F.2d 1196, 1201 (4th Cir. 1986) (noting that the "court in *Smith* has changed the definition of the class once and conceivably the trial judge may modify the definition again."); *Pennington v. Fluor Corp.*, 327 F.R.D. 89, 95 (D.S.C. 2018) ("The court is not bound by the class definition proposed in the Amended Complaint and can modify its language as the case progresses.").

Excluded from the Class are:

> Current and former officers and directors of the Defendants; members of the immediate families of the officers and directors of the Defendants; the Defendants' legal representatives, heirs, successors, assigns, any entity in which either of them has or had a controlling interest; any federal, state, or local governmental agencies; Class Counsel or any person retained or working on behalf of Class Counsel in furtherance of the litigation, any judges who have decided or are assigned to decide some or all issues in this case any persons related to a judge in a manner that would disqualify the judge from hearing the case; and any chambers staff working for the assigned judge or other courthouse staff who perform tasks relating to this matter.

Complaint at ¶ 121.

The proposed class definition encompasses two (2) requirements: (1) that Class members own real property; and (2) that the real property include frontage on Lake Wateree. As a matter of public record, Duke Energy owns and controls Lake Wateree and was responsible for the MCP. Plaintiffs allege (and Duke Energy's documents establish) that, in administering the MCP, Duke Energy sprayed transformer oil, used waste oil, and substances containing PCBs upon the shorelines of Lake Wateree and that this program thus impacted every lakefront property. There is nothing subjective in the definition. The properties either share boundaries with Lake Wateree or they do not.

Publicly available data demonstrates that the class includes at least 2,500 lakefront property owners. Moreover, the class comprises only *current* owners, thus eliminating any need to engage in extensive title research. Instead, the class is readily identifiable based on objective criteria and available information. *See e.g. Rowe* 262 F.R.D. 451 at 455 (finding that a class of residential water customers who currently owned their real property was readily ascertainable). *See Simer v. Rios*, 661 F.2d 655, 669 (7th Cir. 1981); *see also Sullivan v. Saint-Gabain Performance Plastics Corp.*¸No. 5:16-cv-125, 2019 WL 8272995, at * 4 (D.Vt. Aug. 23, 2019) (finding ascertainability

satisfied where the challenges of identifying class members were merely organizational). In this case, and based upon objective criteria, Plaintiff has satisfied his burden to demonstrate that the Class is readily identifiable.

B. The Class Satisfies the Requirements of Rule 23(a).

1. Numerosity is met because joinder is impracticable.

Numerosity requires that the "class is so numerous that joinder of all members is impracticable." Fed. R. Civ. P. 23(a)(1). Courts generally consider 40 or more plaintiffs as satisfying the numerosity requirement. *See, e.g., Millwood v. State Farm Life Ins. Co.,* No. 7:19-CV-01445-DCC, 2022 WL 4396199, at *3 (D.S.C. Sept. 23, 2022) (certifying class); *see* 1 *Newberg on Class Actions* § 3:12 (5th ed. 2021) ("[A] class of 40 or more members raises a presumption of impracticability of joinder based on numbers alone[.]"). As previously stated, the potential class comprises the owners of over 2,500 lakefront properties. *See*, **Ex. B**. A presumption of impracticability exists, and Plaintiff has satisfied his burden as to numerosity.

2. Commonality is met because Defendants' conduct creates common questions of law and fact.

Commonality requires "questions of law or fact common to the class." Fed. R. Civ. P. 23(a)(2). It does not, however, require that all "or even most issues" be common; it is enough that "common questions exist." *Central Wesleyan Coll. v. W.R. Grace & Co.*, 143 F.R.D. 628, 636 (D.S.C.), aff'd 6 F.3d 177 (4th Cir. 1993); *Gardner v. Country Club, Inc.*, No; 4:13-CV-03399- BHH, 2017 WL 11613887, at *3 (D.S.C. Jan. 26, 2017) (burden not high). In fact, a single common question that resolves a "central" issue in "one stroke" is sufficient. *Moodie v. Kiawah Island Inn Co., LLC*, 309 F.R.D. 370, 377 (D.S.C. 2015) (citation omitted). "Where the injuries complained of by named plaintiffs allegedly result from the same unlawful pattern, practice, or policy of the defendants, the commonality requirement is usually satisfied." *Parker v. Asbestos*

Processing, LLC, No. 0:11-CV-01800-JFA, 2015 WL 127930, at *7 (D.S.C. Jan. 8, 2015).

Here, the Class member's unique rights as lakefront property owners were impacted by a single course of conduct: Duke Enegy's MCP. The majority of contested factual questions– whether and to what extent Duke Energy used toxic chemicals in the MCP, the decision to shift from these chemicals, the choice of detection limit in Duke Energy internal testing, Duke Energy's public representations and press releases to health officials, neighbors, and customers, the propriety of Duke Energy's disposal of waste oils and transformer oils through direct application to reservoir shorelines – are common to the Class and resolution of these issues is central to the validity of the Class claims. *See e.g., In re Oil Spill by Oil Rig Deepwater Horizon*, 910 F.Supp.2d 891 (E.D.La. 2012) (quoting *M.D. v. Perry*, 675 F.3d 832, 839 (5th Cir. 2012)). Plaintiff has therefore satisfied his burden of demonstrating that common questions of law or fact exist.

3. Typicality is met because Plaintiff has the same claims and would be vindicated by the same rulings as the Class.

Typicality is met if "the claims or defenses of the representative parties are typical of the claims or defenses of the class." Fed. R. Civ. P. 23(a)(3). A class representative's claims are typical if they "arise from the same course of conduct leading to the class claims, and if the same legal theory underlies the claims or defenses." *Gardner*, 2017 WL 11613887, at *5 (D.S.C. Jan. 26, 2017) (citation omitted). However, "[c]omplete identity between the claims constituting each individual action is not required." *Parker*, 2015 WL 127930, at *7 (D.S.C. Jan. 8, 2015) (citation omitted). Typicality and commonality often overlap, and they both are routinely satisfied where claims arise from a standard course of conduct or uniform documents. *See, e.g.*, *Brunson v. Louisiana-Pac. Corp.*, 266 F.R.D. 112, 120 (D.S.C. 2010).

This case involves a single source of contamination. Plaintiff brings property damage

claims arising from Duke Energy's MCP, during which Plaintiff alleges Duke Energy administered thousands of gallons of toxic substances to the shoreline of Lake Wateree. In similar cases, district courts routinely find the claims of the named representative are typical of those of the class. *See Bates v. Tenco Services, Inc.*, 132 F.R.D. 160 (D.S.C. 1990); *In re Methyl Tertiary Butyl Ether (MTBE) Products Liability*, 241 F.R.D. 185, 198 (S.D.N.Y. 2007) ("Each of the named Plaintiffs' claims arise from the same alleged course of conduct (i.e. the gasoline leak) that gives rise to the claims of other class members. Their claims are also based on the same legal theories").

The FAC includes causes of action for negligence, nuisance, trespass, and strict liability. Plaintiff's claims involve the same course of conduct as every member of the Class and Plaintiff's remedies are the same as those remedies available to the Class. Plaintiff alleges damages including diminution in the value of his lakefront property as well as deprivation of the use of natural resources specifically available to lakefront property owners. Each Class member has suffered identical injury and the damages are susceptible to common proof. While the amount of damages may vary, the type will not. Without question, the natural resources within Lake Wateree have been compromised. Plaintiff intends to establish that Duke Energy caused this contamination, and that this contamination resulted in damage to the property owners, including natural resource damages[7]. Where the Plaintiff's claims and those of the class members involve a common nexus of fact, and common legal theories, typicality is generally

[7] In the parties' recent 26.03 submission, Plaintiff identified potential experts in the fields of real estate appraisal and natural resources economics. These are among the experts that Plaintiff is likely to disclose in accordance with the case scheduling order. For purposes of class certification, however, damages need not be susceptible of measurement across the entire class. *See, e.g., FWK Holdings, LLC v. Merck & Co.*, 7 F.4th 227 (4th Cir. 2021) (finding that the district court did not err in certifying an anti-trust class where the plaintiffs intended to establish damages through class wide averages, common to the class).

satisfied. Plaintiff has met his burden of establishing that his claims are typical of the class.

4. No conflicts of interest exist and Plaintiff has and will fairly and adequately represent the interests of the Class.

Adequacy involves two questions: "(i) whether plaintiffs have any interest antagonistic to the rest of the class; and (ii) whether plaintiffs' counsel are qualified, experienced and generally able to conduct the proposed litigation." *S.C. Nat. Bank v. Stone*, 139 F.R.D. 325, 329–30 (D.S.C. 1991) (citation and marks omitted). Counsel "are presumed competent and sufficiently experienced to prosecute the action on behalf of the class." *Matthews v. Buel, Inc.*, No. CA 7:11- 162-TMC, 2012 WL 1825273, at *2 (D.S.C. May 18, 2012).

a. Plaintiff has no interests antagonistic to the Class

Plaintiff is a lakefront property owner with real property adjoining Lake Wateree and has alleged claims typical of the class.

As stated in the FAC:

> *Adequacy*: Plaintiffs will fairly and adequately represent and protect the interests of the Class and have retained counsel with substantial experience in litigating complex cases, including class actions. Plaintiffs' claims are representative of the claims of the other members of the Class. That is, Plaintiffs and members of the Class sustained damages as a result of Defendants' uniform conduct. Plaintiffs also have no interests antagonistic to those of the Class, and Defendants have no defenses unique to Plaintiffs. Plaintiffs and their Counsel will vigorously prosecute this action on behalf of the Class and have the financial ability to do so. Neither Plaintiffs nor counsel have any interest adverse to other Class Members. Rather, Plaintiffs share the same interest as all Class Members in remedying Defendants' unlawful conduct.

FAC at ¶ 128.

Plaintiff knows of no reason that he would be unable to fairly represent the interests of the class. Plaintiff is aware of no unique defenses applicable to him but not other lakefront property owners. Plaintiff is therefore competent to serve as the Class representative in this matter.

b. Plaintiff's Counsel are qualified to conduct the proposed litigation

Counsel for Plaintiff are experienced in class and mass action practice and have the resources, both financial and otherwise to prosecute this case. (*See* **Ex. M**, Firm Resumes). Collectively, Counsel have decades of practice among them and have been involved in multiple complex and class action cases, including representation in mass tort cases and on behalf of the State of South Carolina. They have vigorously pursued this case from inception – including early motions' practice, initial discovery, and by advancing the funds necessary for litigation. Counsel is dedicated to continuing to pursue this case.

Plaintiff has no interests antagonistic to the Class and Counsel are of capable of pursuing this litigation. Plaintiff will adequately represent the interests of the Class.

C. The Class Satisfies the Requirements of Rule 23(b).

Plaintiff seeks certification under Rule 23(b)(3) which provides that a class action is appropriate if "the court finds that the questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b)(3). The predominance and superiority requirements are satisfied here.

1. Common Questions of Fact and Law Predominate.

The Rule 23(b)(3) predominance inquiry "tests whether proposed classes are sufficiently cohesive to warrant adjudication by representation." *Amchem Prods., Inc.*, 521 U.S. at 623. The predominance test is similar to the commonality test, but more stringent. *Id.* The question is "qualitative rather than quantitative." *Gunnells*, 348 F.3d at 429 (quoting *In re Am. Med. Sys., Inc.*, 75 F.3d 1069, 1080 (6th Cir. 1996)). A single important issue "central to the validity of each one of the claims in a class action, if it can be resolved in one stroke, can justify class treatment." *Butler v. Sears, Roebuck & Co.*, 727 F.3d 796, 801 (7th Cir. 2013) (*quoting Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338, 339, 131 S. Ct. 2541, 2551 (2011) (marks omitted);

see also Klay v. Humana, Inc., 382 F. 3d 1241, 1254 (11th Cir. 2004) ("not necessary that all questions of law or fact be common"). "The entire notion of predominance implies that the plaintiffs' claims need not be identical, and, as the Supreme Court has noted, a class can meet this requirement even though other important matters will have to be tried separately." *Krakauer v. Dish Network, L.L.C.*, 925 F.3d 643, 658 (4th Cir. 2019) (citation omitted).

Liability is "a focal point for consideration of predominance" and thus where "basic liability can be established readily by common issues" then certification is appropriate. *Gardner*, 2017 WL 11613887, at *6 (citing *Gunnells*, 348 F.3d at 428). Where class members "were exposed to the same risk of harm," by being subject to a common practice or policy for example, predominance is generally met. *Stillmock v. Weis Markets, Inc.*, 385 F. App'x 267, 273 (4th Cir. 2010). The need for "individualized proof of damages" will not defeat predominance. *Gunnells*, 348 F.3d at 429; *Thomas v. Louisiana-Pac. Corp.*, 246 F.R.D. 505, 516–17 (D.S.C. 2007). Predominance "is normally satisfied where there is an essential common factual link, such as standardized documents and practices." *Talbott v. GC Servs. Ltd. P'ship*, 191 F.R.D. 99, 106 (W.D. Va. 2000) (citation omitted). Again, as with all class certification issues, Plaintiffs need not demonstrate at this stage that they will ultimately succeed on their claims. *Bell v. PNC Bank, Nat'l Ass'n*, 800 F.3d 360, 376 (7th Cir. 2015).

The MCP, which "exposed [class members] to the same risk of harm," is the type of common practice or policy that the Fourth Circuit has held satisfies predominance. *Stillmock*, 385 F. App'x at 273 (4th Cir. 2010). The process itself was identical and applied uniformly across the Class. *See, e.g., In re TD Bank, N.A. Debit Card Overdraft Fee Litig.*, 325 F.R.D. 136, 157 (D.S.C. 2018) (application of "same overdraft accounting policy" supported predominance). By definition every class member owned property sharing a boundary with Lake

Wateree, and was impacted in the same manner by Defendants' conduct.

Plaintiff's Complaint includes common questions relating to Defendants' conduct. These questions include: (1) whether Duke Energy's use and/or continued use of transformer oil in its MCPwas reasonable; (2) whether PCBs from Duke Energy's intentional spraying of transformer oil interfered with Class members' inalienable property rights including littoral and riparian rights; (3) whether the continued presence of PCBs from Duke Energy's MCP has impacted the value and use of the Class members' properties including the use and access to unadulterated natural resources such as fish and other aquatic life; (4) whether Duke Energy actively concealed their role in contaminating Lake Wateree; (5) whether Duke Energy failed to exercise due and reasonable care in managing the MCP upon Lake Wateree; (6) whether Duke Energy was exclusively responsible for the control, management, and maintenance of Lake Wateree; (7) whether Duke Energy's undertaking surveys and studies to test Lake Wateree and other impacted waterways for PCB contamination using falsely elevated detection levels was done in an effort to conceal Duke Energy's role in contaminating Lake Wateree; and (8) whether Duke Energy knew or should have known that errant PCB disposal practices would result in permanent contamination to impacted waterways. *Id*. at ¶ 125. These questions focus on Duke Energy's knowledge and conduct, and the same documents, testimony, and operative facts will apply to every homeowner's claim. These common questions predominate over any unique issues that may exist.

Plaintiff brings causes of action for (1) negligence; (2) strict liability; (3) trespass; and (4) nuisance. These legal claims are also well suited for class certification and will be determined by the same methods of proof.

a. Negligence

"An action sounding in negligence requires the plaintiff to show a duty on the part of the

defendant, a breach of that duty by an act of omission or commission, and that such breach of duty may be the proximate cause of plaintiff's injuries." *Sherill v. Southern Bell Tel. & Tel. Co.*, 260 S.C. 294, 197 S.E.2d 283 (S.C. 1973); *see Babb v. Lee County Landfill, SC, LLC*, 405 S.C. 129, 153, 747 S.E.2d 468 (S.C. 2013) (to prevail on a claim of negligence arising from offensive odors, the plaintiff must still establish the requisite elements of duty, breach, causation, and damages). Where an act is voluntarily undertaken, "the actor assumes the duty to use due care." *Miller v. City of Camden*, 494 S.E.2d 813, 815 (S.C. 1997) (citing *Russell v. City of Columbia*, 406 S.E.2d 338, 340 (S.C. 1991)); *see also, e.g., Edwards v. Lexington Cnty. Sheriff's Dep't*, 688 S.E.2d 125, 128 (S.C. 2010) (noting there are five exceptions to the general rule that one has no duty to act, including where the defendant has a special relationship to the plaintiff and where the defendant voluntarily undertakes a duty). Generally, "[o]ne who controls the use of property has a duty of care not to harm others by its use." *Miller*, 494 S.E.2d at 815.

Whether Duke Energy owed a duty of care and whether Duke Energy breached that duty will be decided in the same manner, and by the same proof, for every lakefront property owner.

b. Strict Liability for Ultrahazardous Activity

Under South Carolina law, whether a particular activity is designated as ultrahazardous must be decided on a case-by-case basis. *Ravan v. Greenville County*¸315 S.C. 447, 434 S.E.2d 296 (S.C. Ct. App. 1993); *T&E Industries, Inc. v. Safety Light Corp.*, 123 N.J. 371, 587 A.2d 1249, 1259 (N.J. 1991). In this case, the question of whether the MCP constituted an ultrahazardous activity is the same as to every Class member.

c. Trespass

South Carolina courts have defined trespass as "[t]he unwarrantable entry on land in the peaceable possession of another." *Tillman*, 486 F. Supp. 3d at 1040-41 (citing *Ralph v.*

McLaughlin, 834 S.E.2d 213, 229 (S.C. Ct. App. 2019)); *see also Snow v. City of Columbia*, 409 S.E.2d 797, 802 (S.C. Ct. App. 1991). Trespass exists "without regard to the degree of force used, the means by which the enclosure is broken, or the extent of the damage inflicted." *Snow*, 409 S.E.2d at 799. An actionable trespass requires "an affirmative act." *Tillman*, 486 F. Supp. 3d 1026. In other words, "the invasion of the land must be intentional, and the harm caused must be the direct result of that invasion." *Id.* To recover for trespass, a plaintiff must demonstrate: "an invasion (a) which interfered with the right of the exclusive possession of the land, and (b) which was a direct result of some act committed by the defendant." *Graham v. Town of Lotta*, 789 S.E.2d 71, 86 (S.C. Ct. App. 2016) (quoting *Prosser and Keeton on Torts* § 13).

Plaintiff has alleged that Duke Energy administered its MCP on the shorelines of Lake Wateree. Whether this constitutes an affirmative act of trespass will be determined under South Carolina law, and will be the same for every Class member.

d. Nuisance

South Carolina recognizes a landowner's right to be free from the unauthorized infringement of the peaceful use and enjoyment of her property. *See Babb v. Lee Cty. Landfill SC, LLC*, 747 S.E.2d 468, 473 (S.C. 2013); *Clark v. Greenville Cnty.*, 437 S.E.2d 117, 119 (S.C 1993) ("Nuisance law is based on the premise that '[e]very citizen holds his property subject to the implied obligation that he will use it in such a way as not to prevent others from enjoying the use of their property'"); *Peden v. Furman University*, 151 S.E. 907, 912 (S.C. 1930); *Deason v. Southern Railway*, 140 S.E. 575, 577 (S.C. 1914). To demonstrate nuisance, a landowner must prove unreasonable interference with the use and enjoyment of property. *Johnson v. Hoechst Celanese Corp.*, 453 S.E.2d 908 (S.C. Ct. App. 1995); *Strong v. Winn-Dixie Stores, Inc.*, 125 S.E.2d 628, 632 (S.C. 1962) ("A nuisance is anything which works hurt, inconvenience, or

damages; anything which essentially interferes with the enjoyment of life or property" (internal citations omitted).

Whether Duke Energy's MCP, which involved administering toxic substances to Lake Wateree, constitutes a nuisance as to Duke Energy's lakefront neighbors will be determined under South Carolina law, and will require the same proof, including documents, and testimony, for every Class member.

As set forth herein, Duke Energy's exclusive control over Lake Wateree and the administration of the MCP are central to the factual issues and legal claims in this case and in every Class member's case. Plaintiff has demonstrated that common questions of law and fact predominate over any individualized claims.

a. Class treatment is the superior method to adjudicate these claims.

To determine whether proceeding as a Class is a superior method of adjudication, Rule 23(b)(3) provides factors to be considered:

> (A) the class members' interests in individually controlling the prosecution or defense of separate actions; (B) the extent and nature of any litigation concerning the controversy already begun by or against class members; (C) the desirability or undesirability of concentrating the litigation of the claims in the particular forum; and (D) the likely difficulties in managing a class action.

Fed. R. Civ. P. 23(b)(3). Here, each factor weighs in favor of certification.

i. The Class Members' interests in individually controlling the prosecution

Individual litigation in this case would inhibit, rather than enhance, Class members' rights. The Class claims arise under South Carolina law, which will be applied uniformly to each Class member. Duke Energy concealed its role in contaminating Lake Wateree and the individual proof required to demonstrate this claim – though extensive – will be wholly redundant. Each Class member will rely upon the same proof, including fact and expert discovery. Where there is a likelihood that individual trials would create enormous redundancy, including duplicative

discovery, testimony by the same witnesses, and relitigation of similar or identical legal issues, district courts have appropriately determined class certification is superior to individual litigation. *Spurlock v. Wexford Health Sources, Inc.*, C/A No. 3:23-cv-0476, 2025 WL 2085053, * 52 (S.D.W.Va. Jul. 24, 2025) ("[I]f common questions predominate regarding liability, then courts generally find the predominance requirement to be satisfied even if individual damages issues remain") (quoting *Soutter v. Equifax Info. Servs., LLC*, 307 F.R.D. 183, 241 (E.D.Va. 2015)).

Each Class member in this case was impacted in the same way by Duke Energy's conduct. Indeed, Duke Energy's own documents confirm that the MCP was conducted in a uniform manner. The Class will benefit from consistent adjudication of common claims. In addition, proceeding as a class will provide court access for potentially uneconomical claims, when compared with the expenses of litigation. *See Gunnels*, 348 F.3d 417, 426.

ii. The Extent and Nature of Existing Litigation Relating to the MCP

Plaintiff is aware of no other claims by Lake Wateree property owners relating to the MCP. The absence of other litigation underscores that property owners were not on notice of their claims. In this case, which will necessitate extensive written and testimonial discovery, individual litigation is also cost prohibitive and would likely discourage individual claims. *See Stillmock v. Weis Mkts., Inc*., 385 Fed.Appx. 267, 275 (4th Cir. 2010) (holding a class action was superior when "there is no indication… that class members would have a strong interest in individual litigation"); *see also Bertulli v. Independent Ass'n of Continental Pilots*, 242 F.3d 290, 299 (5th Cir. 2001) (noting that the plaintiffs met Rule 23(b)(3)'s superiority requirement, and finding that even in instances where attorney's fees are available, a class action may nevertheless be more feasible than individual actions).

iii. The Desirability of Concentrating the Litigation in this Forum

The real property that underscores this lawsuit is in this forum and this court is adept at interpreting the nuances of South Carolina law that will define the action. There is no other forum hosting litigation. This factor weighs in favor of superiority.

iv. Case Management

Manageability focuses on whether administration of the class will enhance efficiency. The law of South Carolina will apply to every claim in this case, and the class is limited to property owners in South Carolina. Duke Energy's liability will be proven with its own policies, procedures, omissions and commissions. Class members have suffered uniform categories of damages susceptible to common proof (i.e. whether and to what extent the degradation of natural resources applies to the class members). In comparison to other complex litigation, involving multiple forums, and out-of-state Class members, managing this case after certification will be relatively straightforward. Class treatment is the superior method for adjudicating this dispute.

a. The Undersigned Should be Appointed Class Counsel.

Finally, Plaintiff requests that the Court appoint Savage, Royal & Sheheen, LLP, Wyche, P.A., and Solomons and Speights as Class Counsel. Rule 23(g) requires that a "court that certifies a class must appoint class counsel." Fed. R. Civ. P. 23(g)(1). It provides four factors: "(i) the work counsel has done in identifying or investigating potential claims in the action; (ii) counsel's experience in handling class actions, other complex litigation and the types of claims asserted in the action;(iii) counsel's knowledge of the applicable law; and (iv) the resources that counsel will commit to representing the class." Fed. R. Civ. P. 23(g)(1)(A). The Court may also consider "any other matter pertinent to counsel's ability to fairly and adequately represent the interests of the class." *Id.*

Plaintiffs' counsel respectfully submit that they have, and will continue to, "fairly and

adequately represent the interests of the class." Fed. R. Civ. P. 23(g)(4). Counsel has decades of experience prosecuting class and mass tort cases, and complex litigation, and has and will continue to provide financial and other resources to the litigation. Appointing the undersigned as Class Counsel is therefore appropriate.

III. CONCLUSION

The Court should certify Plaintiffs' proposed Class as it is readily identifiable and easily satisfies the requirements of Rule 23. Numerosity is satisfied as the class exceeds 2,600 members. Numerous common questions exist because Plaintiff's claims turn on Defendants' common practices, policies and procedures, as well as Defendants' public representations relating to the offending conduct. These central common questions outweigh any individual issues which may arise and therefore satisfy the predominance requirement. Plaintiff's claims are not merely typical of the Class, but identical, and the interests of Plaintiff are identical to those of the Class. Class treatment is the superior method for adjudicating this dispute, and management of this litigation going forward presents no manageability issues. Therefore, for the foregoing reasons and based upon the law and evidence provided, Plaintiff respectfully requests that the Court grant this motion and certify the proposed class, and appoint the undersigned as Class Counsel.

Respectfully submitted,

WYCHE, P.A.

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October 1, 2025

Exhibit A

Duke Energy Carolinas, LLC Catawba-Wateree Project FERC Project No. 2232 Shoreline Management Plan, Oct. 3, 2016

Catawba-Wateree Project

FERC Project No. 2232

Shoreline Management Plan



Duke Energy Carolinas, LLC
Charlotte, North Carolina

October 3, 2016

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Acronyms and Abbreviations

AMSL	above mean sea level
Catawba-Wateree Project	Catawba-Wateree Hydroelectric Project
Commission	Federal Energy Regulatory Commission
DCZ	Downstream Clear Zone
Duke Energy	Duke Energy Carolinas, LLC or the Licensee
DE-LS	Duke Energy Lake Services
FERC	Federal Energy Regulatory Commission
ft	feet or foot
GIS	Geographic Information System
HEP	Habitat Enhancement Program
IMZ	Impact Minimization Zone
LUPS	Lake Use Policy Statements
NC	North Carolina
NCDEQ	North Carolina Department of Environmental Quality
NCDNCR	North Carolina Department of Natural and Cultural Resources
NCWRC	North Carolina Wildlife Resources Commission
PA	Programmatic Agreement
Project	Catawba-Wateree Hydroelectric Project
RMP	Recreation Management Plan
SCDNR	South Carolina Department of Natural Resources
SCDHEC	South Carolina Department of Health and Environmental Control
SHPO	State Historic Preservation Office
SMGs	Shoreline Management Guidelines

SMP	Shoreline Management Plan
SMP Maps	Shoreline Classification Maps
SSTSP	Shoreline Stabilization Technique Selection Process
SWFHS	Shallow Water Fish Habitat Survey
THPO	Tribal Historic Preservation Office
TPM	True Public Marina

1.0 Introduction

Duke Energy Carolinas, LLC (Duke Energy) is the Federal Energy Regulatory Commission (FERC or Commission) licensee for the Catawba-Wateree Hydroelectric Project (FERC No. 2232, Catawba-Wateree Project or Project).

The FERC license identifies all Project purposes (such as hydro station and reservoir operation and maintenance, flowage, public recreation, public access, protection of environmental resources, and shoreline control) and specifies requirements associated with operation of the Project. The Licensee is responsible for operating and maintaining the Project in accordance with the license requirements and for ensuring Project lands and waters are protected and maintained for their designated Project purposes. Licensees have an ongoing responsibility to supervise and manage shoreline development to ensure it is not inconsistent with Project purposes, including protection and enhancement of the Project's scenic, recreational, cultural, and other environmental values. This Shoreline Management Plan (SMP) is a comprehensive management tool for managing requests for shoreline activities within the FERC Project Boundary in a manner consistent with Project purposes.

This SMP includes the following components:

- SMP Maps (Appendix A)
- Shoreline Classifications and Lake Use Restrictions (Appendix B)
- Shoreline Management Guidelines (SMGs) (Appendix C), which includes the Shoreline Stabilization Technique Selection Process (SSTSP)
- Classification Rules (Appendix D)
- Process for Structure Renovation and Removal (Appendix E)
- True Public Marina Requirements (Appendix F)
- Shoreline Stabilization Technique Selection Process (Appendix G)
- Consultation Record (Appendix H)

1.1 Project Area Description

The Catawba-Wateree Hydroelectric Project is composed of 13 hydropower plants, 11 developments, and 11 lakes or reservoirs. The Catawba-Wateree Project spans over 225 river

miles and encompasses approximately 1,795 miles of shoreline within nine counties in North Carolina and five counties in South Carolina. The existing Project Boundary around all Project developments includes the area within the Normal Full Pond Elevation of the Project reservoirs and the lands immediately surrounding the dams, powerhouses, and Project Recreation Sites.

1.1.1 Bridgewater Development

The Bridgewater Development is the northernmost development in the Catawba-Wateree system, located northwest of Morganton in Burke and McDowell counties, North Carolina. Bridgewater Development includes a reservoir (Lake James), three dams, two spillways, an intake structure, and a powerhouse. Lake James has a surface area of about 6,754 acres and 153 shoreline miles, including islands, at the Normal Full Pond Elevation of 1,200 feet (ft) above mean sea level (AMSL).

1.1.2 Rhodhiss Development

The Rhodhiss Development is a relatively small development within the Catawba-Wateree system, located northeast of Morganton in Burke and Caldwell counties, North Carolina. The development includes a reservoir, dam, powerhouse, and transmission line. The reservoir (Lake Rhodhiss) has a surface area of about 2,724 acres and approximately 106.8 miles of shoreline at a Normal Full Pond Elevation of 995.1 feet (AMSL).

1.1.3 Oxford Development

The Oxford Development is downstream of the Rhodhiss Development and northeast of the City of Hickory in Caldwell, Burke, Catawba, and Alexander counties, North Carolina. This development includes a reservoir, dam, and powerhouse. The reservoir (Lake Hickory) has a surface area of about 4,072 acres and approximately 115.7 shoreline miles at a Normal Full Pond Elevation of 935.0 feet (AMSL).

1.1.4 Lookout Shoals Development

Lookout Shoals Development is located downstream of Lake Hickory west of Statesville in Alexander, Catawba, and Iredell counties, North Carolina. The Lookout Shoals Development includes a reservoir, dam, powerhouse, and transmission line. The reservoir (Lookout Shoals Lake) is the smallest in the North Carolina portion of the Catawba Wateree Project with a surface

area of about 1,155 acres and approximately 35.2 miles of shoreline including islands at a Normal Full Pond Elevation of 838.1 feet (AMSL).

1.1.5 Cowans Ford Development

The Cowans Ford Development is located northwest of Charlotte in Mecklenburg, Iredell, Catawba and Lincoln counties, North Carolina. The Cowans Ford Development includes a reservoir, dam, saddle dike, powerhouse, and transmission line. The reservoir (Lake Norman) is the largest reservoir in the Catawba-Wateree system with a surface area of about 32,339 acres and approximately 603.1 miles of shoreline including islands at Normal Full Pond Elevation of 760.0 feet (AMSL).

1.1.6 Mountain Island Development

The Mountain Island Development is located downstream of Lake Norman, northwest of Charlotte, in Lincoln, Mecklenburg, and Gaston counties, North Carolina. The development includes a reservoir, dam, and powerhouse. The reservoir (Mountain Island Lake) has a surface area of about 3,117 acres and approximately 96.5 miles of shoreline including islands at a Normal Full Pond Elevation of 647.5 feet (AMSL).

1.1.7 Wylie Development

The Wylie Development is located southwest of Charlotte in Gaston and Mecklenburg Counties, North Carolina and York County, South Carolina. The development includes a reservoir, dam, and powerhouse. The reservoir (Lake Wylie) has a surface area of about 12,177 acres and approximately 348.5 shoreline miles including islands at a Normal Full Pond Elevation of 569.4 feet (AMSL).

1.1.8 Fishing Creek Development

The Fishing Creek Development is located downstream of Lake Wylie and southeast of Rock Hill in Lancaster and Chester counties, South Carolina. The development includes a reservoir, dam, and powerhouse. The reservoir (Fishing Creek Reservoir) has a surface area of about 3,431 acres and approximately 85.1 shoreline miles including islands at a Normal Full Pond Elevation of 417.2 feet (AMSL).

1.1.9 Great Falls – Dearborn Development

The Great Falls-Dearborn Development is located downstream of Fishing Creek Reservoir in Chester, Lancaster, and Fairfield counties, South Carolina. This development includes a diversion dam (Great Falls Diversion Dam), reservoir (Great Falls Reservoir), Great Falls Long Bypassed Reach, Great Falls Short Bypass Spillway, Great Falls Short Bypassed Reach, Great Falls Dam and Powerhouse, Dearborn Dam and Powerhouse, and transmission lines. Two large islands, Mountain Island and Big Island, are also located in the section of the Catawba River impounded by the two dams. Great Falls Reservoir is the smallest reservoir in the Catawba-Wateree Project with a surface area of about 353 acres and approximately 13.1 shoreline miles including islands at a Normal Full Pond Elevation of 355.8 feet (AMSL).

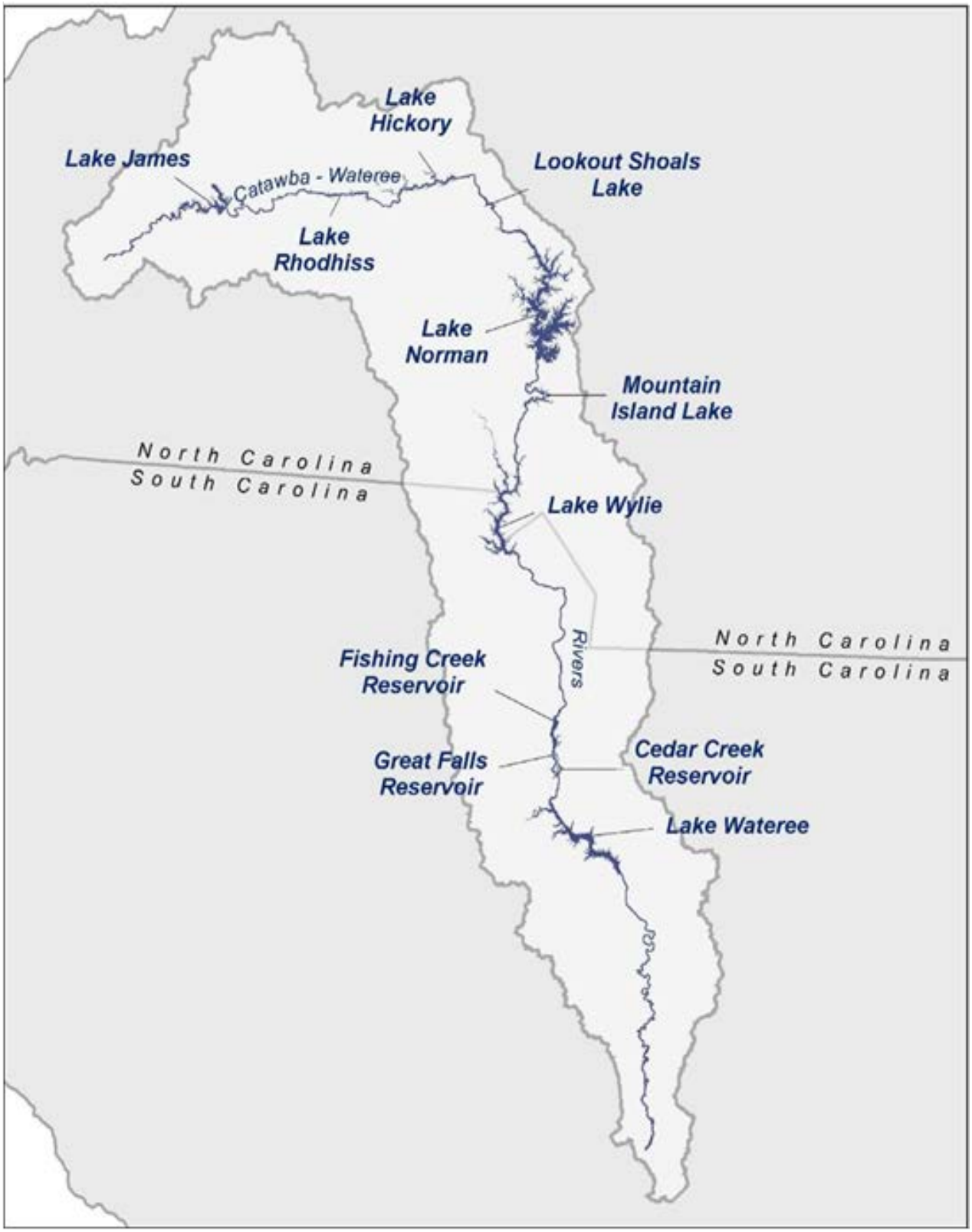
1.1.10 Rocky Creek - Cedar Creek Development

The Rocky Creek-Cedar Creek Development is located southeast of Great Falls, South Carolina in Chester, Fairfield, and Lancaster counties. The development includes a reservoir (Cedar Creek Reservoir), dam (Rocky Creek-Cedar Creek Dam), a gated spillway, a non-gated overflow spillway, Cedar Creek Powerhouse, a forebay canal leading to the Rocky Creek Powerhouse, Rocky Creek Powerhouse, and transmission lines. Cedar Creek Reservoir has a surface area of about 748 acres and approximately 23.2 miles of shoreline including islands at a Normal Full Pond Elevation of 284.4 feet (AMSL).

1.1.11 Wateree Development

The Wateree Development is located northeast of Columbia, South Carolina in Lancaster, Kershaw, and Fairfield counties. The development includes a reservoir, dam, and powerhouse. The reservoir (Lake Wateree) is the second largest reservoir in the Catawba-Wateree system, and has a surface area of about 13,025 acres and approximately 214.9 shoreline miles including islands at a Normal Full Pond Elevation of 225.5 feet (AMSL).

Figure 1. Project Location Map



1.2 History of Shoreline Management

Duke Energy initially developed and implemented Shoreline Management Guidelines (SMGs) for the Catawba-Wateree Project reservoirs in the mid-1980s. After Duke Energy initially developed and implemented SMGs for the Catawba-Wateree Project reservoirs in the mid-1980s, the original SMGs were then implemented at other Duke Energy hydroelectric projects in North and South Carolina by the late-1980s. Each hydroelectric project now has its own independent SMP; this SMP and its SMGs now apply only to the Catawba-Wateree Project.

In 1994, Duke Energy revised the SMGs for the Project and included them in the initial comprehensive SMP filed with FERC (October 11, 1994). On February 2, 1996, the Commission issued an order requiring Duke Energy to develop a plan to further refine the SMP. On February 3, 1997, Duke Energy filed with the Commission a plan for reviewing and revising the SMP to include proposed measures for: consultation with resource agencies and other concerned stakeholders; identification and protection of shallow water fisheries, terrestrial species habitats and aquatic plant management; reclassification of the Project reservoir shoreline areas; and proposed recreation facilities and upgrades. Duke Energy also proposed to develop a shoreline classification system and establish appropriate lake use restrictions associated with critical habitat areas. The Commission issued an Order on June 10, 1998, approving Duke Energy's proposed plan for the SMP (83 FERC ¶ 62,223).

On September 30, 1998, and supplemented on May 28, 1999, Duke Energy filed the revised SMP maps, shoreline classifications, and associated lake use restrictions for the Project. This included the results of a shallow water fish habitat survey (SWFHS) and maps delineating the various shoreline habitat types, revisions to the shoreline classification system which defines the allowable uses and restrictions on shoreline uses; and the Shoreline Stabilization Technique Selection Process (SSTSP), as required by the February 2, 1996 Order. On, December 1, 2000, the Commission issued an Order Modifying and Approving the Revised Shoreline Classification Maps (93 FERC ¶ 62,159). This order also required Duke Energy to conduct and file the results of a woody debris study.

On July 30, 2001, with supplements filed on September 1, 2001, and July 31, 2002, Duke Energy filed an application with the Commission to amend the SMP. The revised SMP consisted of the

following components: (1) the SWFHS and maps delineating various habitat types (these data and maps were used as a basis for the classification maps); (2) the shoreline classification system which defines the allowable uses and restrictions associated with each lake use and maps which delineate the various categories of shoreline uses; (3) proposed recreational improvements at the Project reservoirs; (4) the SSTSP; (5) the Access Area Improvement Initiative (AAII); (6) the Riparian Education Program; (7) the Structure Renovation Process; (8) the True Public Marina Program and; (9) the Habitat Enhancement and Woody Debris Management Program. FERC approved this revised SMP (2003 SMP) on October 15, 2003 (105 FERC ¶ 62, 027).

As part of the 2003 SMP, Duke Energy, the North Carolina Wildlife Resources Commission (NCWRC), and the South Carolina Department of Natural Resources (SCDNR) collaboratively established the Habitat Enhancement Program (HEP). The HEP was developed to resolve issues associated with shoreline development and protection or mitigation of woody debris within the Project. The HEP also provides an effective means for allowing continued private and public recreational access to Project lakes while also cooperatively enhancing fish and wildlife habitat.

Duke Energy began relicensing the Project in 2003. Relicensing stakeholders were interested in lake use permitting and shoreline management. Duke Energy convened study teams composed of resource agencies and other interested stakeholders in North and South Carolina to evaluate shoreline management at the Project. The shoreline management study teams were convened to: 1) update the shoreline classification maps to incorporate shoreline development (e.g., piers, shoreline stabilization, water intakes, commercial marinas, etc.), and navigational hazards identified by the wildlife resource agencies and additional data gathered by other relicensing studies; 2) revise and update the SMGs previously revised in 1996 and submitted with the 2001 filing of the SMP; and 3) revise shoreline classification definitions to reflect changes and updates. The shoreline maps, SMGs, and definitions were updated because of changes in development activities that had taken place within the Project Boundary since the filing of the 2003 Commission approved SMP. Between 2004 and 2006 and in conjunction with Project relicensing, a total of 30 study team meetings were held related to shoreline management.

On August 29, 2006, as part of the Project License Application, Duke Energy filed updates to the shoreline classification maps, SMGs, and shoreline classification definitions. These updates

were also included as an appendix to the Comprehensive Relicensing Agreement filed with the license application. Implementation of the 2006 updates to the maps, SMGs, and definitions filed with the license application began on September 1, 2006. Since 2006, the Commission has approved other shoreline reclassifications and the correction of mapping errors (See 150 FERC ¶ 62,179 (2015); 150 FERC ¶ 62,046 (2015); 136 FERC ¶ 62,084 (2011); 126 FERC ¶ 62,121 (2009); 123 FERC ¶ 62,040 (2008); 118 FERC ¶ 62,072 (2007)).

On November 25, 2015, the Commission issued the Order Issuing New License (153 FERC ¶ 62,134) for the Catawba-Wateree Project. Article 409 of the Project License requires Duke Energy to submit an updated SMP incorporating the SMP components included as Appendix J of the Comprehensive Relicensing Agreement (i.e., Shoreline Classifications and Lake Use Restrictions; SMGs; True Public Marina Requirements, Shoreline Stabilization Technique Selection Process) and 2003 SMP, as amended, with the following modifications:

(1) A provision for addressing any Licensee-requested authority to make changes to the SMP, Shoreline Classification Maps, or SMGs without prior Commission approval, along with an explanation of the type, nature, and scope of the Licensee's authority to make such changes;
(2) A provision for addressing how and when shoreline reclassification requests, including identified mapping errors, will be filed with the Commission for approval; and
(3) A provision that every 10 years, the Licensee must file a report describing whether or not revisions to the SMP, including the Shoreline Classification Maps and SMGs, are needed. The report must include an evaluation of the adequacy of the SMP and whether or not changes are warranted. If revisions are needed, the Licensee may choose to either (a) provide a plan and schedule for filing the revision, or (b) file the revised SMP with the report (red-line documents are preferred so that plan modifications can be easily identified).

1.3 Goals and Objectives of the SMP

The primary goal of the SMP is to provide for public and private access to Project lands and waters while appropriately managing the Project's natural and cultural resources and protecting

the Project's primary function of electricity production while maintaining compliance with Articles 409 and 411 of the Project License, and consistent with other license requirements.

To support this goal, Duke Energy's objectives are to:

- Use appropriate data (e.g., SWFHS maps, digital aerial photography, and Recreation Use and Needs Study) to develop the SMP
- Improve this SMP based upon experience gained while implementing the 2003 SMP
- Coordinate with other Project plans (e.g., Recreation Management Plan (RMP), Historic Properties Management Plan, species protection plans, etc.) required by the Project License and remove redundant information
- Meet FERC requirements set forth in Article 409 of the License
- Refine the 2006 shoreline classification maps to account for changes in shoreline development and mapping errors identified since that time
- Provide a tool for use by Duke Energy, resource agencies, and FERC staff to review requests for use of the Project shorelines and resources
- Consult with appropriate resource management agencies to:
  - Identify environmentally valuable shoreline habitat for aquatic and terrestrial species and provide appropriate protections for such habitat
  - Protect important cultural and tribal resources
  - Describe how agencies' and other stakeholders' comments and recommendations were or were not incorporated into the SMP

Management of islands and Project Recreation Sites are addressed in both the SMP and RMP. The shoreline along the islands and Project Recreation Sites will be managed by the SMP but future updates to the SMP may include shifting management of these areas completely to the RMP.

2.0 Shoreline Classifications Overview

Duke Energy uses a shoreline management classification system to categorize the Project shoreline based on the characteristics of the shoreline. The shoreline around all Project lakes was inventoried to identify areas of importance for wildlife, fish spawning and rearing, and

cultural resources, and specific lake use restrictions were created to protect and enhance these resources. Duke Energy classifies the shorelines of the reservoirs, as identified in the SMP maps (Appendix A), to reflect the current shoreline uses, other characteristics of the shoreline, and to provide guidance for consideration of future lake use requests.

Each request for non-Project use of Project lands and waters is evaluated in the context of the associated shoreline classifications. The Shoreline Classifications and Lake Use Restrictions (Appendix B) are identical to those developed during Project relicensing and included in the Comprehensive Relicensing Agreement. In order to maintain consistency with other management plans and FERC terminology, the previously referenced Public Access Areas are now referenced as Project Recreation Sites. Project shoreline classifications are generally summarized below; see the Shoreline Classifications and Lake Use Restrictions (Appendix B) for additional detail.

- **Environmental**—Vegetated areas or cove heads with stream confluence. These types of shorelines exist where either of the following two criteria are met: 1) stable, wetland-type habitat and emergent vegetation, or 2) intermittent or permanent streams enter the upper ends (i.e., heads) of shallow coves (with or lacking vegetation). The primary importance of these areas is to provide spawning, rearing, and nursery habitat for fish, and rearing, nursery and adult habitat for amphibians, reptiles and birds. No vegetation removal, construction, excavation, or shoreline stabilization is permitted.
- **Bottomland Hardwood Area**— Areas typically consisting of a diverse and well-developed tree canopy consisting of hydrophytic tree species such as red maple, blackgum, sweetgum, willow oak, laurel oak, water oak, green ash, sycamore, river birch and black willow. The soils are typically sandy, organically rich, alluvial soils that exhibit hydric soil conditions. These areas have gentle slopes and often are associated with a drainage area or stream confluence. As such, they are often found concurrently with Environmental areas. No vegetation removal, construction, excavation, or shoreline stabilization is permitted.
- **Natural**— These areas have characteristics (i.e., shallow water, isolated berms, significant cultural resources or significant terrestrial habitat areas) that make most types

of development inside the Project Boundaries undesirable from an overall lake management standpoint. No vegetation removal, construction, or excavation is permitted.

- **Impact Minimization Zone (IMZ)**—Project lands and waters that have specifically-identified importance on a given lake from a scenic, environmental, or cultural standpoint but protection of those important values does not necessarily preclude private, commercial, business or industrial access to the lake.
- **Commercial Marina**— Project lands and waters where boats can be launched, retrieved or moored, and where provisions for food services, convenience retailing such as petroleum sales, wet and dry storage of watercraft and other activities customarily associated with marinas, private recreation areas and yacht clubs take place.
- **Residential Marina**— 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: 1) Multi-family dwellings (e.g., apartments, townhouses, condominiums); 2) Long-term campgrounds (typically those that lease campsites for more than 14 consecutive days); and 3) Subdivision access lots that provide boating access for owners of any residential lots that don't have project frontage. No Commercial Marinas are allowed.
- **Residential**— Project lands and waters occupied by private facilities for project-front landowners, none of which can have multi-family dwellings. This classification may include, among other things, piers, boathouses, boatshelters, boat docks, floats, and boat ramps. No Commercial or Residential Marinas are allowed.
- **Business/Industrial**—Project lands and waters that are typically used by private businesses but which have little to no effect on boating. Examples include but are not limited to, business staging areas, shoreline associated with manufacturing operations, golf courses, law enforcement facilities, sand mining operations, etc.
- **Project Operations**—Project lands and waters associated with hydro power production including but not limited to- dams, dikes, powerhouses and other hydro plant properties.
- **Public Recreation**— Project lands and waters occupied by facilities supporting various public recreational amenities. Examples of the public recreation classification include Duke-owned Project Recreation Sites, and state, district, county and city parks that adjoin the Project Boundaries.

- **Public Infrastructure**—Project lands and waters occupied by public, non-recreational facilities supporting regional needs. This type of facility may include but is not limited to- overhead electric transmission line corridors; submarine utility line corridors (water, sewer, gasoline, natural gas, oil, phone, electric, etc.); regional power generation facilities; rights-of-way for public bridges, causeways, roads, water intakes, effluent discharges, etc.

In addition to the aforementioned classifications, future use classifications are designated for the most intensive (or highest) potential future use suitable for that segment of shoreline. These classifications include: Future Commercial Marina, Future Residential Marina, IMZ, Future Residential, and Future Public Recreation. Proposed facilities within these classifications must also comply with the SMGs (Appendix C). The hierarchy associated with the future use classifications must be understood to correctly interpret the SMP maps. For example, shoreline classified as "Future Commercial Marina" is likely suitable for all shoreline uses. However, shoreline classified as "Future Public Recreation" is likely only suitable for Business/Industrial, Project Operations, Public Recreation, or Public Infrastructure shoreline uses. Table 1 shows this suitability hierarchy.

In addition to the future use classifications, there are also two sub-classifications. The Natural classification includes a sub-classification "Natural Isolated Berm." Similarly, the IMZ classification has the sub-classification "IMZ Developed." The IMZ Developed classification includes lands and waters important from a scenic, environmental, or cultural standpoint, but the protection of these important values does not preclude Project or non-Project construction and use.

Table 1. Classification Matrix — Suitable Future Uses

Future Use Classifications (Symbol)	**Current Shoreline Use Classifications**							
	Commercial Marina	Residential Marina	IMZ	Residential	Business/ Industrial	Project Operations	Public Recreation	Public Infastructure
Future Commercial Marina (~~1~~)	●	●	●	●	●	●	●	●
Future Residential Marina (~~2~~ 2)		●	●	●	●	●	●	●
IMZ * ( )	●	●	●	●	●	●	●	●
Future Residential (~~3~~ 3)			●	●	●	●	●	●
Future Public Recreation (~~4~~ 4)					●	●	●	●

*Impact Minimization Zone (IMZ) is a combination of the SWFHS Classifications: Stable Sand and Gravel/ Cobble. The IMZ classification provides the means to track development in areas that should be avoided unless there is no practical alternative.

The shoreline of the Project reservoirs has been classified using the system described above. The SMP Maps were developed during Project relicensing and, other than as described below, are identical to the SMP Maps included in the Comprehensive Relicensing Agreement filed with the License Application in 2006. *(Note: These maps were developed using GIS and are not intended to be physical survey quality.)* However, the SMP Maps in Appendix A now incorporate Commission-approved shoreline reclassifications; corrections to mapping errors identified since the completion of the 2006 maps; additional areas reserved for future use as a Project recreation site; updated road and highway information; as well as adjacent reservoirs to more accurately depict actual Project conditions. (See 150 FERC ¶ 62,179 (2015); 150 FERC ¶ 62,046 (2015); 136 FERC ¶ 62,084 (2011); 126 FERC ¶ 62,121 (2009); 123 FERC ¶ 62,040 (2008); 118 FERC ¶ 62,072 (2007); 116 FERC ¶ 62,008 (2006); and 111 FERC ¶ 62,252 (2005); and 107 FERC ¶ 62,226 (2004). Table 2 summarizes the shoreline classification totals at the Project as shown on the SMP Maps (Appendix A).

Table 2. Shoreline Classification Totals

Shoreline Classification	Symbol	Lake James		Lake Rhodhiss		Lake Hickory		Lookout Shoals		Lake Norman		Mountain Island	
		Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent
Bottomland Hardwood		-	0.0%		0.0%	-	0.0%	0.7	2.3%	1.0	0.2%	0.3	0.3%
Business Industrial		0.1	0.1%	0.4	0.4%	0.9	0.8%	-	0.0%	4.3	0.8%	0.1	0.2%
Commercial Marina		1.8	1.2%	0.3	0.3%	1.5	1.3%	-	0.0%	6.7	1.2%	-	0.0%
Environmental		21.5	14.4%	26.1	27.2%	16.7	15.2%	7.9	24.0%	52.8	9.4%	35.6	37.7%
Future Commercial Marina		9.3	6.2%	12.3	12.9%	1.3	1.2%	2.1	6.2%	7.2	1.3%	-	0.0%
Future Public Recreation		30.9	20.7%	2.2	2.3%	2.9	2.6%	1.5	4.4%	25.4	4.5%	14.4	15.3%
Future Residential		40.1	26.9%	19.9	20.8%	16.8	15.3%	2.6	7.7%	58.2	10.3%	4.7	4.9%
Future Residential Marina		0.7	0.5%	1.0	1.1%	2.7	2.5%	0.3	0.8%	9.5	1.7%	3.1	3.3%
Impact Minimization Zones		8.6	5.8%	1.4	1.4%	1.7	1.6%	3.5	10.6%	10.0	1.8%	3.1	3.3%
IMZ Developed		0.7	0.5%	0.3	0.3%	0.5	0.5%	0.4	1.3%	3.1	0.5%	1.3	1.3%
Natural Areas		8.5	5.7%	26.7	27.9%	0.1	0.1%	3.5	10.5%	6.8	1.2%	4.4	4.6%
Natural Isolated Berm			0.0%	0.1	0.1%	0.0	0.0%	0.2	0.6%	2.1	0.4%	4.4	4.7%
Project Operations		2.2	1.5%	0.3	0.3%	1.7	1.6%	1.4	4.1%	3.7	0.7%	2.8	3.0%
Public Infrastructure		0.5	0.4%	2.4	2.5%	2.9	2.6%	0.4	1.2%	27.4	4.9%	9.0	9.5%
Public Recreation		1.1	0.7%	0.4	0.4%	0.7	0.7%	0.1	0.3%	2.2	0.4%	0.2	0.3%
Residential		17.0	11.4%	1.5	1.6%	57.0	51.9%	8.3	25.1%	319.9	56.9%	10.0	10.7%
Residential Marina		5.9	3.9%	0.5	0.5%	2.2	2.0%	0.3	1.1%	22.0	3.9%	0.9	1.0%
Grand Total		**148.9**	**100.0%**	**95.8**	**100.0%**	**109.6**	**100.0%**	**33.2**	**100.0%**	**562.3**	**100.0%**	**94.3**	**100.0%**

Shoreline Classification	Symbol	Lake Wylie		Fishing Creek Lake		Great Falls		Cedar Creek Reservoir		Lake Wateree		Project Total	
		Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent
Bottomland Hardwood		0.2	0.1%	6.1	6.7%	0.2	1.9%		0.0%	1.3	0.7%	9.9	1.1%
Business Industrial		3.2	0.9%	0.3	0.3%	0.1	0.8%	0.0	0.1%	0.0	0.0%	9.5	0.4%
Commercial Marina		7.0	2.0%	0.4	0.4%		0.0%		0.0%	1.7	0.9%	19.4	0.7%
Environmental		77.3	22.7%	35.8	39.6%	3.4	25.5%	3.8	17.1%	42.4	22.4%	323.1	23.2%
Future Commercial Marina		3.6	1.1%	15.9	17.6%		0.0%	3.3	14.6%	15.3	8.1%	70.2	6.3%
Future Public Recreation		9.8	2.9%	3.3	3.6%	2.5	18.6%	7.7	34.4%	8.7	4.6%	109.3	10.4%
Future Residential		31.2	9.2%	15.1	16.7%		0.0%	2.6	11.6%	11.8	6.2%	203.0	11.8%
Future Residential Marina		8.0	2.4%	1.2	1.3%		0.0%		0.0%	4.9	2.6%	31.5	1.5%
Impact Minimization Zones		9.0	2.6%	0.5	0.5%		0.0%	0.8	3.4%	7.7	4.1%	46.3	3.2%
IMZ Developed		1.2	0.3%	0.1	0.1%	0.3	2.2%	0.0	0.0%	0.5	0.2%	8.1	0.5%
Natural Areas		23.5	6.9%	3.0	3.3%	0.2	1.4%	1.6	7.3%	5.0	2.6%	83.4	6.4%
Natural Isolated Berm		0.5	0.2%	2.8	3.2%		0.0%		0.0%	1.5	0.8%	11.7	0.9%
Project Operations		1.3	0.4%	0.7	0.8%	6.5	49.2%	1.1	5.1%	1.2	0.7%	23.1	6.1%
Public Infrastructure		19.1	5.6%	1.3	1.4%	0.2	1.8%	1.0	4.6%	1.8	0.9%	66.0	3.2%
Public Recreation		3.2	0.9%	0.51	0.1%		0.0%	0.1	0.4%	0.5	0.3%	8.6	0.4%
Residential		138.3	40.6%	3.8	4.2%		0.0%	0.1	0.6%	84.4	44.6%	640.5	22.5%
Residential Marina		4.2	1.2%	0.0	0.0%		0.0%		0.0%	0.7	0.4%	36.7	1.3%
Grand Total		**340.6**	**100.0%**	**90.8**	**100.0%**	**13.4**	**100.0%**	**22.1**	**100.0%**	**189.4**	**100.0%**	**1700.3**	**100.0%**

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3.0 Shoreline Management Guidelines

Duke Energy has developed rules to balance development of shoreline facilities with electricity generation and natural resource needs. The approval process for facility development along Project reservoir shoreline (i.e., Project lands along the Normal Full Pond Elevation) requires compliance with detailed guidelines (Appendix C). The SMGs are substantively identical to those included with the Comprehensive Relicensing Agreement[1] and were developed after extensive consultation during relicensing, with the exception of revised definitions for facility maintenance and facility rebuild. These new definitions were filed with the Commission on August 26, 2014, and acknowledged by letter on December 15, 2014.

Duke Energy allows public and private access to Project shoreline lands, as long as such access is consistent with the overall objectives of the SMP. Adjacent property owners may, with the appropriate written approval, be considered for privileges such as:

- Engaging in lake use activities (e.g., private residential pier/docks and shoreline stabilization) provided they are the owner and/or lease holder of the tract of land immediately adjoining the Project Boundary
- Constructing and maintaining a floating pier/dock and access steps provided these structures are properly permitted and meet all specifications and requirements of the SMGs
- Removing vegetation in a manner that complies with the vegetation management requirements outlined in the SMGs
- Installing erosion control measures

3.1 Lake Use Permit Request Process

Under its FERC license, Duke Energy has the authority to permit limited development activities within the Project and to convey certain interests in Project lands and waters; however, Duke

[1] The SMGs have been updated to include the following changes: the names of North Carolina agencies have been revised to be consistent with current agency names; recreation facilities required by the License are consistently referred to as Project Recreation Sites consistent with the Project RMP; references to other Duke Energy projects have been removed.

Energy must provide for the protection of the scenic, recreational, cultural, and other environmental values of the Project. The process Duke Energy uses to authorize activities on Project reservoir shoreline lands is called the "Lake Use Permit Process."

Non-Project uses of shoreline and lands within the Project Boundary are not allowed without written authorization through one of the lake use permitting programs. Duke Energy will not authorize such uses without written agreement by the applicant acknowledging the applicant understands ownership and maintenance responsibilities and their limited authority with regard to controlling the actions of others within the Project Boundary. Duke Energy approval is documented by the issuance of either: (1) a permit for private residential facilities, shoreline stabilization and excavations; (2) a lease (or permit) for marina facilities; or (3) easements for water intakes, bridges, and other conveyances[2]. Duke Energy's lake use permits *do not* transfer fee title to any land.

The SMGs are a set of detailed procedures and criteria that define allowable uses such as vegetation management (e.g., tree removal), structure specifications (e.g., boat dock design), and shoreline stabilization and erosion practices (e.g., material restrictions). The SMGs set forth the rights and limitations as to use of Duke Energy's Project reservoir shoreline lands. These guidelines provide permitting criteria and procedures covering the following six permitting programs:

- Marina Facilities Program
- Conveyance Program
- Excavation Program
- Private Facilities Program
- Shoreline Stabilization Program
- Miscellaneous Reservoir Uses Program

The SMGs also encompasses general policies and vegetation management requirements.

[2] Duke Energy's issuance of a permit or lease grants approval to use and occupy lands within the Project Boundary. In some instances, other approvals (in addition to Duke Energy's) may also be required.

3.2 Monitoring and Enforcement

Duke Energy routinely monitors Project shoreline to ensure activities are in compliance with the SMP. Inspections are conducted after permitted facility construction is complete, and periodic inspections of the work in-progress will generally be conducted for larger projects. Use of or change in the features or vegetation on Project reservoir shoreline lands without specific authorization from Duke Energy is prohibited and considered an encroachment. Duke Energy will take lawful action to correct a violation if the following conditions are met.

- Use or occupancy violates the FERC license or conditions imposed by Duke Energy for the protection and enhancement of the Project's scenic, recreational, cultural, or other environmental values
- Use violates local, state, or federal regulations
- Covenant of a conveyance made under the authority of the standard land use license article is violated

Examples of violations include unauthorized construction, unauthorized removal of vegetation, and dumping of debris, including leaves and yard waste, within the Project Boundary. Lawful action includes, if necessary, canceling the permission to use and occupy the Project lands and waters, and requiring the removal of any non-complying structures and facilities. The SMG lists consequences for violations, including possible penalties.

3.3 True Public Marina Program

True Public Marinas provide recreational opportunities for the public with no predetermination of user groups for any of the existing or proposed land-based or water-based facilities. These facilities have no private facilities, no membership requirements, and the use of transient services (e.g., gas dock, restrooms, or pump-out facility) does not require wet or dry storage rental. Land-based and water-based services for transient users are provided at less than or equal to a reasonable and customary fee. The True Public Marina program is described in Appendix F.

Note: Existing marina facilities characteristically operated as True Public Marinas may also be classified as True Public Marinas even if they allow residential marina-type access on a very limited basis. These existing marinas may be afforded the same considerations provided to new True Public Marina facilities if the number of wet slips and dry storage bays dedicated for

Residential Marina-type access is less than or equal to 10 percent of the total number of wet slips and dry storage bays within the marina facility and any considerations are approved by Duke Energy. This exception only applies to the very limited number of existing marina facilities that meet the less-than-or equal-to-10-percent requirement as of January 1, 2006.

3.4 Shoreline Stabilization Technique Selection Process

Although adjoining property owners may want to implement shoreline stabilization to control soil erosion along Project shorelines, stabilization may not be necessary or allowed in certain areas. Duke Energy requires applicants desiring to stabilize shoreline or plant shoreline or aquatic vegetation to obtain written authorization prior to beginning such activities and construction. Duke Energy uses its SSTSP to evaluate shoreline stabilization requests.

Duke Energy developed the SSTSP as an alternative to establishing a set of engineering criteria in order to: (1) provide an easier means for an applicant to understand the process for shoreline stabilization requests, and (2) facilitate more consistent field implementation when permit applicants consider the need for shoreline stabilization. The SSTSP encourages applicants to consider first using bioengineering techniques or landscape plantings, and then if neither of these options is sufficient to control the erosion, applicants may consider the use of enhanced riprap, riprap or seawalls, and other hardening structures as a last resort. Duke Energy may, depending upon the characteristics of the site proposed for stabilization, require an engineering justification for the use of seawalls. Use of less-hardening stabilization techniques (e.g., bioengineering, landscape plantings, and riprap) may be required in lieu of seawalls. The SSTSP is included in Appendix G.

3.5 Excavation Programmatic Agreement

The Excavation Programmatic Agreement (PA) was developed by Duke Energy in 1998 after consultation with 49 agencies in North and South Carolina. The PA ensured Duke Energy's excavation permitting process complied with applicable Federal, State, and local regulations, and was in compliance with Project Licenses for activities not covered by the Standard Land Use Article. The PA established the criteria included in the SMP. The Excavation PA was implemented for the Catawba-Wateree Project starting on November 15, 1998.

In January 2016, Commission staff informed Duke Energy the Excavation PA referenced would need to be updated and approved under the New License. Duke Energy submitted an updated Excavation PA, and in February 2016, the Commission issued an Order Modifying and Approving the Excavation PA (154 FERC ¶ 62,087).

4.0 Shoreline Classification Examples

To ensure consistency throughout the Catawba-Wateree SMP Mapping modification/review process, a Classification Rules document (Appendix D) was developed to identify shoreline situations and the basis for classifying shoreline. These examples (or rules) were applied during the mapping process to ensure all areas were evaluated and classified consistently over the entire shoreline of the Project reservoirs. These Classification Examples were also used during the modification/review process for the SMP Maps in Appendix A.

5.0 Structure Renovation/Removal Program

Duke Energy developed its Process for Structure Renovation and Removal on Reservoirs managed by Duke Energy (i.e., Structure Renovation/Removal Program) in 1996 to ensure permitted structures are maintained in good repair and do not pose a hazard to public safety and navigation. The objectives of the program are to: (1) maintain and improve lake user safety by eliminating potential hazards from human-made structures; (2) manage Duke Energy costs for floating debris removal by ensuring structure owners take full responsibility for structure maintenance; and (3) ensure FERC license requirements are met.

The determination of the need for repair or removal is a judgment on the part of the Duke Energy representative(s) responsible for permitting at the lake. As a general rule, if the Duke Energy representative is unwilling or unable to walk on, within, or under a structure because of concerns for his or her safety and the safety of others, repair or removal will be required. The full program details are provided in Appendix E.

6.0 Procedure for Challenging SMP Mapping Accuracy

If a property owner or resource agency representative contacts Duke Energy with a question regarding the mapping accuracy of a particular area of shoreline, Duke Energy will review the appropriate (i.e., latest version developed and/or filed with FERC) SMP Maps and if necessary

make a site field inspection. If the property owner or resource agency representative disagrees with the shoreline classification indicated on the map for a particular site, Duke Energy makes a second site visit, if necessary, to determine if there is a mapping discrepancy. If Duke Energy believes there is no mapping discrepancy, the classification stands. If Duke Energy believes there is a potential mapping discrepancy, Duke Energy will coordinate with the resource agency(s) contact to visit the site. If the resource agency(s) does not agree a mapping discrepancy exists, the mapping classification stands. If the resource agency(s) confirms there is a mapping discrepancy, the property owner will have the opportunity to file for a shoreline classification change with the Commission or to wait until the next SMP map update takes place. *Note: Any reclassification of more than 100 feet of shoreline will be filed for FERC approval. The application must include documentation of agency consultation, justification for the reclassification, and a copy of the map from the existing SMP Maps showing the location of the proposed reclassification.*

7.0 Public Outreach and Education

Duke Energy provides information about shoreline management topics on its website. The website provides dynamic mapping of SMP information allowing users to spatially identify shoreline information and find locations by entering valid street addresses as well as downloading related documents. This website uses a map interface to provide aerial images and maps as well as address location services; this information is coupled with select portions of Duke Energy's GIS data to provide the public with access to comprehensive SMP data while delivering the information via a user-friendly interface. In addition, the website provides information on the procedures for issuance of a permit and approval, including a description of the application process and actual application forms for several of the lake use permitting programs.

8.0 SMP Review and Update Process

Duke Energy agreed, as part of the Comprehensive Relicensing Agreement, to annually convene a workgroup of interested stakeholders (SMP Workgroup) to discuss implementation of the SMP including the shoreline classifications (SMP Maps) and the SMGs. These meetings would establish methodology and parameters for the SMG effectiveness evaluation; allow for

discussion of opportunities and recommendations for periodic modifications to the SMP maps and SMGs; and be conducted in preparation for any needed ten year updates of the SMP.

As required by Article 409, Duke Energy will review the SMP every 10 years in consultation with U.S. Fish and Wildlife Service; the North Carolina Department of Environmental Quality; the North Carolina Wildlife Resources Commission; the South Carolina Department of Parks, Recreation, and Tourism; and the South Carolina Department of Natural Resources, as well as other interested stakeholders to determine whether the SMP needs revision. Based on the results of this consultation, Duke Energy will file a report to the Commission in 2025 to include an evaluation of the adequacy of the SMP, and to describe whether or not revisions to the SMP, SMP Maps, or the SMGs are needed. If changes are needed, an updated SMP will be filed with the evaluation report for Commission approval in 2025. The SMP update schedule is shown in Table 3.

Table 3. SMP Update Schedule

Date	Task
2016	1st SMP Workgroup meeting to review the 2016 update to the SMP, discuss implementation of the SMP (including shoreline classification maps and SMGs) and begin development of a methodology and parameters to evaluate SMP effectiveness and SMG permitting criteria for protecting near-shore and riparian habitats.
2017	2nd Workgroup meeting to determine methodology and parameters to evaluate SMP effectiveness and SMG permitting criteria for protecting near-shore and riparian habitats.
2018 – 2023	Annual SMP Workgroup Meetings to collaborate, discuss, recommend changes, and prepare for the ten-year updates to the SMP.
2024	Update SMP Maps to reflect changes since the previous map update and include input from annual workgroup meetings
2025	Submit updated SMP to FERC

When revising the SMP, Duke Energy will allow agencies and other stakeholders at least 30 days for review and comment prior to filing the SMP for Commission approval. The revised SMP will include copies of relevant agency and stakeholder consultation and indicate how or why agency and stakeholder recommendations were or were not incorporated into the revised SMP.

8.1 Provision for Changes without Commission approval

Duke Energy reserves the right to make minor alterations to the SMP without public notice, resource agency, or FERC review to ensure flexibility in the continuous monitoring and regulation of lake use permitting activities. These changes would affect no more than 100 feet of shoreline at one time, and typically result from misalignment between GIS layers used to generate maps or minor shifts in the more transient physical properties associated with some classifications (e.g. sand, silt, vegetation, etc.). For example, in a situation where 300 feet of shoreline classified as environmental adjoins 100 feet of shoreline classified as residential, Duke Energy could reduce one of the classifications by less than 100 feet without Commission approval. Additionally, consistent with the Comprehensive Relicensing Agreement negotiated as part of the relicensing of the Project, Duke Energy may also reclassify Bottomland Hardwood Areas to correct mapping errors. The ability to reclassify relatively small segments of shoreline allows for the correction of evident mapping errors and to reflect changes in shoreline characteristics. This also allows Duke Energy to revise the SMP maps to protect newly discovered resources such as archaeological or historic sites, Threatened or Endangered Species, Special Concern Species, or other areas of shoreline deemed necessary to protect.

8.2 Provision for Changes requiring Commission approval

Alterations involving the reclassification of more than 100 feet of shoreline or the complete reclassification of an entire classification segment will be filed for Commission approval.

8.3 Monitoring Shoreline Classification Changes and SMP Map Updates

Duke Energy uses a GIS database to develop the SMP maps. In addition to the shoreline classifications data layer included in the SMP maps, Duke Energy has created a separate data layer to track shoreline reclassifications and the justification for the reclassification. This creates a history of changes for shoreline segments along the Project shoreline, provides an explanation for why these changes occurred, and allows for comparison, tracking, and monitoring shoreline classification changes over time. The separate data layer with the reclassification history will be provided to the Commission upon request.

9.0 References

Duke Energy (Duke Energy Carolinas, LLC). 2014. Letter to FERC Refining Definitions of Facility Maintenance and Rebuild. August 26, 2014. Duke Energy Carolinas, LLC, Charlotte, NC.

Duke Energy (Duke Energy Carolinas, LLC). 2006. Comprehensive Relicensing Agreement for the Catawba-Wateree Project FERC No. 2232. August 29, 2006. Duke Energy Carolinas, LLC, Charlotte, NC.

Duke Energy (Duke Energy Carolinas, LLC). 2006. Geographic Information System (GIS) Mapping, Contour Elevation, and Project Boundary Mapping. Duke Energy Carolinas, LLC, Charlotte, NC.

Duke Energy (Duke Energy Carolinas, LLC). 2006. Shoreline Management Plan Resource Committee Report for the Catawba-Wateree Project FERC No. 2232. Duke Energy Carolinas, LLC, Charlotte, NC.

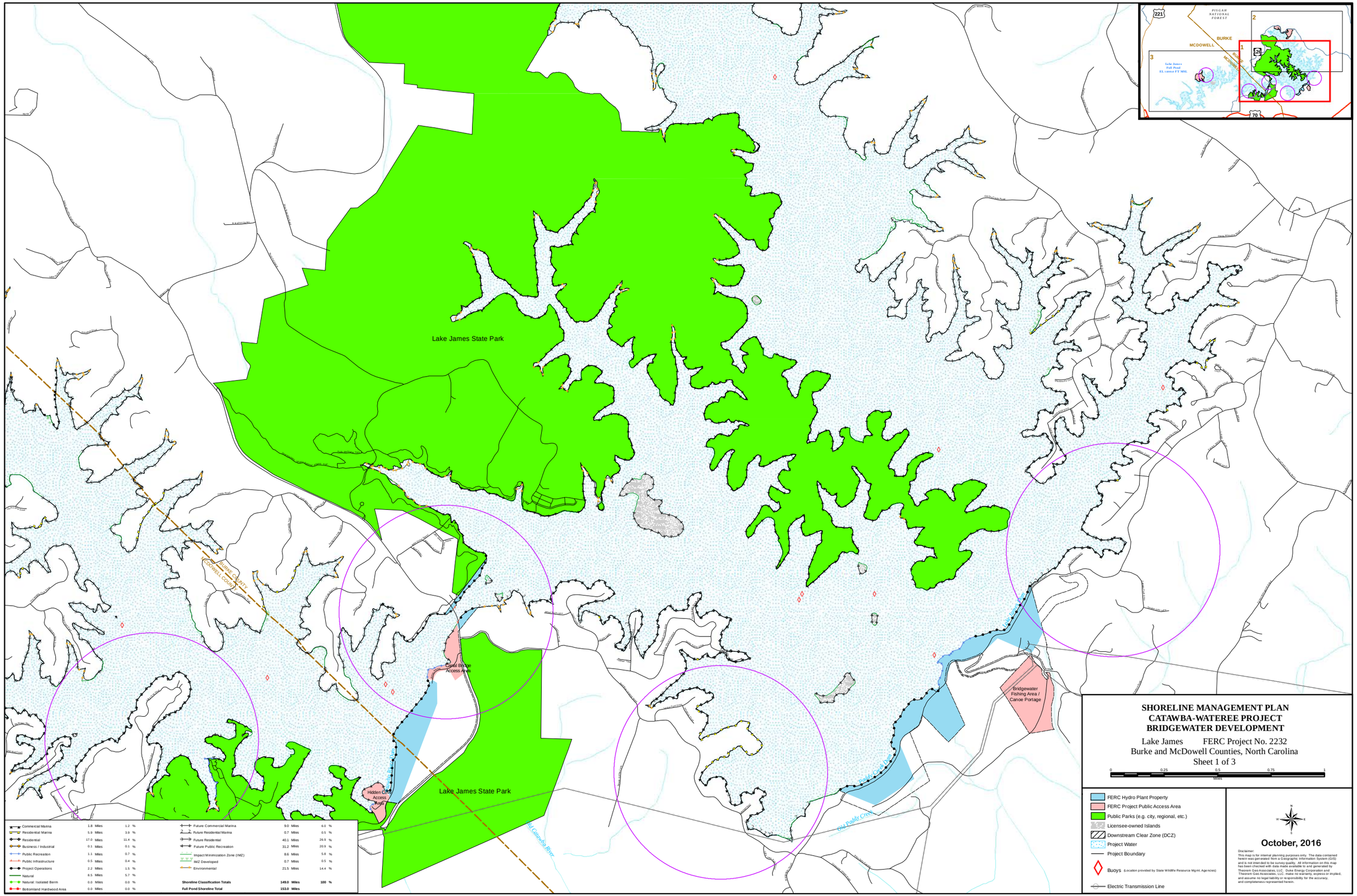
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FERC. 2015. United States of America 153 FERC ¶ 62,134. Federal Energy Regulatory Commission. Duke Energy Carolinas, LLC. Project No. 2232-522. Order Issuing New License. (Issued November 25, 2015).

Orbis, Inc. 2005. Digital Aerial Photography. Prepared for Duke Energy Carolinas, LLC, Charlotte, NC.

Appendix A – SMP Maps



Commercial Marina	1.8	Miles	1.2 %	Future Commercial Marina	9.0	Miles	6.0 %
Residential Marina	5.9	Miles	3.9 %	Future Residential Marina	0.7	Miles	0.5 %
Residential	17.0	Miles	11.4 %	Future Residential	40.1	Miles	26.9 %
Business / Industrial	0.1	Miles	0.1 %	Future Public Recreation	31.2	Miles	20.9 %
Public Recreation	1.1	Miles	0.7 %	Impact Minimization Zone (IMZ)	8.6	Miles	5.8 %
Public Infrastructure	0.5	Miles	0.4 %	IMZ Developed	0.7	Miles	0.5 %
Project Operations	2.2	Miles	1.5 %	Environmental	21.5	Miles	14.4 %
Natural	8.5	Miles	5.7 %				
Natural: Isolated Berm	0.0	Miles	0.0 %	**Shoreline Classification Totals**	**149.0**	**Miles**	**100 %**
Bottomland Hardwood Area	0.0	Miles	0.0 %	**Full Pond Shoreline Total**	**153.0**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
BRIDGEWATER DEVELOPMENT

Lake James FERC Project No. 2232
Burke and McDowell Counties, North Carolina
Sheet 1 of 3

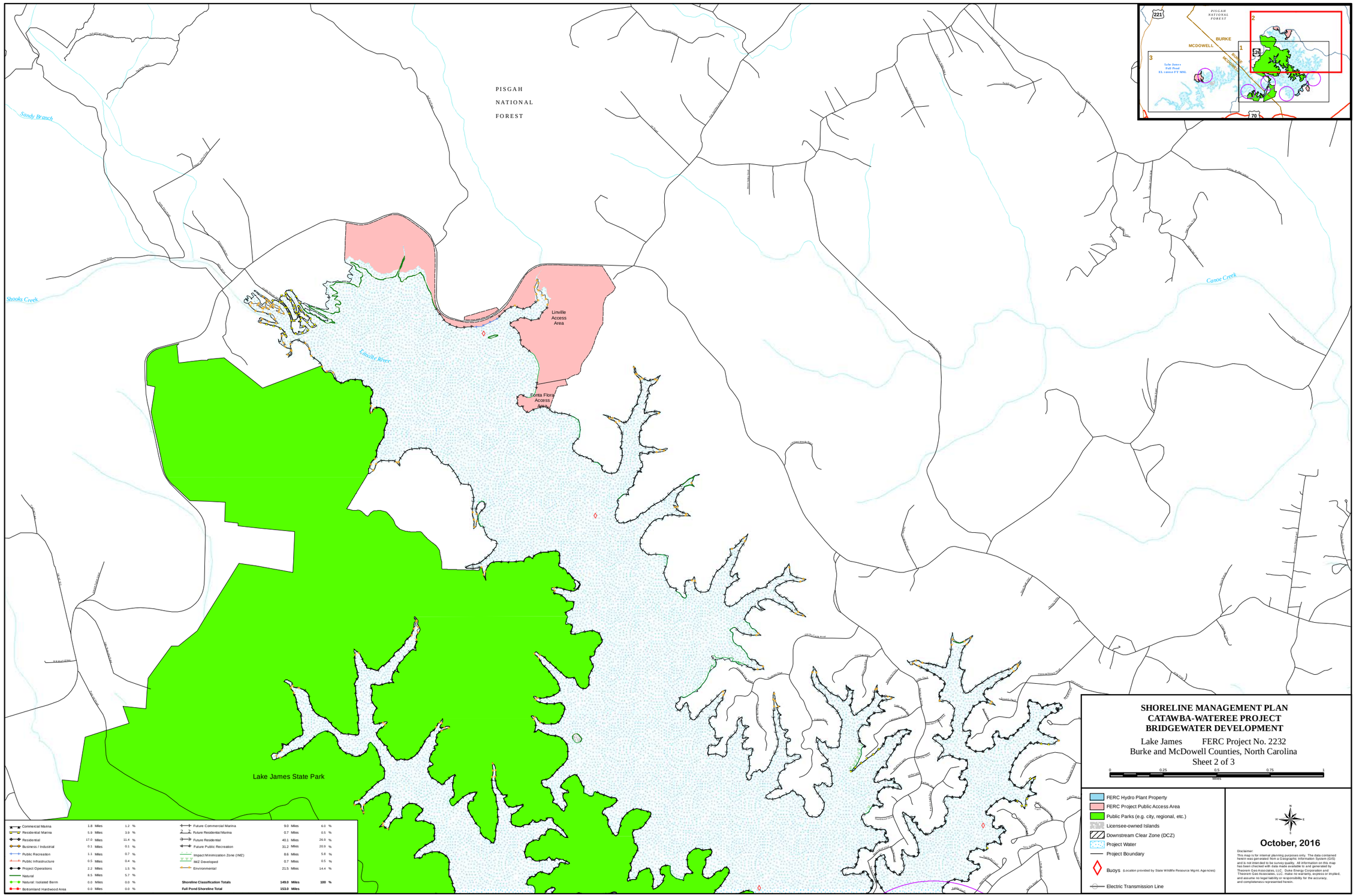
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- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

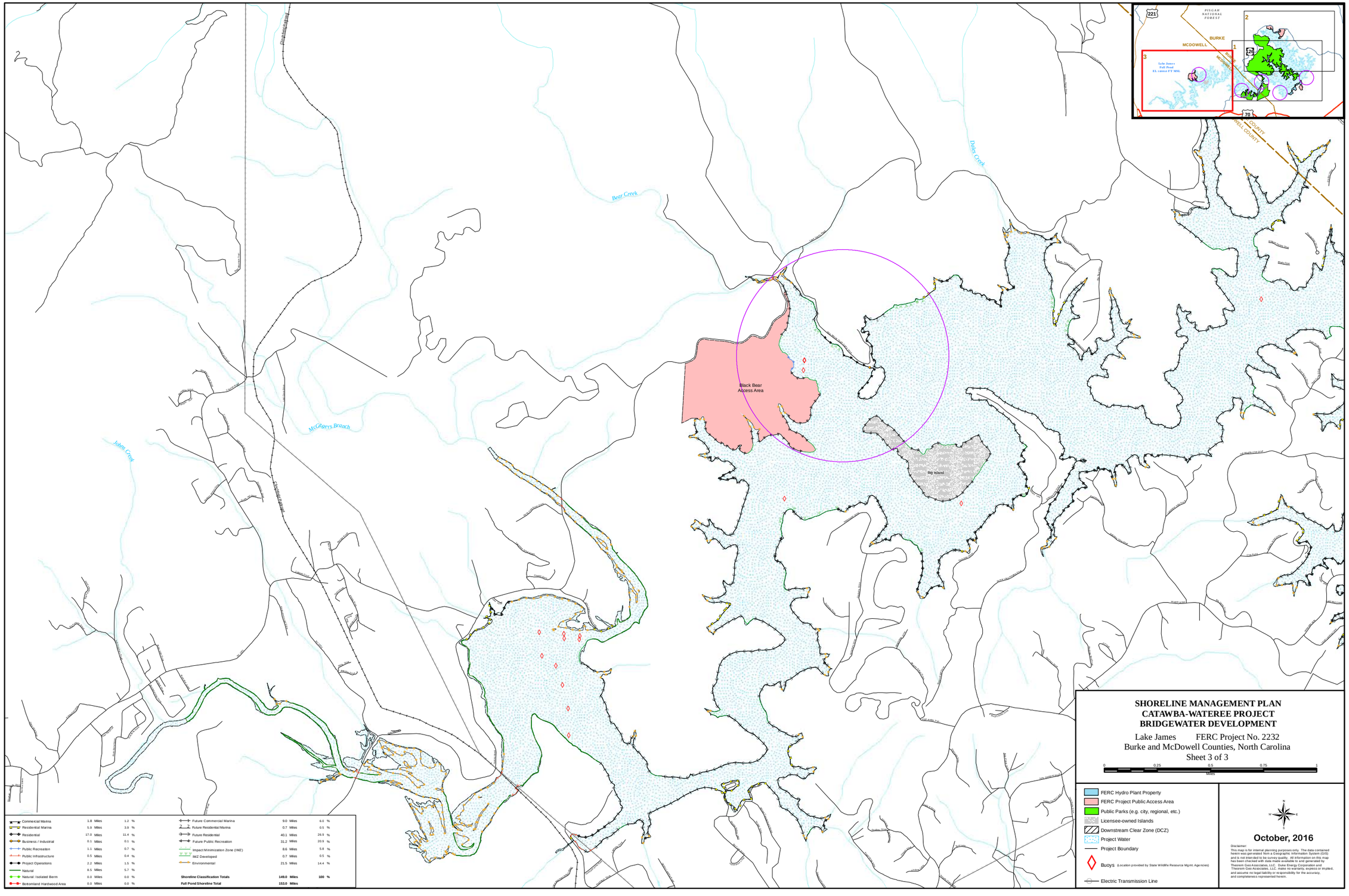
October, 2016

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Commercial Marina	1.8	Miles	1.2 %	Future Commercial Marina	9.0	Miles	6.0 %
Residential Marina	5.9	Miles	3.9 %	Future Residential Marina	0.7	Miles	0.5 %
Residential	17.0	Miles	11.4 %	Future Residential	40.1	Miles	26.9 %
Business / Industrial	0.1	Miles	0.1 %	Future Public Recreation	31.2	Miles	20.9 %
Public Recreation	1.1	Miles	0.7 %	Impact Minimization Zone (IMZ)	8.6	Miles	5.8 %
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SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
BRIDGEWATER DEVELOPMENT

Lake James FERC Project No. 2232
Burke and McDowell Counties, North Carolina
Sheet 3 of 3

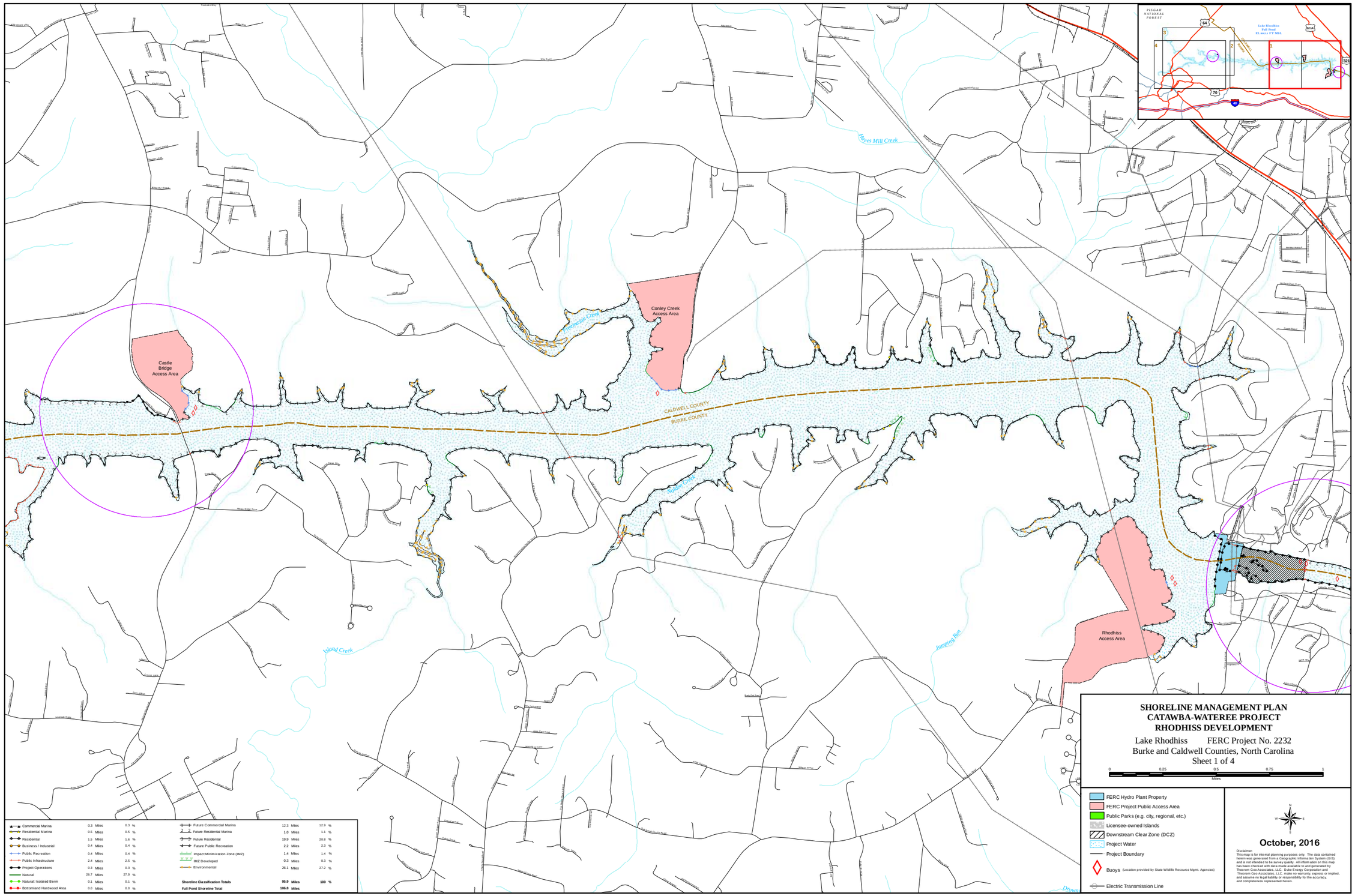
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- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
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- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
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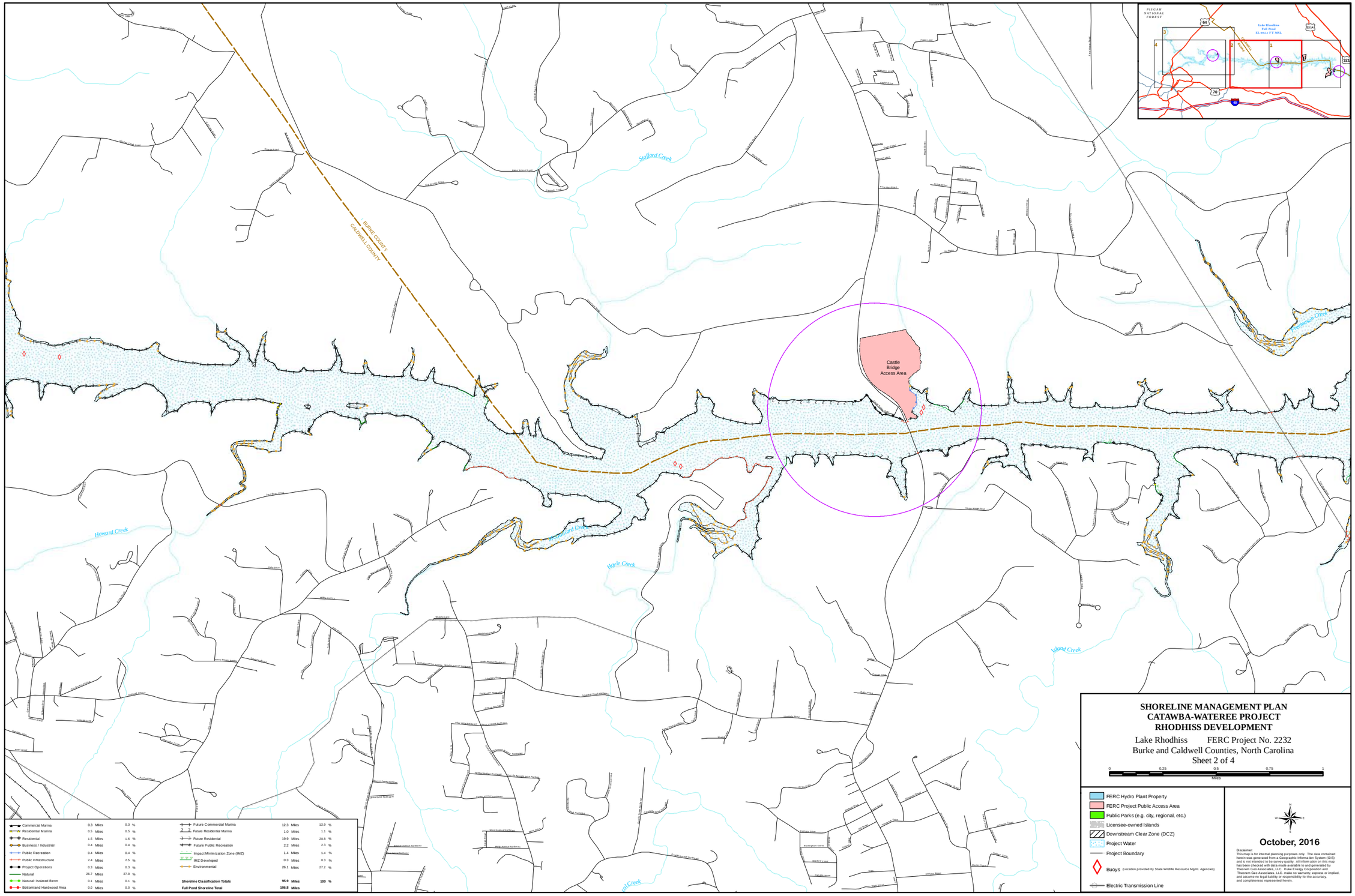
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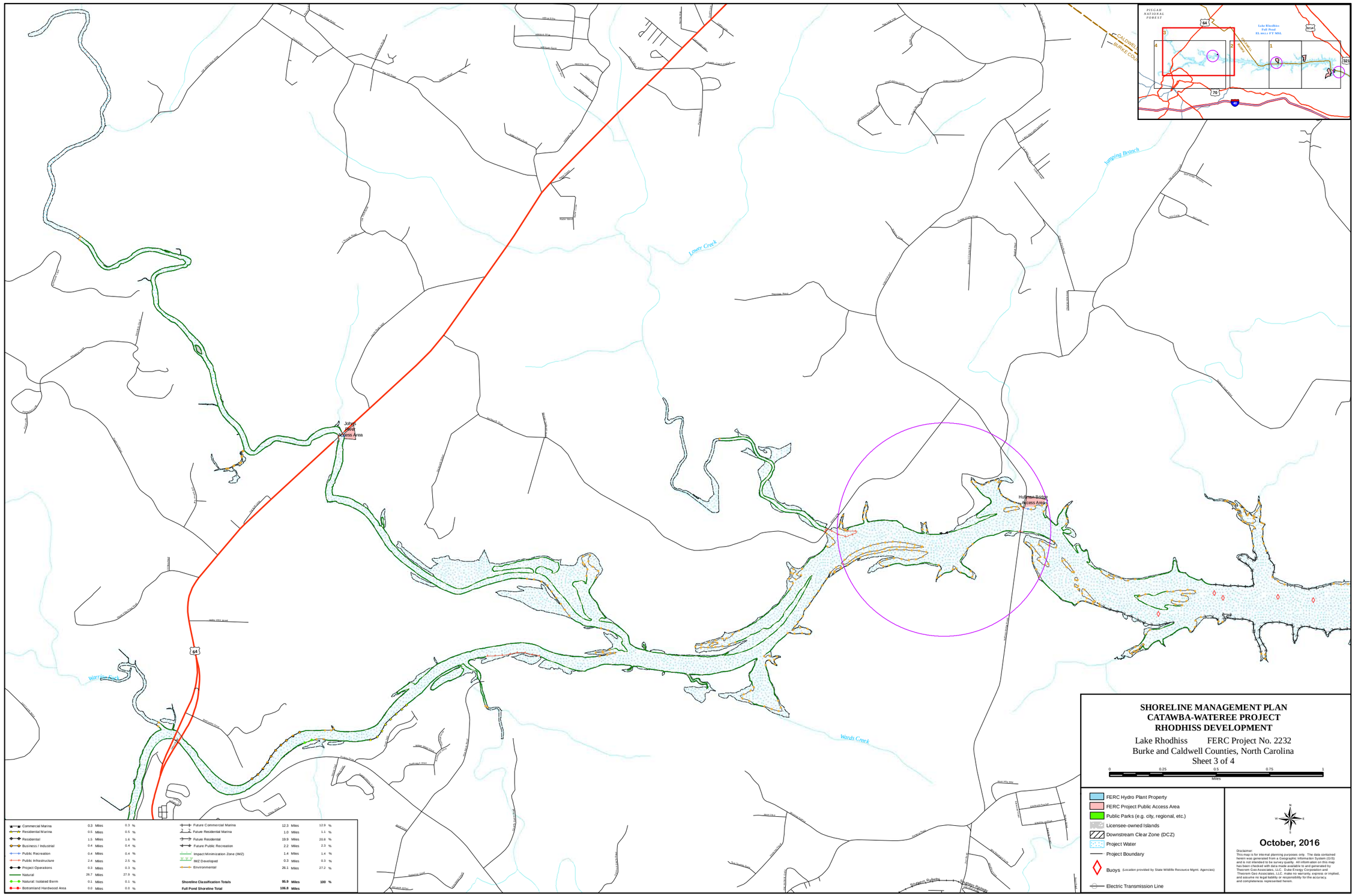
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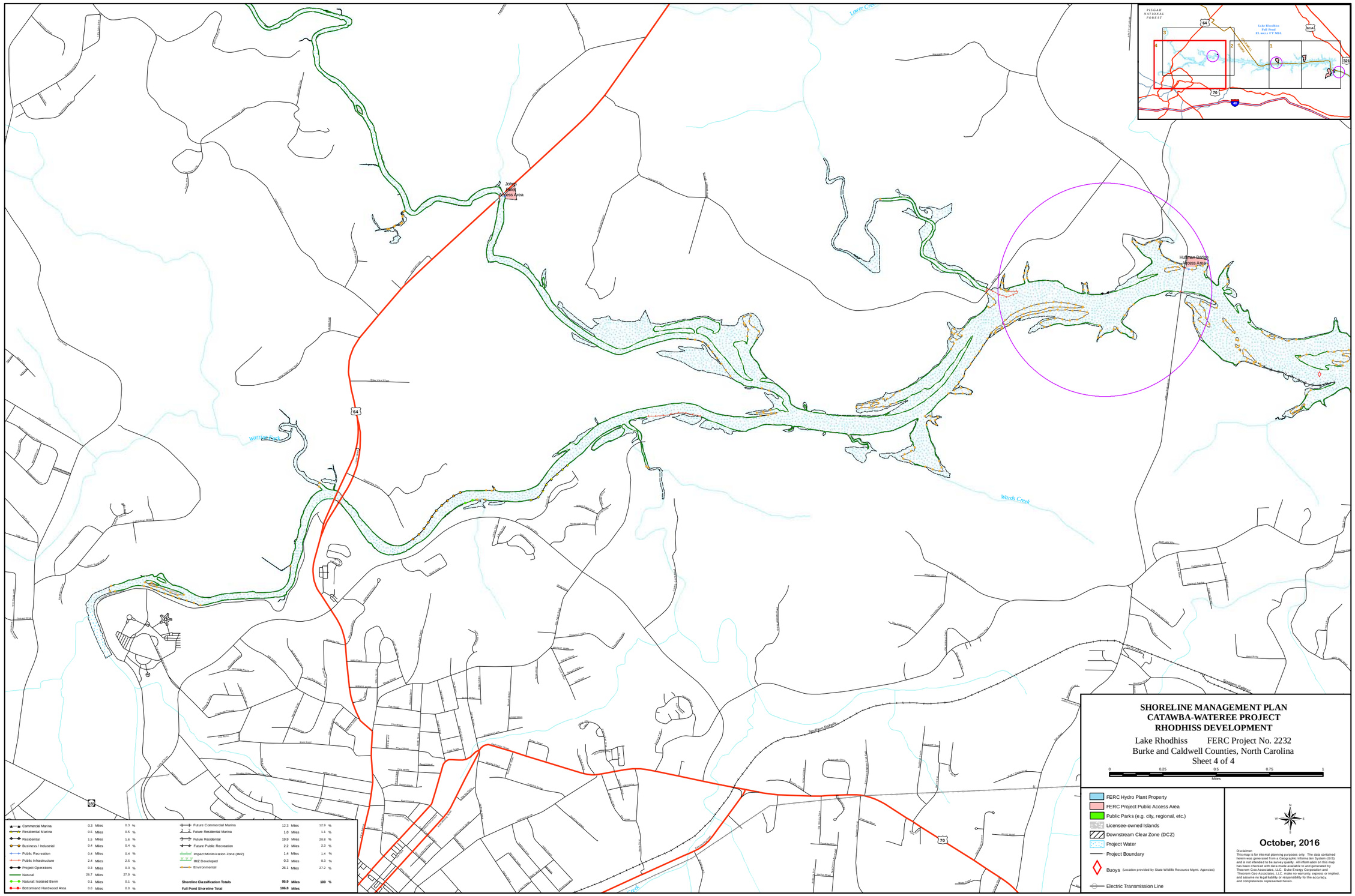
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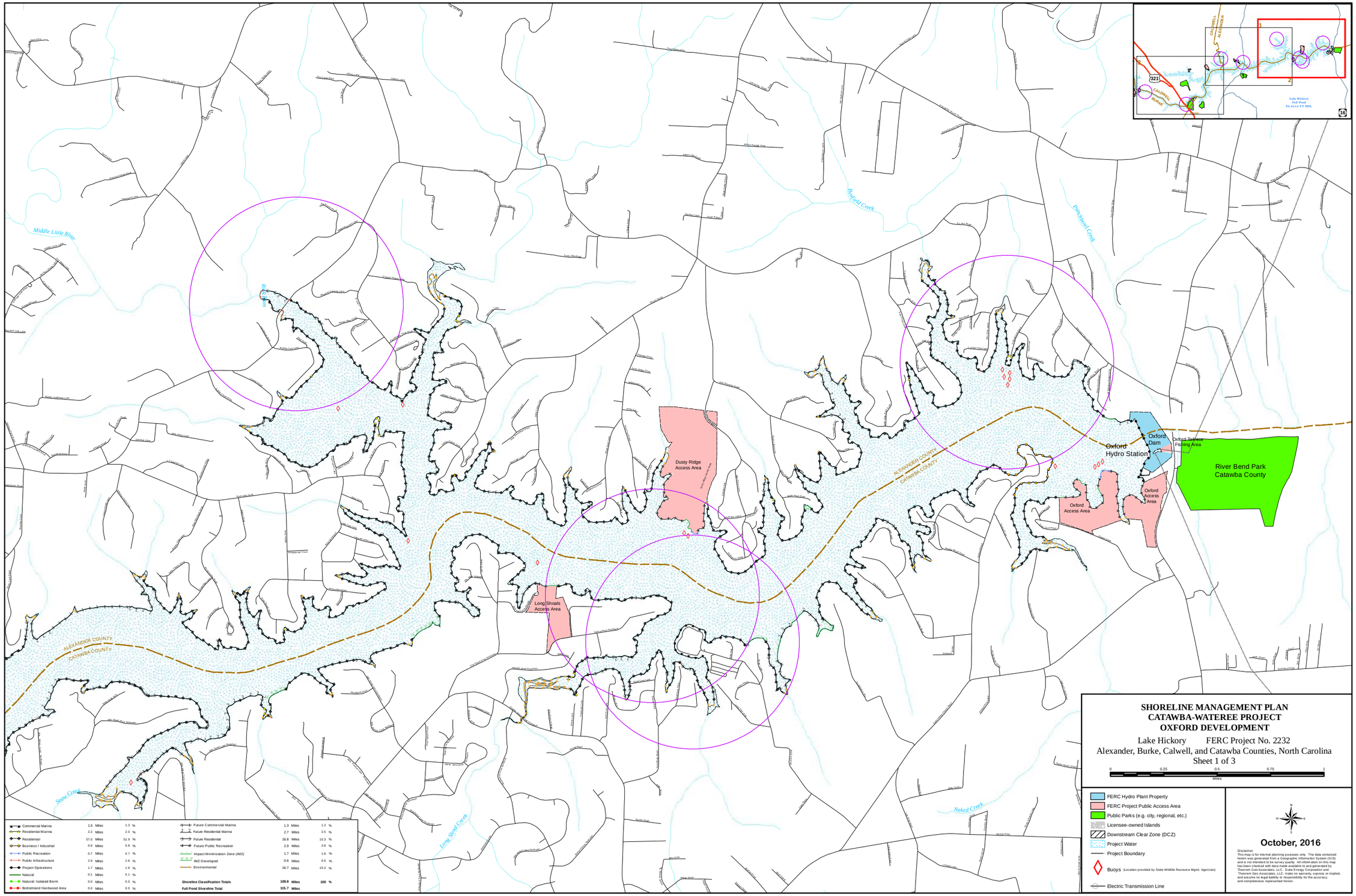
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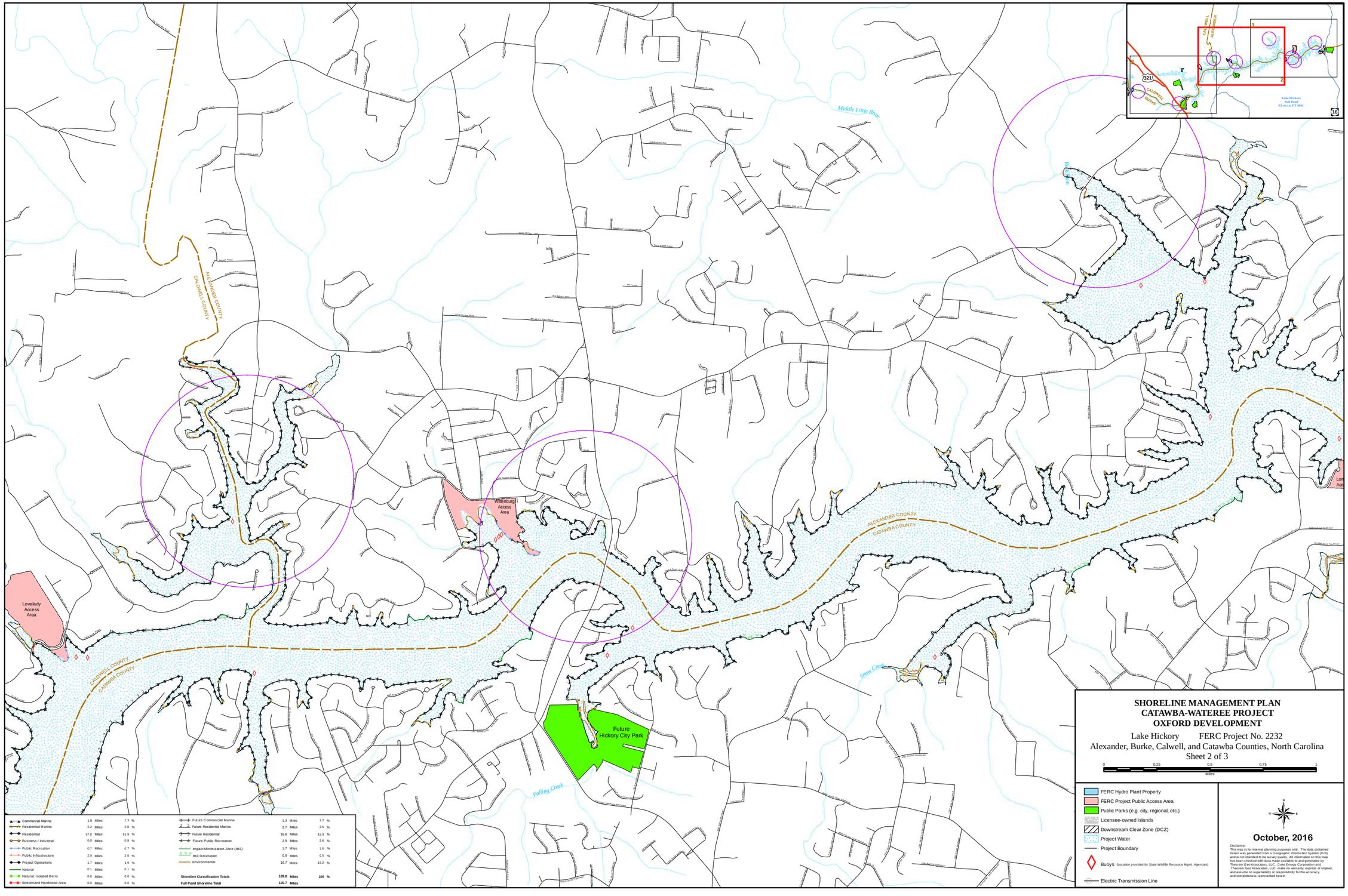
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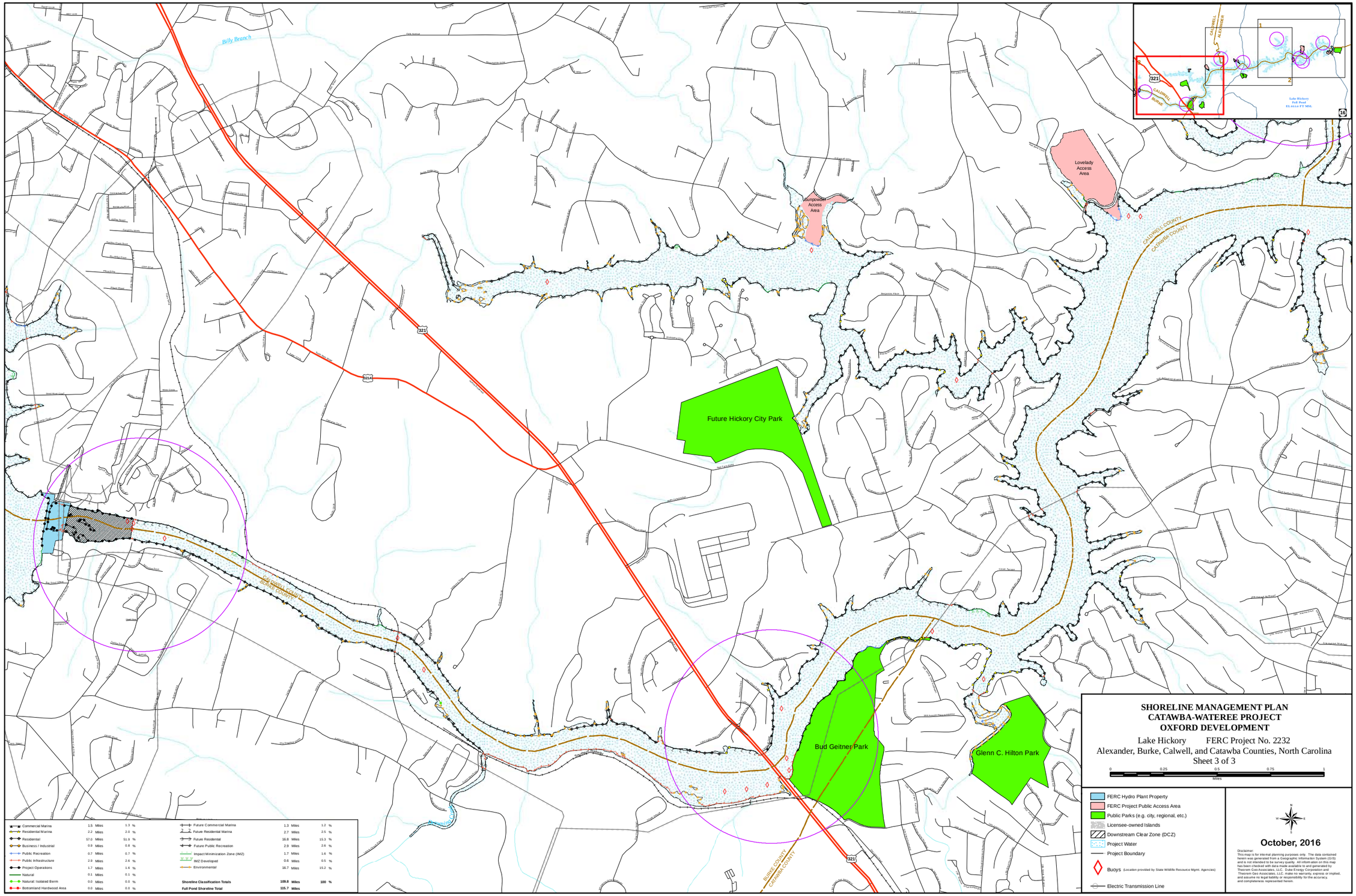
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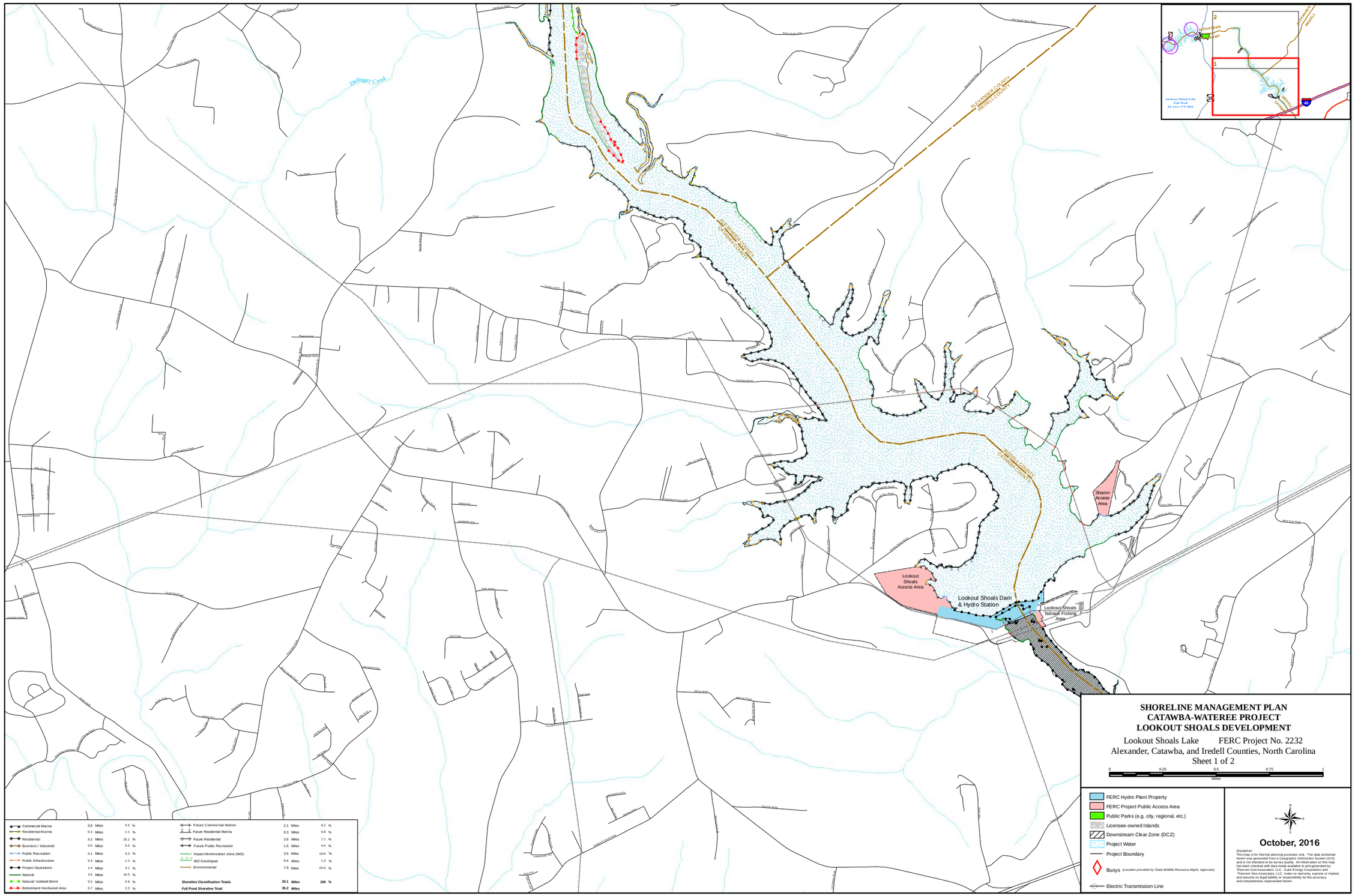
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Commercial Marina	0.0	Miles	0.0 %	Future Commercial Marina	2.1	Miles	6.2 %
Residential Marina	0.3	Miles	1.1 %	Future Residential Marina	0.3	Miles	0.8 %
Residential	8.3	Miles	25.1 %	Future Residential	2.6	Miles	7.7 %
Business / Industrial	0.0	Miles	0.0 %	Future Public Recreation	1.5	Miles	4.4 %
Public Recreation	0.1	Miles	0.3 %	Impact Minimization Zone (IMZ)	3.5	Miles	10.6 %
Public Infrastructure	0.4	Miles	1.2 %	IMZ Developed	0.4	Miles	1.3 %
Project Operations	1.4	Miles	4.1 %	Environmental	7.9	Miles	24.0 %
Natural	3.5	Miles	10.5 %				
Natural: Isolated Berm	0.2	Miles	0.6 %	**Shoreline Classification Totals**	**33.1**	**Miles**	**100 %**
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SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
LOOKOUT SHOALS DEVELOPMENT

Lookout Shoals Lake FERC Project No. 2232
Alexander, Catawba, and Iredell Counties, North Carolina
Sheet 1 of 2

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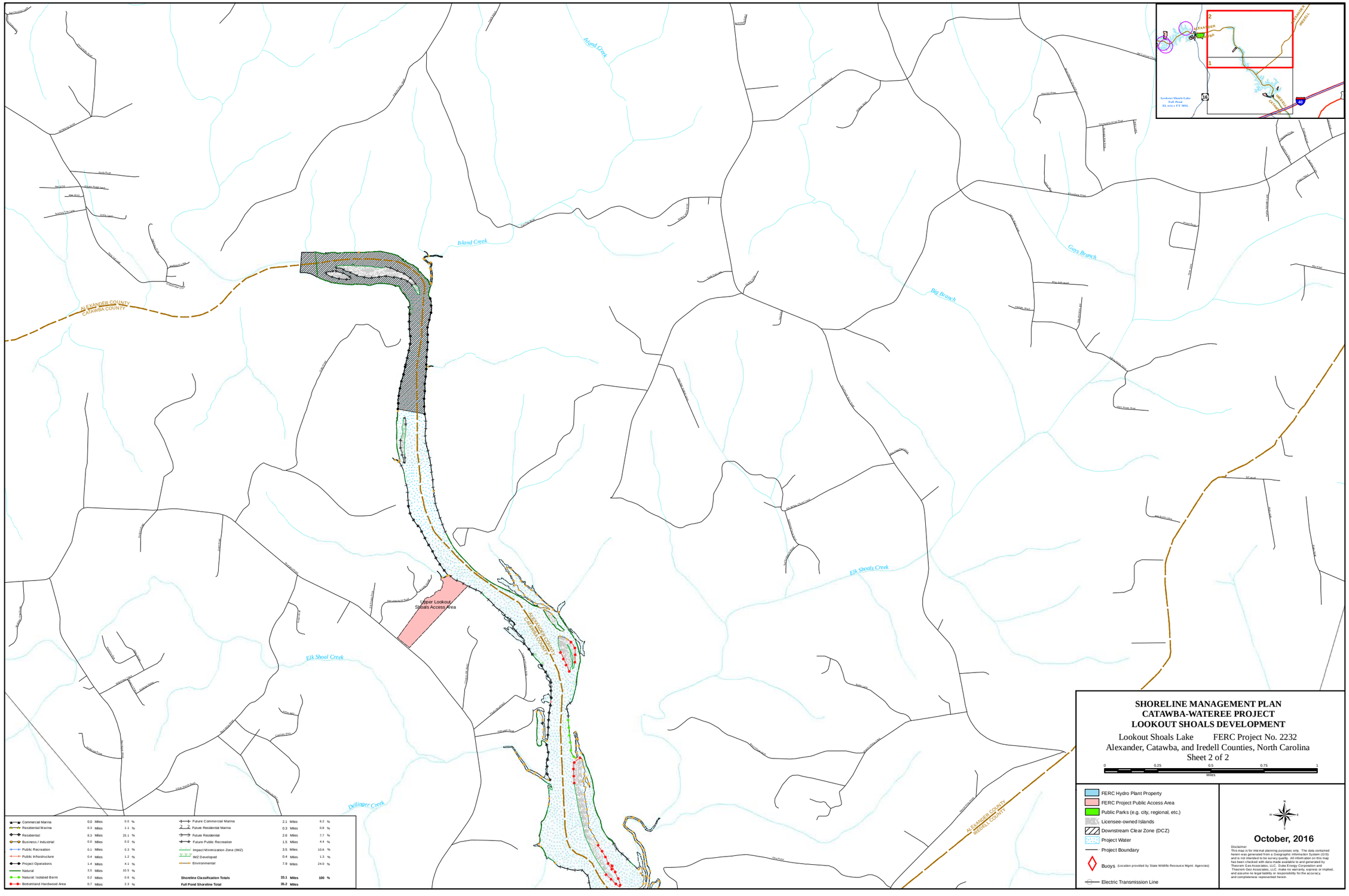
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- Electric Transmission Line

N W E S

October, 2016

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SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
LOOKOUT SHOALS DEVELOPMENT

Lookout Shoals Lake FERC Project No. 2232
Alexander, Catawba, and Iredell Counties, North Carolina
Sheet 2 of 2

0 0.25 0.5 0.75 1
Miles

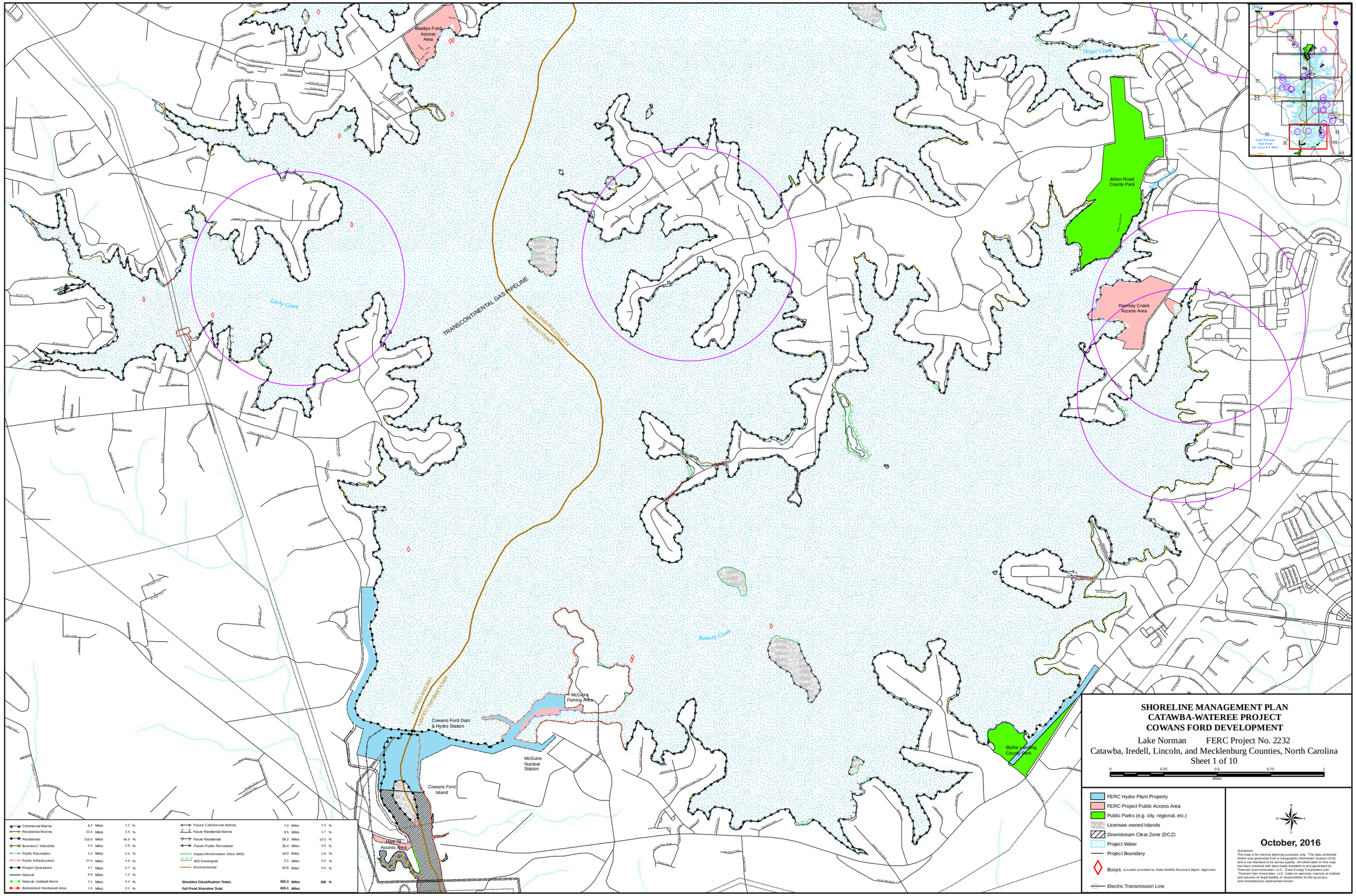
- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

N W E S

October, 2016

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Commercial Marina	6.7	Miles	1.2 %	Future Commercial Marina	7.2	Miles	1.3 %
Residential Marina	22.0	Miles	3.9 %	Future Residential Marina	9.5	Miles	1.7 %
Residential	319.9	Miles	56.9 %	Future Residential	58.2	Miles	10.3 %
Business / Industrial	4.3	Miles	0.8 %	Future Public Recreation	25.4	Miles	4.5 %
Public Recreation	2.2	Miles	0.4 %	Impact Minimization Zone (IMZ)	10.0	Miles	1.8 %
Public Infrastructure	27.4	Miles	4.9 %	IMZ Developed	3.1	Miles	0.5 %
Project Operations	3.7	Miles	0.7 %	Environmental	52.8	Miles	9.4 %
Natural	6.8	Miles	1.2 %				
Natural: Isolated Berm	2.1	Miles	0.4 %	**Shoreline Classification Totals**	**562.3**	**Miles**	**100 %**
Bottomland Hardwood Area	1.0	Miles	0.2 %	**Full Pond Shoreline Total**	**603.1**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
COWANS FORD DEVELOPMENT

Lake Norman FERC Project No. 2232

Catawba, Iredell, Lincoln, and Mecklenburg Counties, North Carolina

Sheet 1 of 10

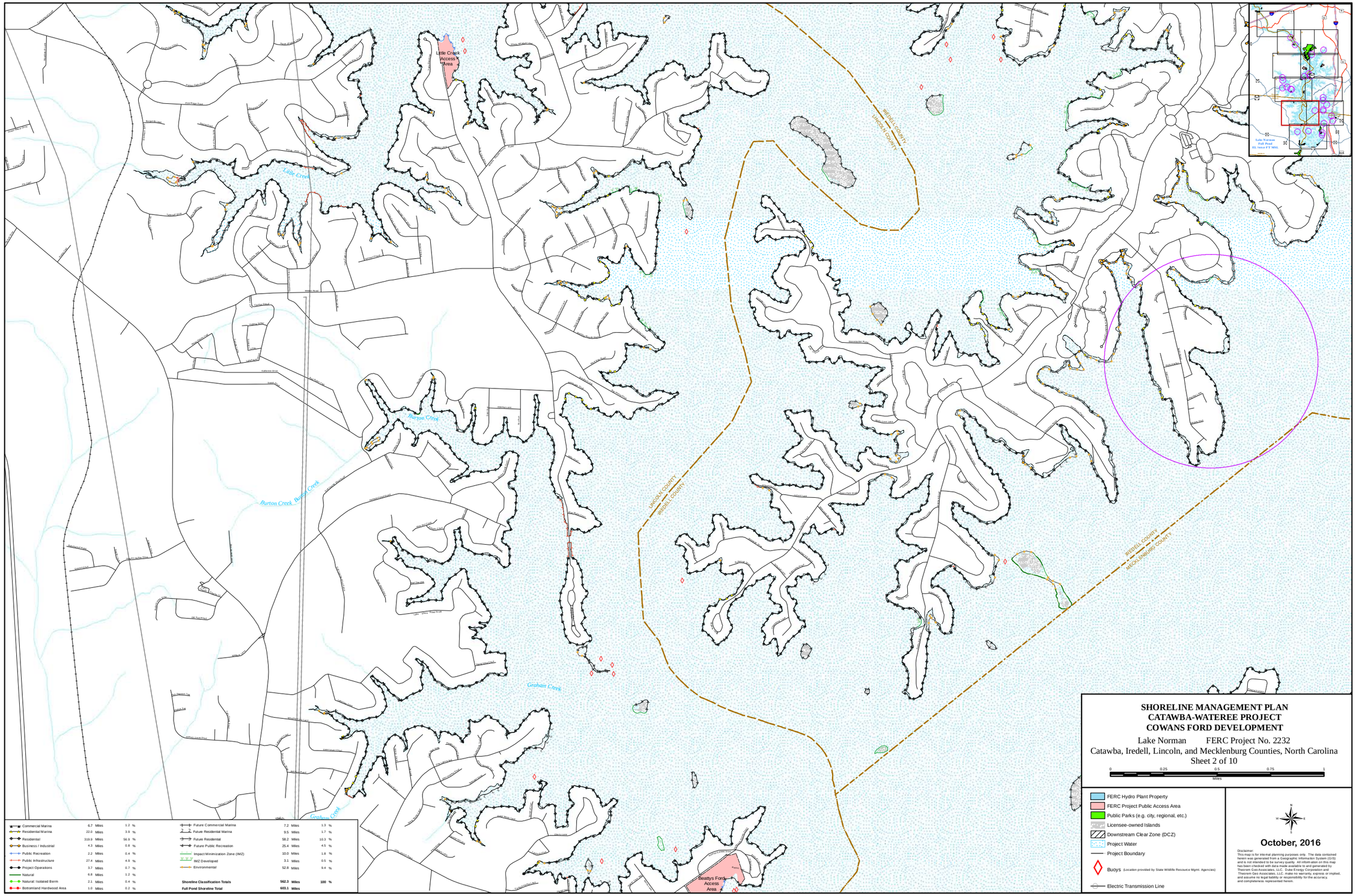
0 0.25 0.5 0.75 1 Miles

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
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October, 2016

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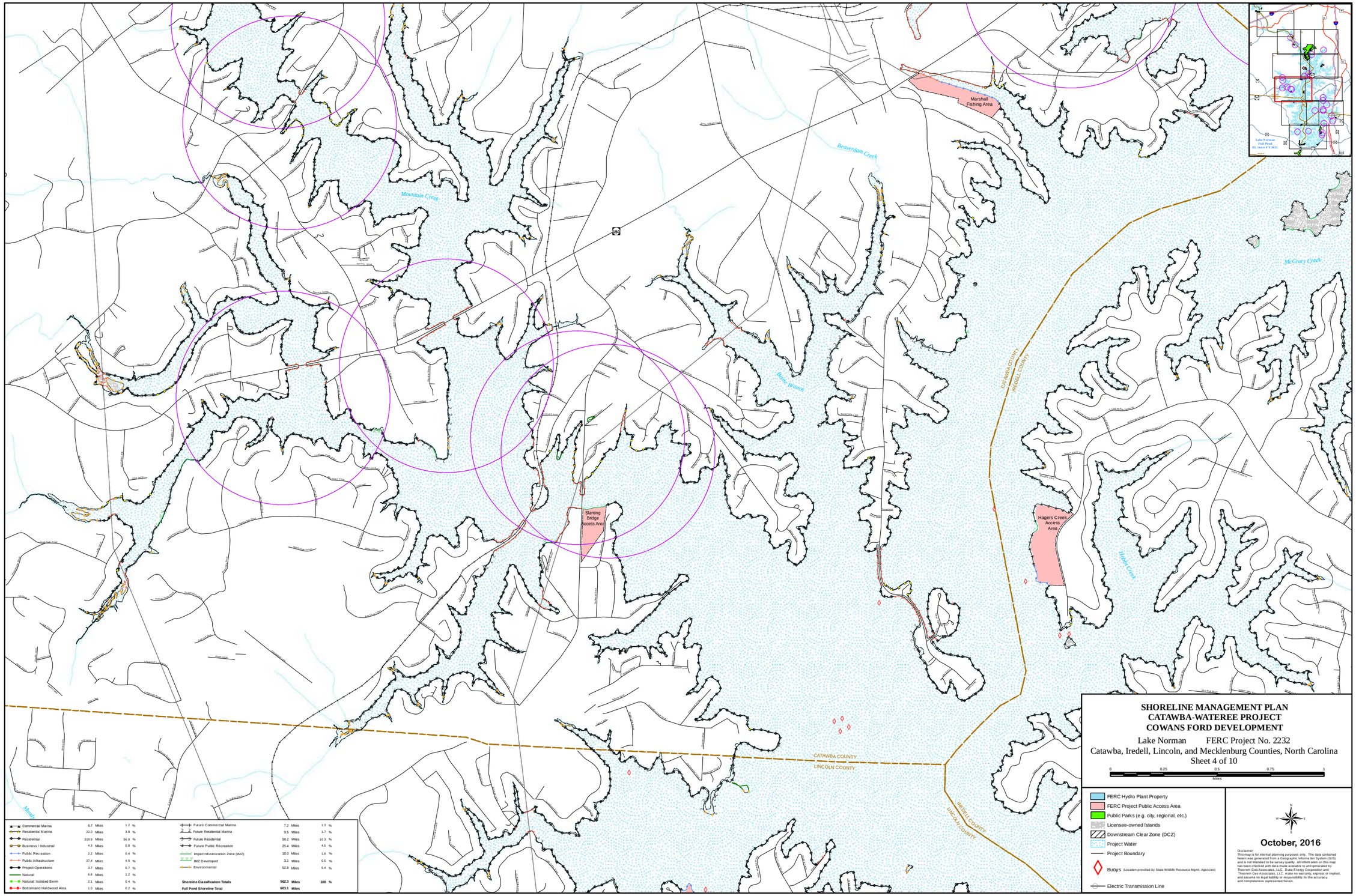


Commercial Marina	6.7	Miles	1.2 %	Future Commercial Marina	7.2	Miles	1.3 %
Residential Marina	22.0	Miles	3.9 %	Future Residential Marina	9.5	Miles	1.7 %
Residential	319.9	Miles	56.9 %	Future Residential	58.2	Miles	10.3 %
Business / Industrial	4.3	Miles	0.8 %	Future Public Recreation	25.4	Miles	4.5 %
Public Recreation	2.2	Miles	0.4 %	Impact Minimization Zone (IMZ)	10.0	Miles	1.8 %
Public Infrastructure	27.4	Miles	4.9 %	IMZ Developed	3.1	Miles	0.5 %
Project Operations	3.7	Miles	0.7 %	Environmental	52.8	Miles	9.4 %
Natural	6.8	Miles	1.2 %				
Natural: Isolated Berm	2.1	Miles	0.4 %	**Shoreline Classification Totals**	**562.3**	**Miles**	**100 %**
Bottomland Hardwood Area	1.0	Miles	0.2 %	**Full Pond Shoreline Total**	**603.1**	**Miles**	

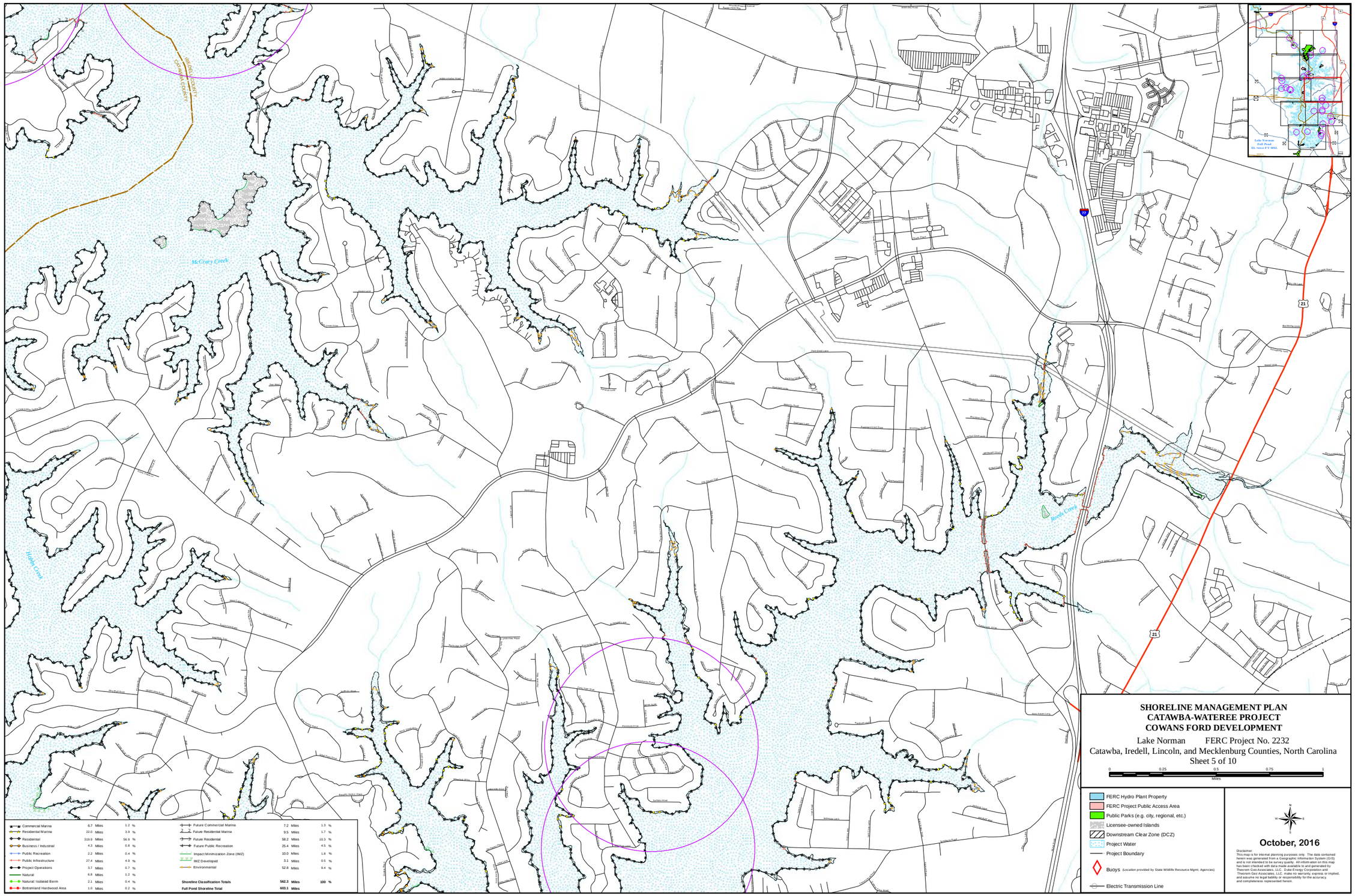
3:24-cv-01281-MGL Date Filed 10/01/25 Entry Number 82-2 Page 44 of 261

Commercial Marina	6.7	Miles	1.2 %	Future Commercial Marina	7.2	Miles	1.3 %
Residential Marina	22.0	Miles	3.9 %	Future Residential Marina	9.5	Miles	1.7 %
Residential	319.9	Miles	56.9 %	Future Residential	58.2	Miles	10.3 %
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Project Operations	3.7	Miles	0.7 %	Environmental	52.8	Miles	9.4 %
Natural	6.8	Miles	1.2 %				
Natural: Isolated Berm	2.1	Miles	0.4 %	**Shoreline Classification Totals**	**562.3**	**Miles**	**100 %**
Bottomland Hardwood Area	1.0	Miles	0.2 %	**Full Pond Shoreline Total**	**603.1**	**Miles**	

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3:24-cv-01281-MGL Date Filed 10/01/25 Entry Number 82-2 Page 46 of 261



Commercial Marina	6.7	Miles	1.2 %	Future Commercial Marina	7.2	Miles	1.3 %
Residential Marina	22.0	Miles	3.9 %	Future Residential Marina	9.5	Miles	1.7 %
Residential	319.9	Miles	56.9 %	Future Residential	58.2	Miles	10.3 %
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Public Recreation	2.2	Miles	0.4 %	Impact Minimization Zone (IMZ)	10.0	Miles	1.8 %
Public Infrastructure	27.4	Miles	4.9 %	IMZ Developed	3.1	Miles	0.5 %
Project Operations	3.7	Miles	0.7 %	Environmental	52.8	Miles	9.4 %
Natural	6.8	Miles	1.2 %				
Natural: Isolated Berm	2.1	Miles	0.4 %	**Shoreline Classification Totals**	**562.3**	**Miles**	**100 %**
Bottomland Hardwood Area	1.0	Miles	0.2 %	**Full Pond Shoreline Total**	**603.1**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
COWANS FORD DEVELOPMENT

Lake Norman FERC Project No. 2232

Catawba, Iredell, Lincoln, and Mecklenburg Counties, North Carolina

Sheet 5 of 10

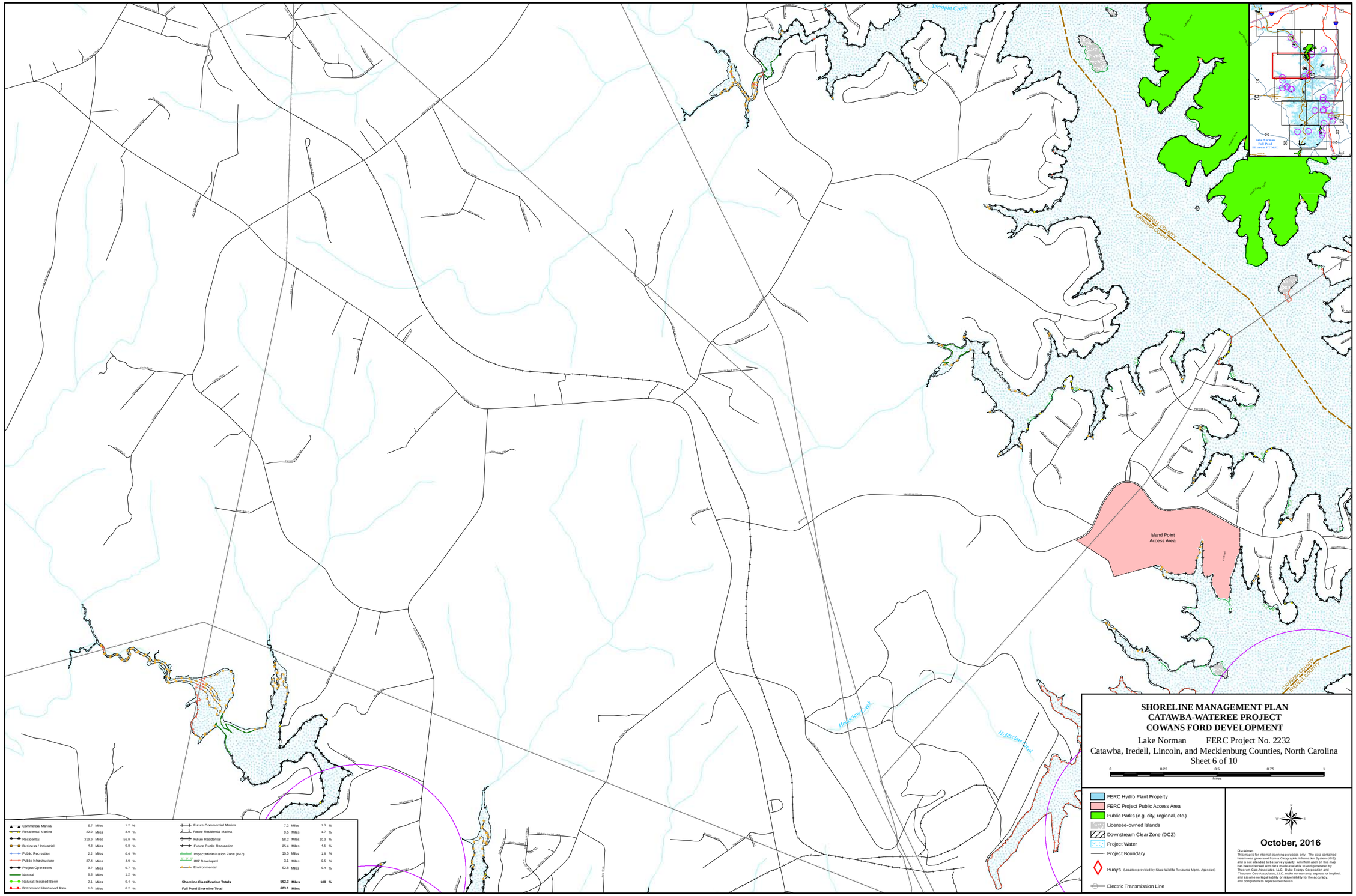
0 0.25 0.5 0.75 1 Miles

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

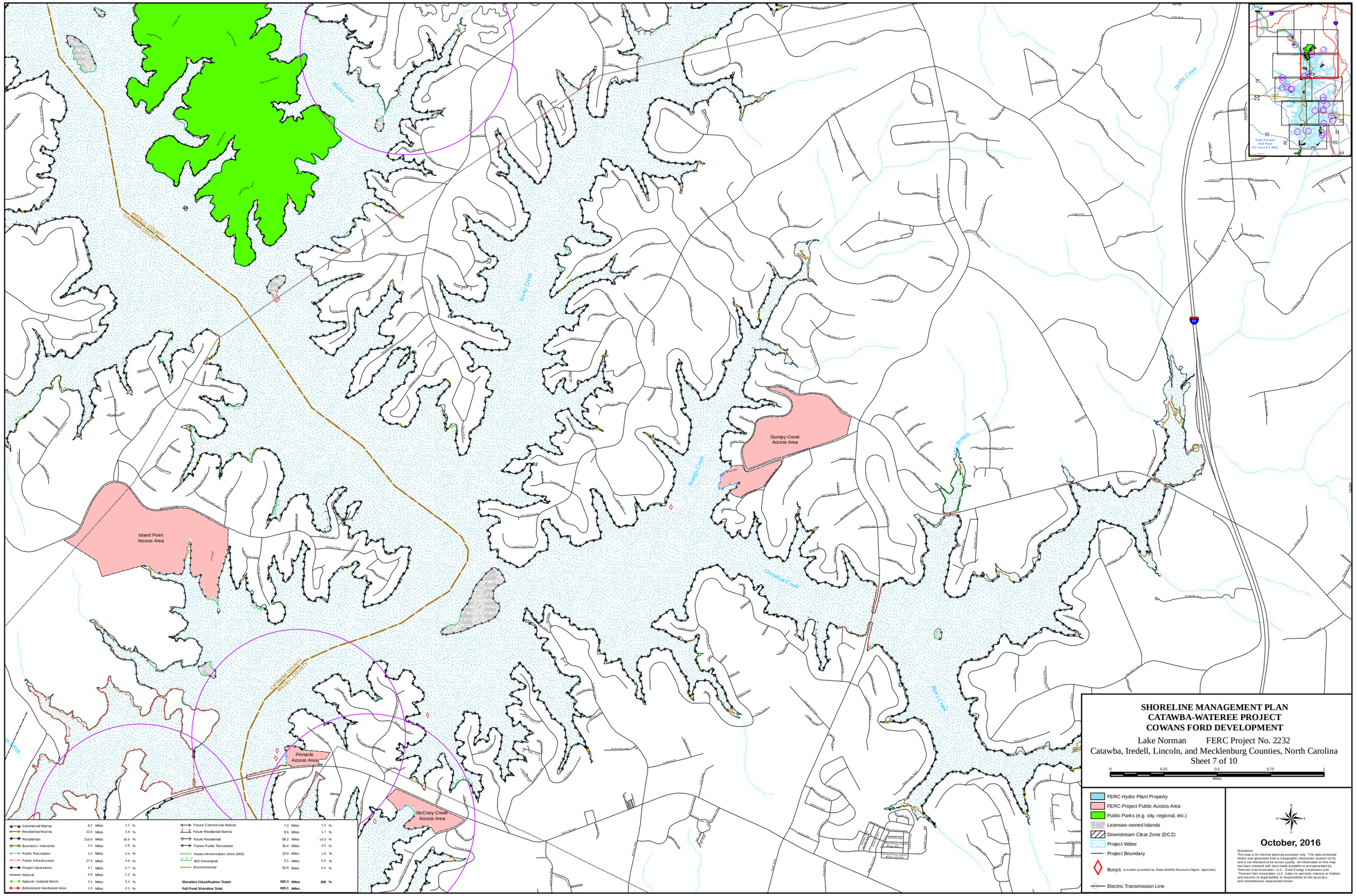
October, 2016

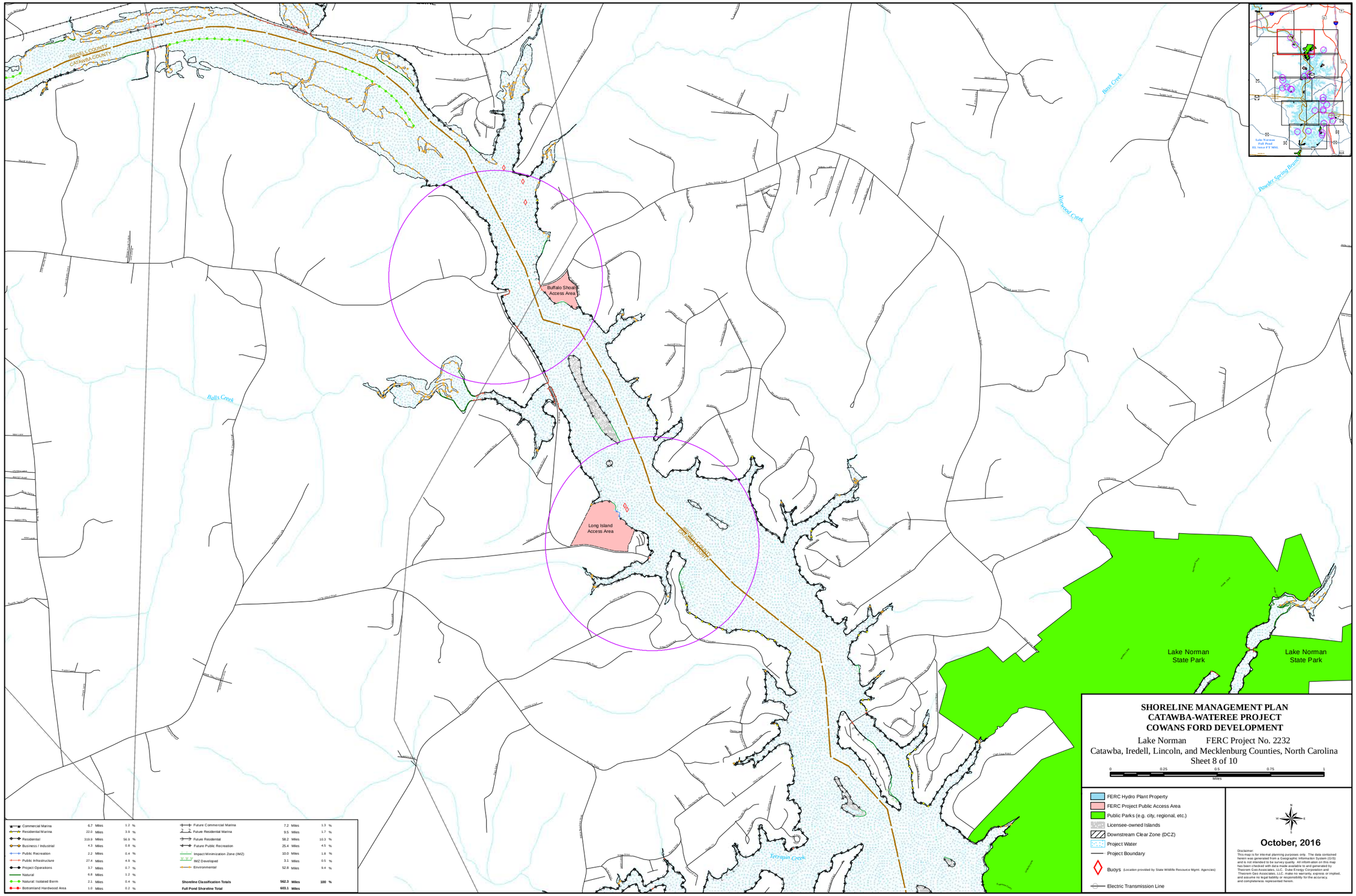
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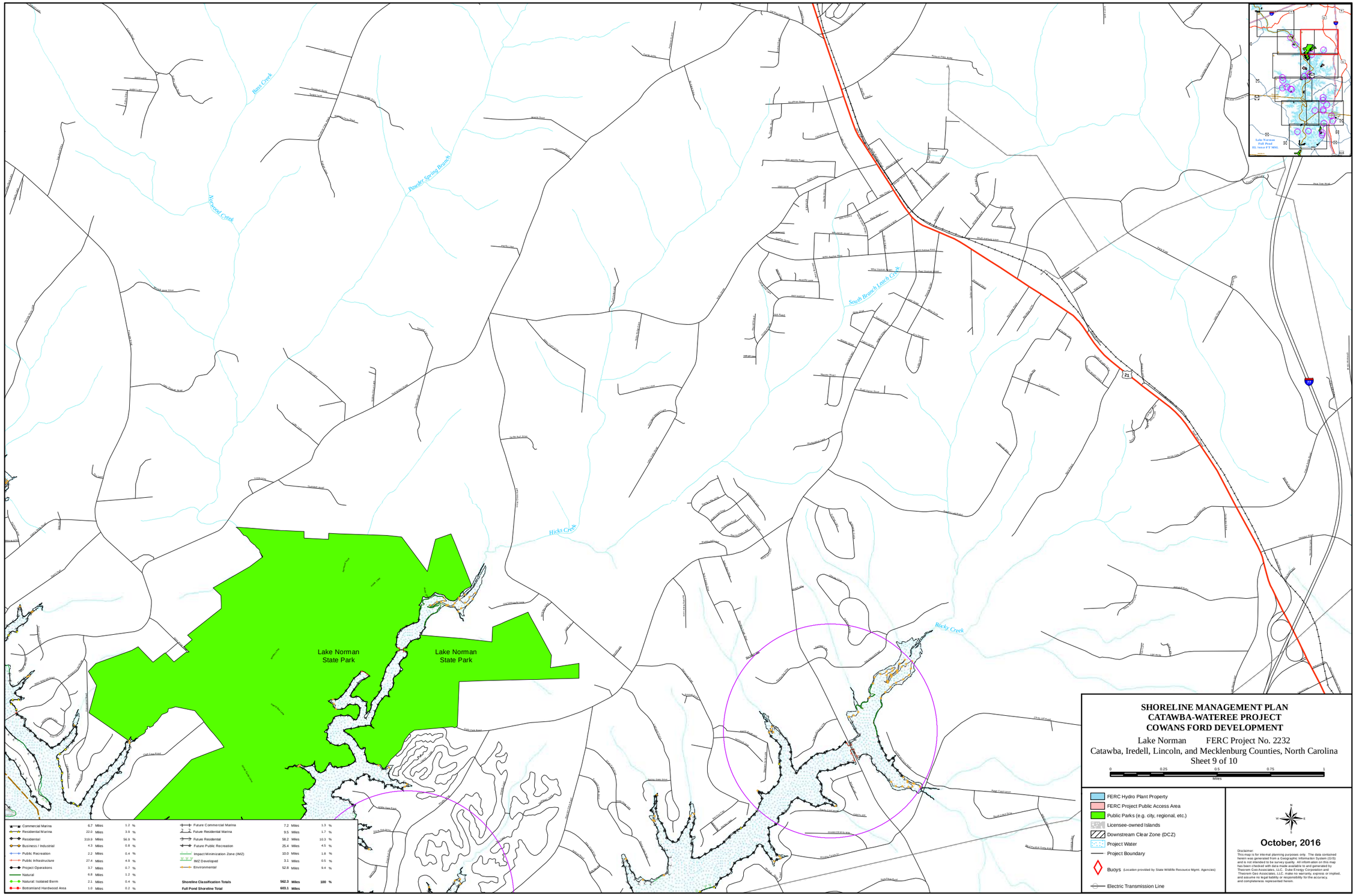


3:24-cv-01281-MGL Date Filed 10/01/25 Entry Number 82-2 Page 48 of 261


Rocky Creek
Iredell County
Catawba County
Island Point
Access Area
Stumpy Creek
Access Area
Pinnacle
Access Area
McCrary Creek
Access Area
Catawba County
Iredell County
Hoyle Creek
Stumpy Creek
Clarkes Creek
Rocky Creek
Rocky Creek
Clarkes Creek
Rocky Creek
Lake Norman
Full Pond
El. 760.0 FT MSL
Commercial Marina 6.7 Miles 1.2 %
Residential Marina 22.0 Miles 3.9 %
Residential 319.9 Miles 56.9 %
Business / Industrial 4.3 Miles 0.8 %
Public Recreation 2.2 Miles 0.4 %
Public Infrastructure 27.4 Miles 4.9 %
Project Operations 3.7 Miles 0.7 %
Natural 6.8 Miles 1.2 %
Natural: Isolated Berm 2.1 Miles 0.4 %
Bottomland Hardwood Area 1.0 Miles 0.2 %
Future Commercial Marina 7.2 Miles 1.3 %
Future Residential Marina 9.5 Miles 1.7 %
Future Residential 58.2 Miles 10.3 %
Future Public Recreation 25.4 Miles 4.5 %
Impact Minimization Zone (IMZ) 10.0 Miles 1.8 %
IMZ Developed 3.1 Miles 0.5 %
Environmental 52.8 Miles 9.4 %
Shoreline Classification Totals 562.3 Miles 100 %
Full Pond Shoreline Total 603.1 Miles
SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
COWANS FORD DEVELOPMENT
Lake Norman FERC Project No. 2232
Catawba, Iredell, Lincoln, and Mecklenburg Counties, North Carolina
Sheet 7 of 10
0 0.25 0.5 0.75 1
Miles
FERC Hydro Plant Property
FERC Project Public Access Area
Public Parks (e.g. city, regional, etc.)
Licensee-owned Islands
Downstream Clear Zone (DCZ)
Project Water
Project Boundary
Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
Electric Transmission Line
October, 2016
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Commercial Marina	6.7	Miles	1.2	%	
Residential Marina	22.0	Miles	3.9	%	
Residential	319.9	Miles	56.9	%	
Business / Industrial	4.3	Miles	0.8	%	
Public Recreation	2.2	Miles	0.4	%	
Public Infrastructure	27.4	Miles	4.9	%	
Project Operations	3.7	Miles	0.7	%	
Natural	6.8	Miles	1.2	%	
Natural: Isolated Berm	2.1	Miles	0.4	%	
Bottomland Hardwood Area	1.0	Miles	0.2	%	
Future Commercial Marina	7.2	Miles	1.3	%	
Future Residential Marina	9.5	Miles	1.7	%	
Future Residential	58.2	Miles	10.3	%	
Future Public Recreation	25.4	Miles	4.5	%	
Impact Minimization Zone (IMZ)	10.0	Miles	1.8	%	
IMZ Developed	3.1	Miles	0.5	%	
Environmental	52.8	Miles	9.4	%	
Shoreline Classification Totals	**562.3**	**Miles**	**100**	**%**	
Full Pond Shoreline Total	**603.1**	**Miles**			

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
COWANS FORD DEVELOPMENT

Lake Norman FERC Project No. 2232
Catawba, Iredell, Lincoln, and Mecklenburg Counties, North Carolina
Sheet 9 of 10

0 0.25 0.5 0.75 1
Miles

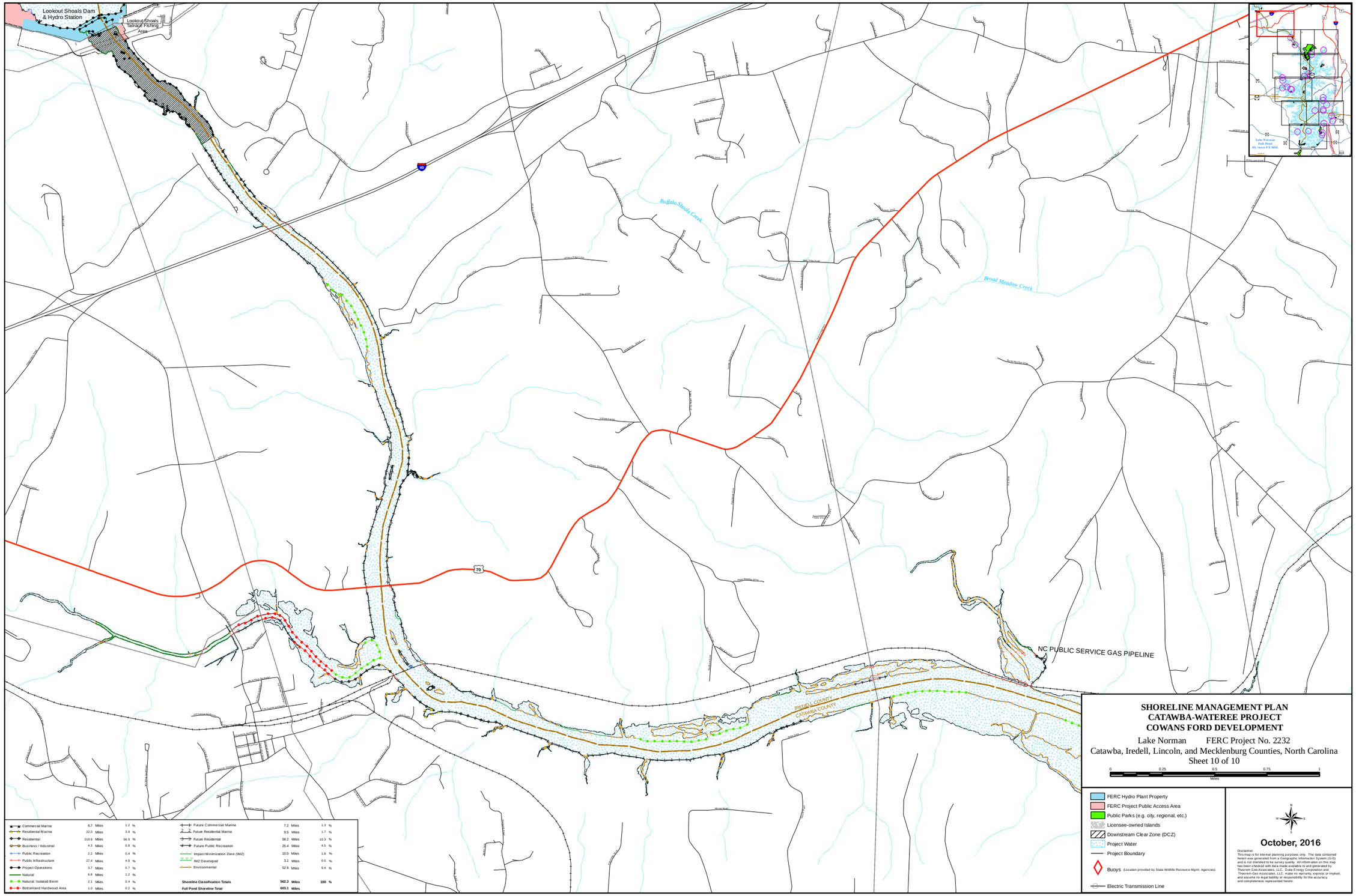
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- Project Boundary
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- Electric Transmission Line

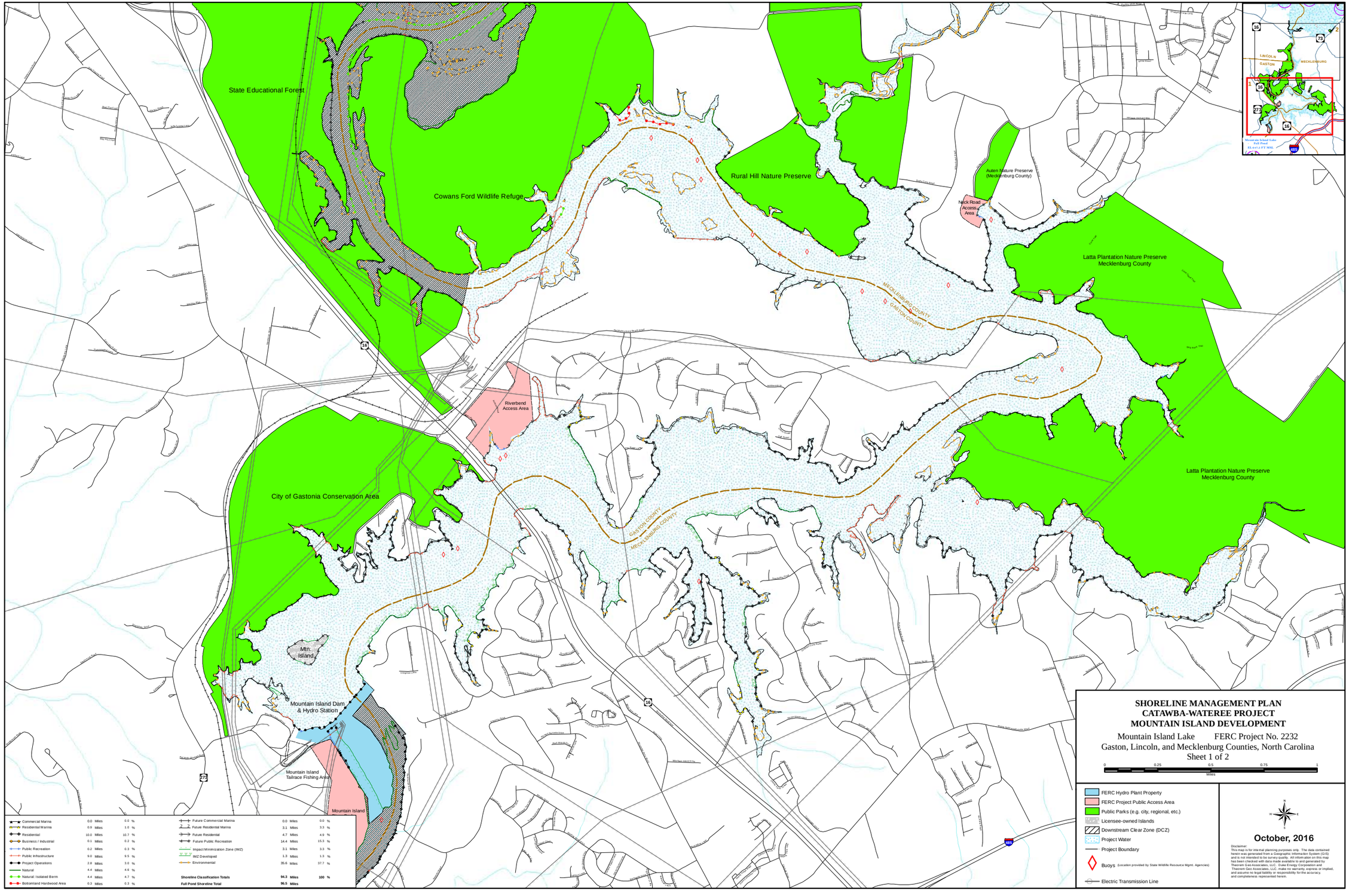
N W E S

October, 2016

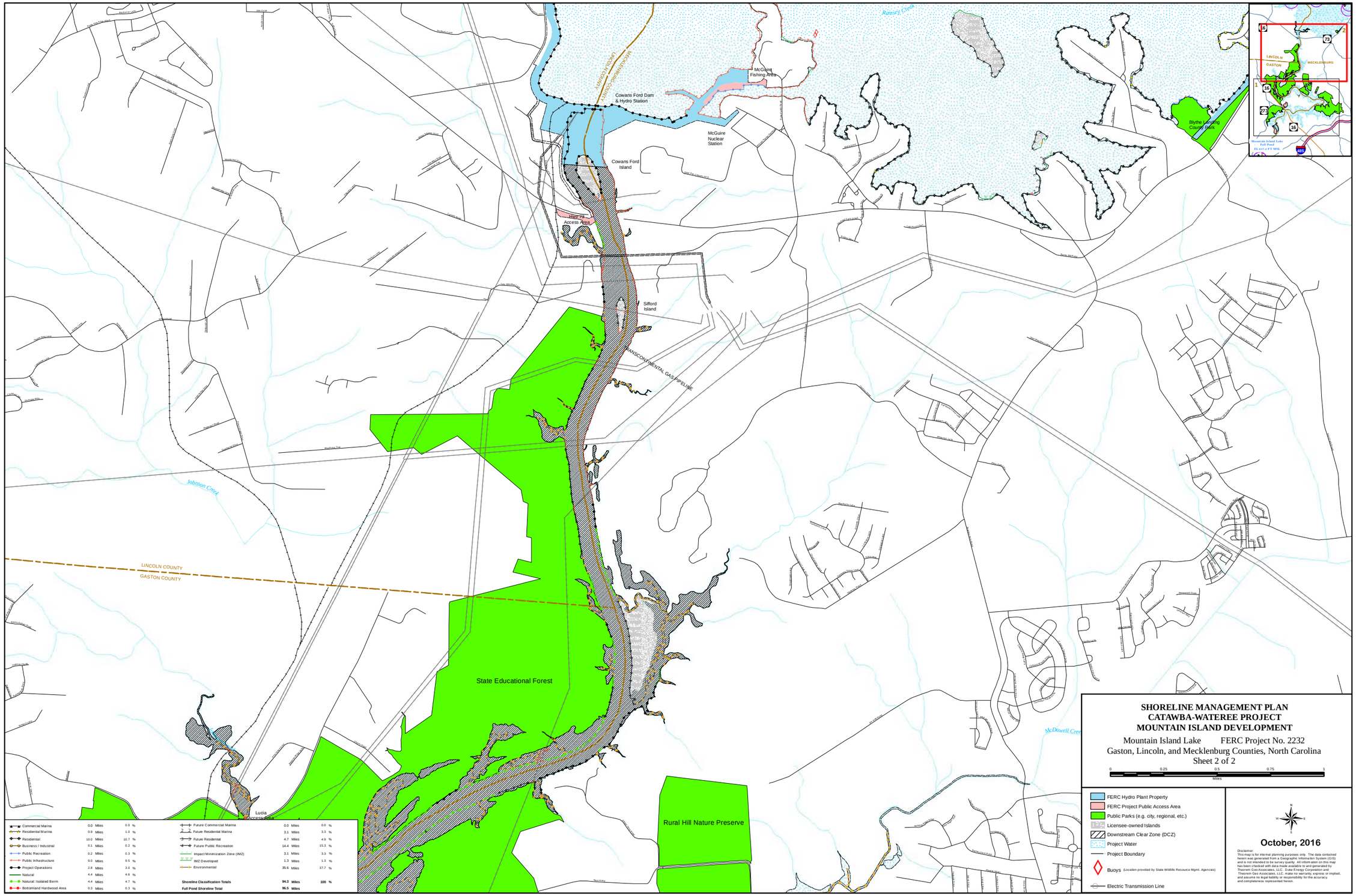
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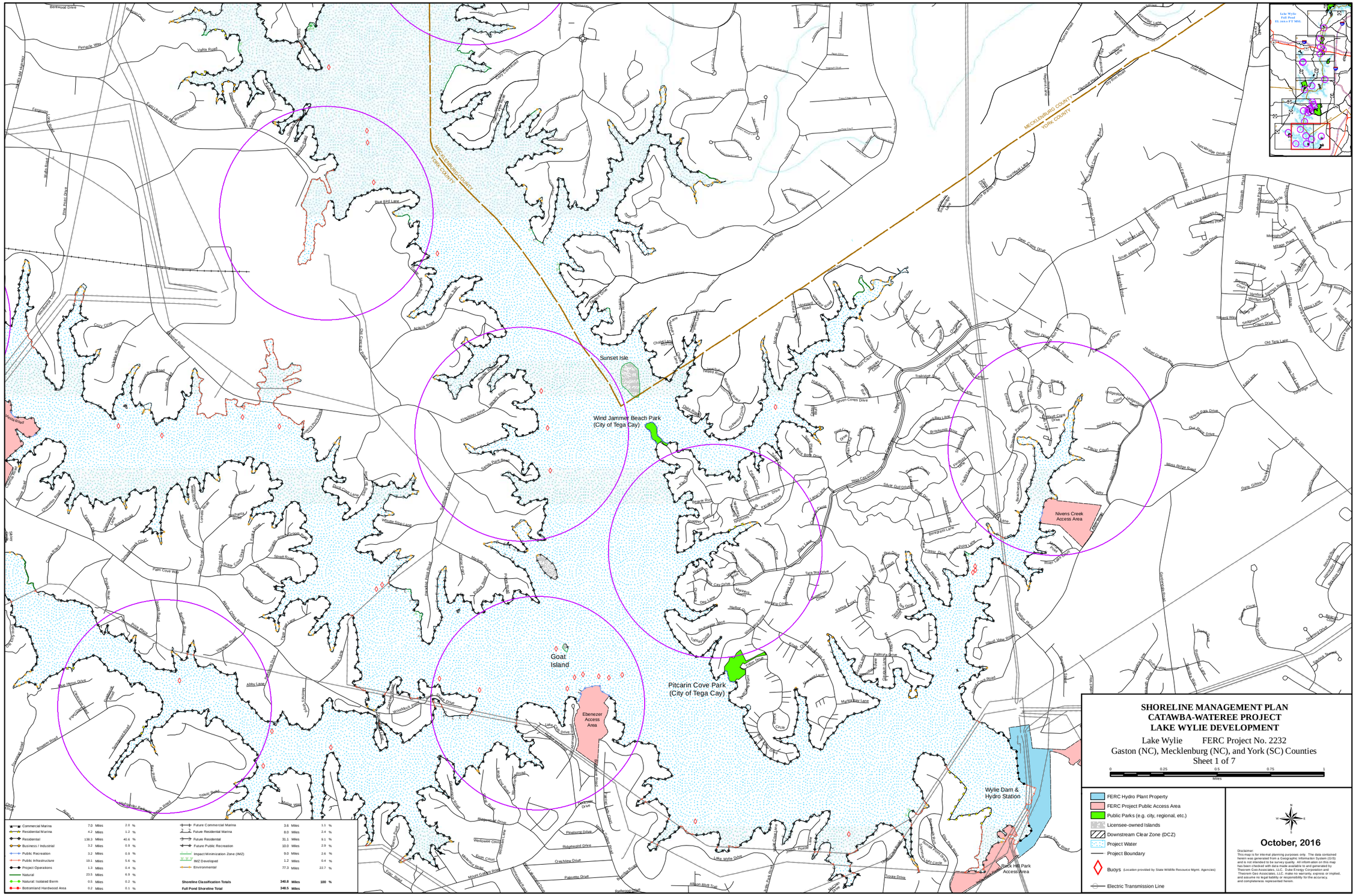

Lookout Shoals Dam & Hydro Station
Lookout Shoals Tailrace Fishing Area
Buffalo Shoals Creek
Broad Meadow Creek
NC PUBLIC SERVICE GAS PIPELINE
IREDELL COUNTY
CATAWBA COUNTY
Lake Norman Full Pond El. 760.0 FT MSL
77
40
70
SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
COWANS FORD DEVELOPMENT
Lake Norman FERC Project No. 2232
Catawba, Iredell, Lincoln, and Mecklenburg Counties, North Carolina
Sheet 10 of 10
0 0.25 0.5 0.75 1
Miles
FERC Hydro Plant Property
FERC Project Public Access Area
Public Parks (e.g. city, regional, etc.)
Licensee-owned Islands
Downstream Clear Zone (DCZ)
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Commercial Marina 6.7 Miles 1.2 %
Residential Marina 22.0 Miles 3.9 %
Residential 319.9 Miles 56.9 %
Business / Industrial 4.3 Miles 0.8 %
Public Recreation 2.2 Miles 0.4 %
Public Infrastructure 27.4 Miles 4.9 %
Project Operations 3.7 Miles 0.7 %
Natural 6.8 Miles 1.2 %
Natural: Isolated Berm 2.1 Miles 0.4 %
Bottomland Hardwood Area 1.0 Miles 0.2 %
Future Commercial Marina 7.2 Miles 1.3 %
Future Residential Marina 9.5 Miles 1.7 %
Future Residential 58.2 Miles 10.3 %
Future Public Recreation 25.4 Miles 4.5 %
Impact Minimization Zone (IMZ) 10.0 Miles 1.8 %
IMZ Developed 3.1 Miles 0.5 %
Environmental 52.8 Miles 9.4 %
Shoreline Classification Totals 562.3 Miles 100 %
Full Pond Shoreline Total 603.1 Miles



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Commercial Marina	7.0	Miles	2.0 %	Future Commercial Marina	3.6	Miles	1.1 %
Residential Marina	4.2	Miles	1.2 %	Future Residential Marina	8.0	Miles	2.4 %
Residential	138.3	Miles	40.6 %	Future Residential	31.1	Miles	9.1 %
Business / Industrial	3.2	Miles	0.9 %	Future Public Recreation	10.0	Miles	2.9 %
Public Recreation	3.2	Miles	0.9 %	Impact Minimization Zone (IMZ)	9.0	Miles	2.6 %
Public Infrastructure	19.1	Miles	5.6 %	IMZ Developed	1.2	Miles	0.4 %
Project Operations	1.3	Miles	0.4 %	Environmental	77.3	Miles	22.7 %
Natural	23.5	Miles	6.9 %				
Natural: Isolated Berm	0.5	Miles	0.2 %	**Shoreline Classification Totals**	**340.8**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	0.1 %	**Full Pond Shoreline Total**	**348.5**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
LAKE WYLIE DEVELOPMENT

Lake Wylie FERC Project No. 2232
Gaston (NC), Mecklenburg (NC), and York (SC) Counties
Sheet 1 of 7

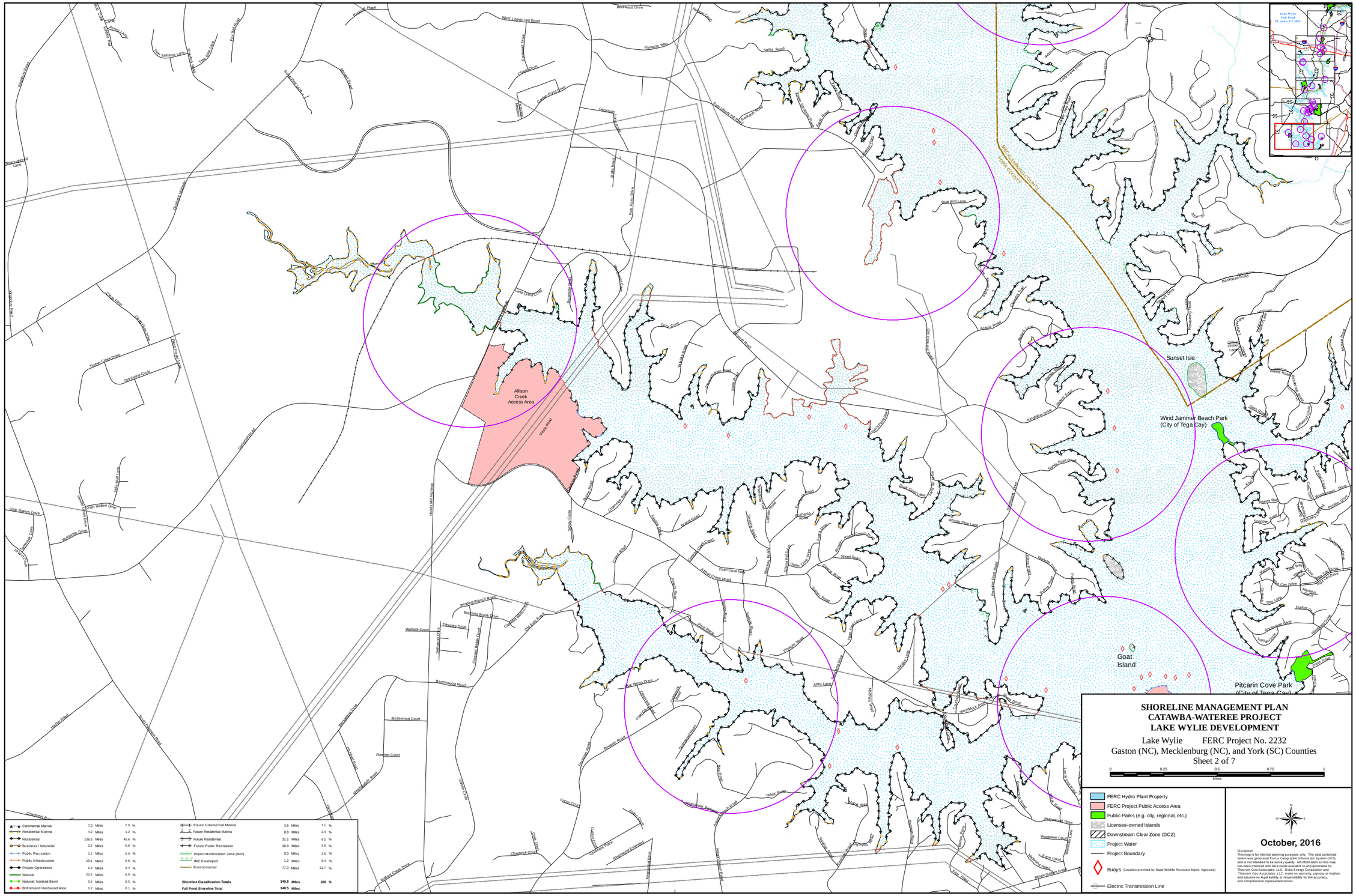
0 0.25 0.5 0.75 1 Miles

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

October, 2016

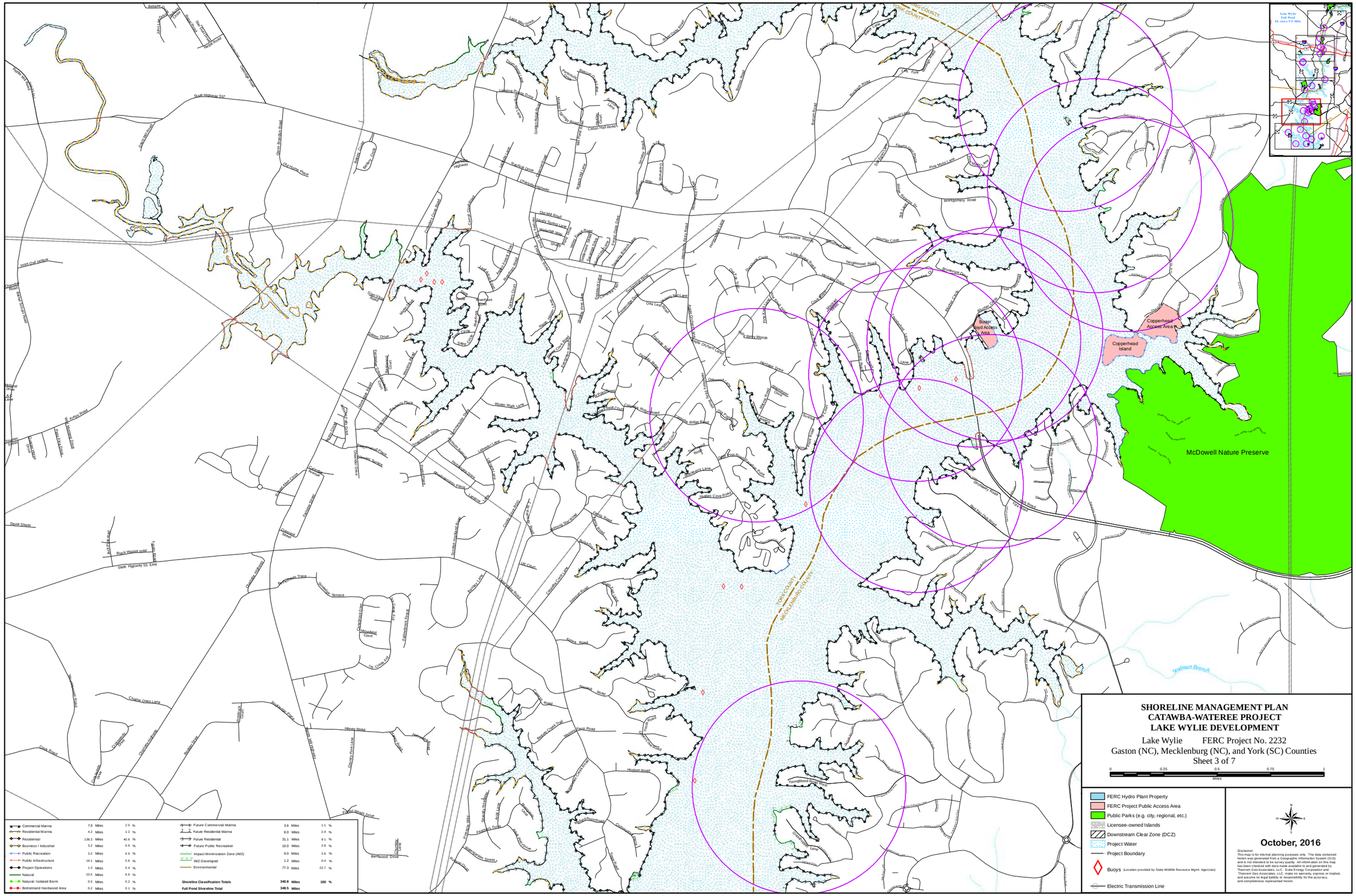
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Commercial Marina	7.0	Miles	2.0 %	Future Commercial Marina	3.6	Miles	1.1 %
Residential Marina	4.2	Miles	1.2 %	Future Residential Marina	8.0	Miles	2.4 %
Residential	138.3	Miles	40.6 %	Future Residential	31.1	Miles	9.1 %
Business / Industrial	3.2	Miles	0.9 %	Future Public Recreation	10.0	Miles	2.9 %
Public Recreation	3.2	Miles	0.9 %	Impact Minimization Zone (IMZ)	9.0	Miles	2.6 %
Public Infrastructure	19.1	Miles	5.6 %	IMZ Developed	1.2	Miles	0.4 %
Project Operations	1.3	Miles	0.4 %	Environmental	77.3	Miles	22.7 %
Natural	23.5	Miles	6.9 %				
Natural: Isolated Berm	0.5	Miles	0.2 %	**Shoreline Classification Totals**	**340.8**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	0.1 %	**Full Pond Shoreline Total**	**348.5**	**Miles**	

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SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
LAKE WYLIE DEVELOPMENT

Lake Wylie FERC Project No. 2232
Gaston (NC), Mecklenburg (NC), and York (SC) Counties
Sheet 3 of 7

0 0.25 0.5 0.75 1 Miles

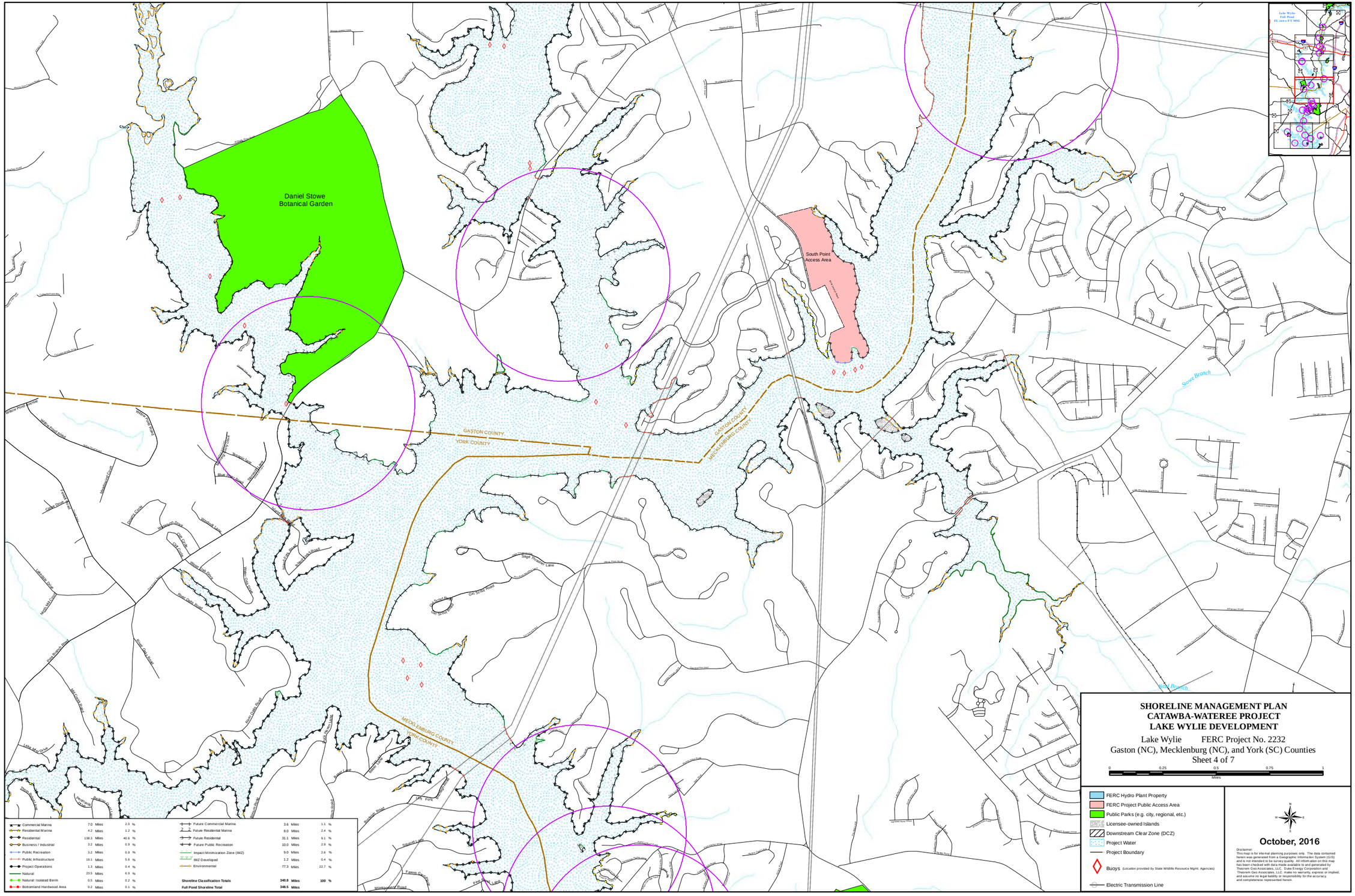
- FERC Hydro Plant Property
- FERC Project Public Access Area
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Commercial Marina	7.0	Miles	2.0 %	Future Commercial Marina	3.6	Miles	1.1 %
Residential Marina	4.2	Miles	1.2 %	Future Residential Marina	8.0	Miles	2.4 %
Residential	138.3	Miles	40.6 %	Future Residential	31.1	Miles	9.1 %
Business / Industrial	3.2	Miles	0.9 %	Future Public Recreation	10.0	Miles	2.9 %
Public Recreation	3.2	Miles	0.9 %	Impact Minimization Zone (IMZ)	9.0	Miles	2.6 %
Public Infrastructure	19.1	Miles	5.6 %	IMZ Developed	1.2	Miles	0.4 %
Project Operations	1.3	Miles	0.4 %	Environmental	77.3	Miles	22.7 %
Natural	23.5	Miles	6.9 %				
Natural Isolated Berm	0.5	Miles	0.2 %	**Shoreline Classification Totals**	**340.8**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	0.1 %	**Full Pond Shoreline Total**	**348.5**	**Miles**	

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Commercial Marina	7.0	Miles	2.0 %	Future Commercial Marina	3.6	Miles	1.1 %
Residential Marina	4.2	Miles	1.2 %	Future Residential Marina	8.0	Miles	2.4 %
Residential	138.3	Miles	40.6 %	Future Residential	31.1	Miles	9.1 %
Business / Industrial	3.2	Miles	0.9 %	Future Public Recreation	10.0	Miles	2.9 %
Public Recreation	3.2	Miles	0.9 %	Impact Moderation Zone (IMZ)	9.0	Miles	2.6 %
Public Infrastructure	19.1	Miles	5.6 %	IMZ Developed	1.2	Miles	0.4 %
Project Operations	1.3	Miles	0.4 %	Environmental	77.3	Miles	22.7 %
Natural	23.5	Miles	6.9 %				
Natural: Isolated Berm	0.5	Miles	0.2 %	**Shoreline Classification Totals**	**340.8**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	0.1 %	**Full Pond Shoreline Total**	**348.5**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
LAKE WYLIE DEVELOPMENT

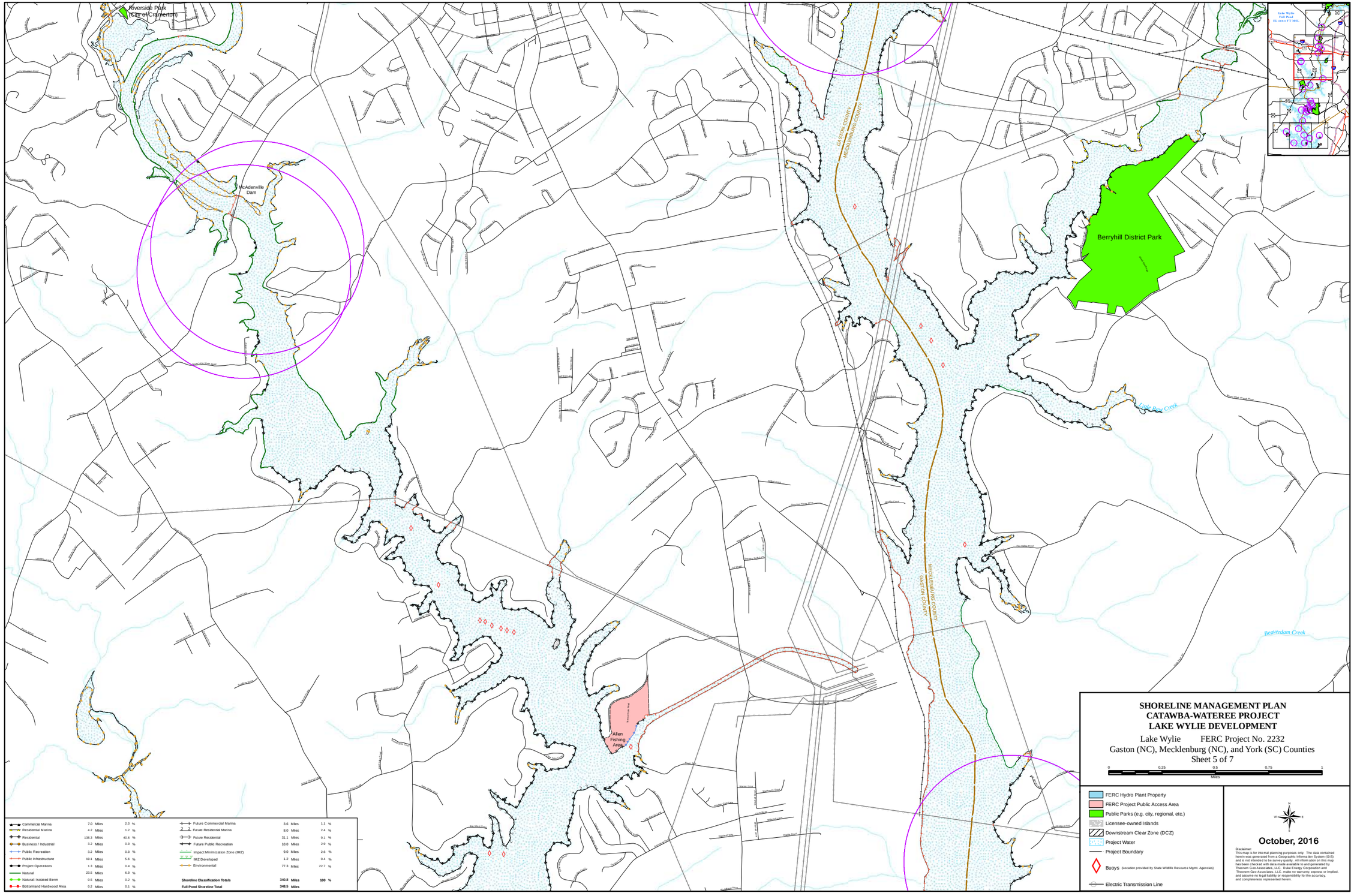
Lake Wylie FERC Project No. 2232
Gaston (NC), Mecklenburg (NC), and York (SC) Counties
Sheet 4 of 7

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Miles

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

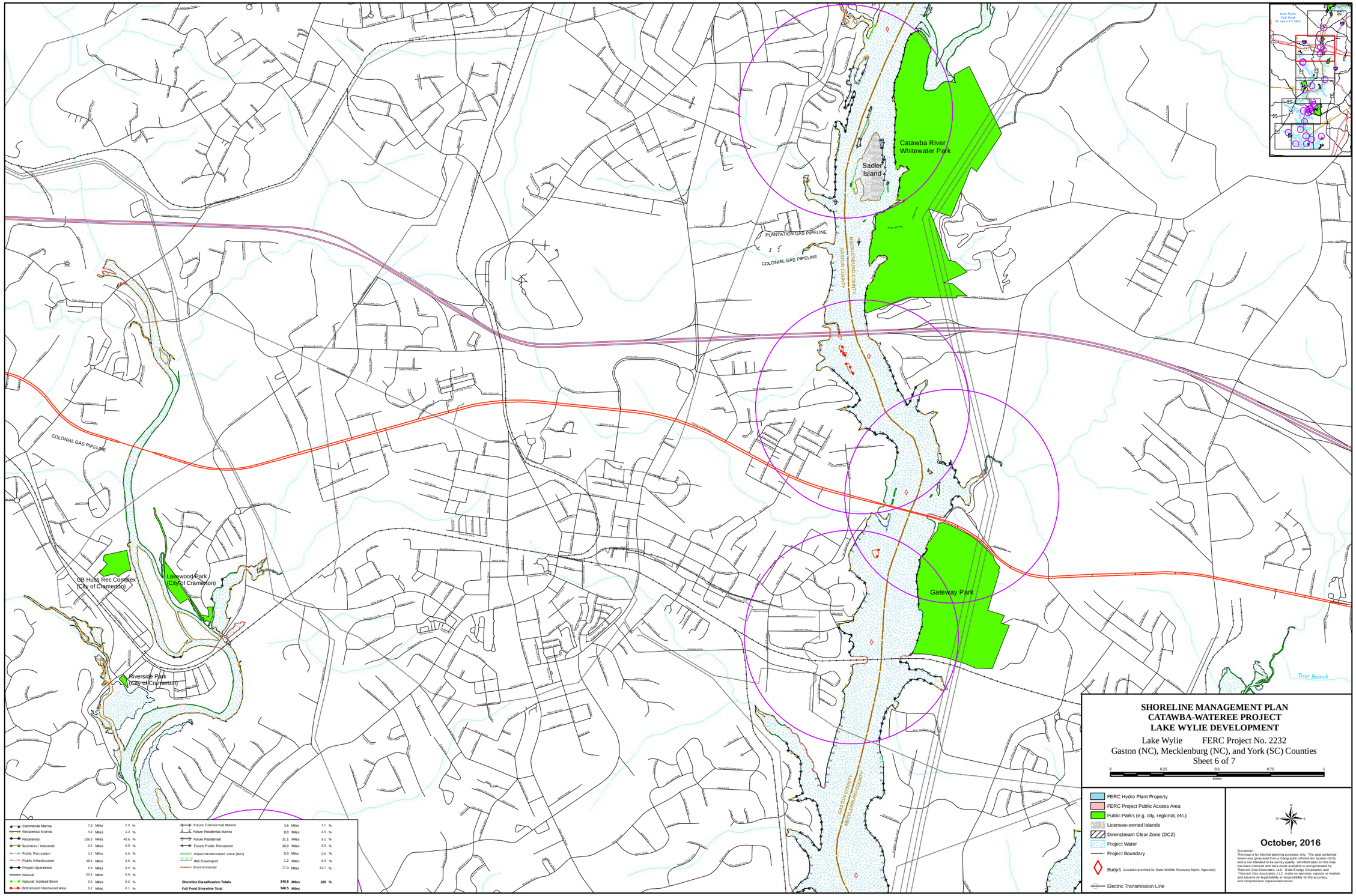
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Commercial Marina	7.0	Miles	2.0 %	Future Commercial Marina	3.6	Miles	1.1 %
Residential Marina	4.2	Miles	1.2 %	Future Residential Marina	8.0	Miles	2.4 %
Residential	138.3	Miles	40.6 %	Future Residential	31.1	Miles	9.1 %
Business / Industrial	3.2	Miles	0.9 %	Future Public Recreation	10.0	Miles	2.9 %
Public Recreation	3.2	Miles	0.9 %	Impact Minimization Zone (IMZ)	9.0	Miles	2.6 %
Public Infrastructure	19.1	Miles	5.6 %	IMZ Developed	1.2	Miles	0.4 %
Project Operations	1.3	Miles	0.4 %	Environmental	77.3	Miles	22.7 %
Natural	23.5	Miles	6.9 %				
Natural: Isolated Berm	0.5	Miles	0.2 %	**Shoreline Classification Totals**	**340.8**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	0.1 %	**Full Pond Shoreline Total**	**348.5**	**Miles**	

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Commercial Marina	7.0	Miles	2.0 %	Future Commercial Marina	3.6	Miles	1.1 %
Residential Marina	4.2	Miles	1.2 %	Future Residential Marina	8.0	Miles	2.4 %
Residential	138.3	Miles	40.6 %	Future Residential	31.1	Miles	9.1 %
Business / Industrial	3.2	Miles	0.9 %	Future Public Recreation	10.0	Miles	2.9 %
Public Recreation	3.2	Miles	0.9 %	Impact Minimization Zone (IMZ)	9.0	Miles	2.6 %
Public Infrastructure	19.1	Miles	5.6 %	IMZ Developed	1.2	Miles	0.4 %
Project Operations	1.3	Miles	0.4 %	Environmental	77.3	Miles	22.7 %
Natural	23.5	Miles	6.9 %				
Natural: Isolated Berm	0.5	Miles	0.2 %	**Shoreline Classification Totals**	**340.8**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	0.1 %	**Full Pond Shoreline Total**	**348.5**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
LAKE WYLIE DEVELOPMENT

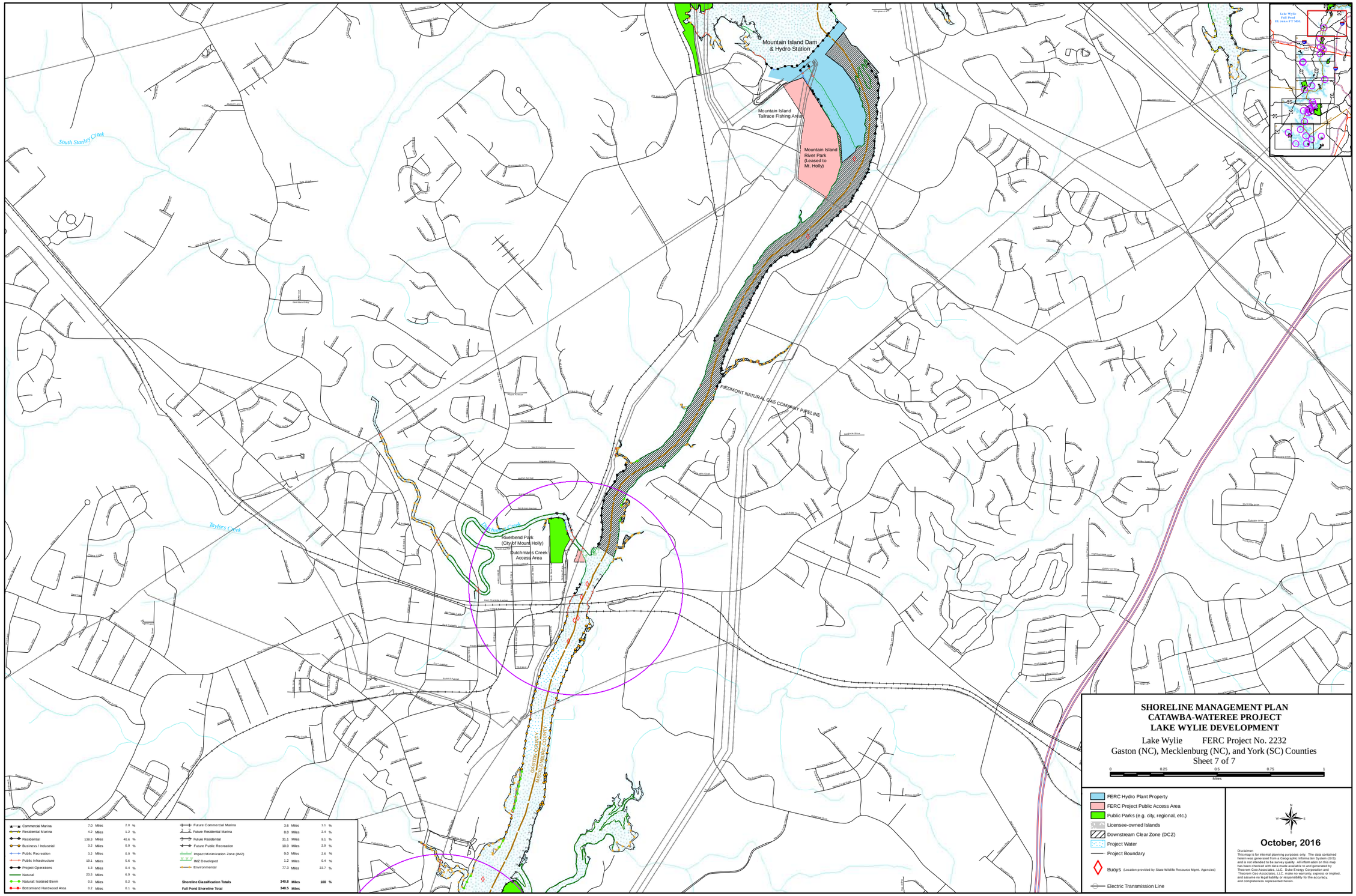
Lake Wylie FERC Project No. 2232
Gaston (NC), Mecklenburg (NC), and York (SC) Counties
Sheet 6 of 7

0 0.25 0.5 0.75 1
Miles

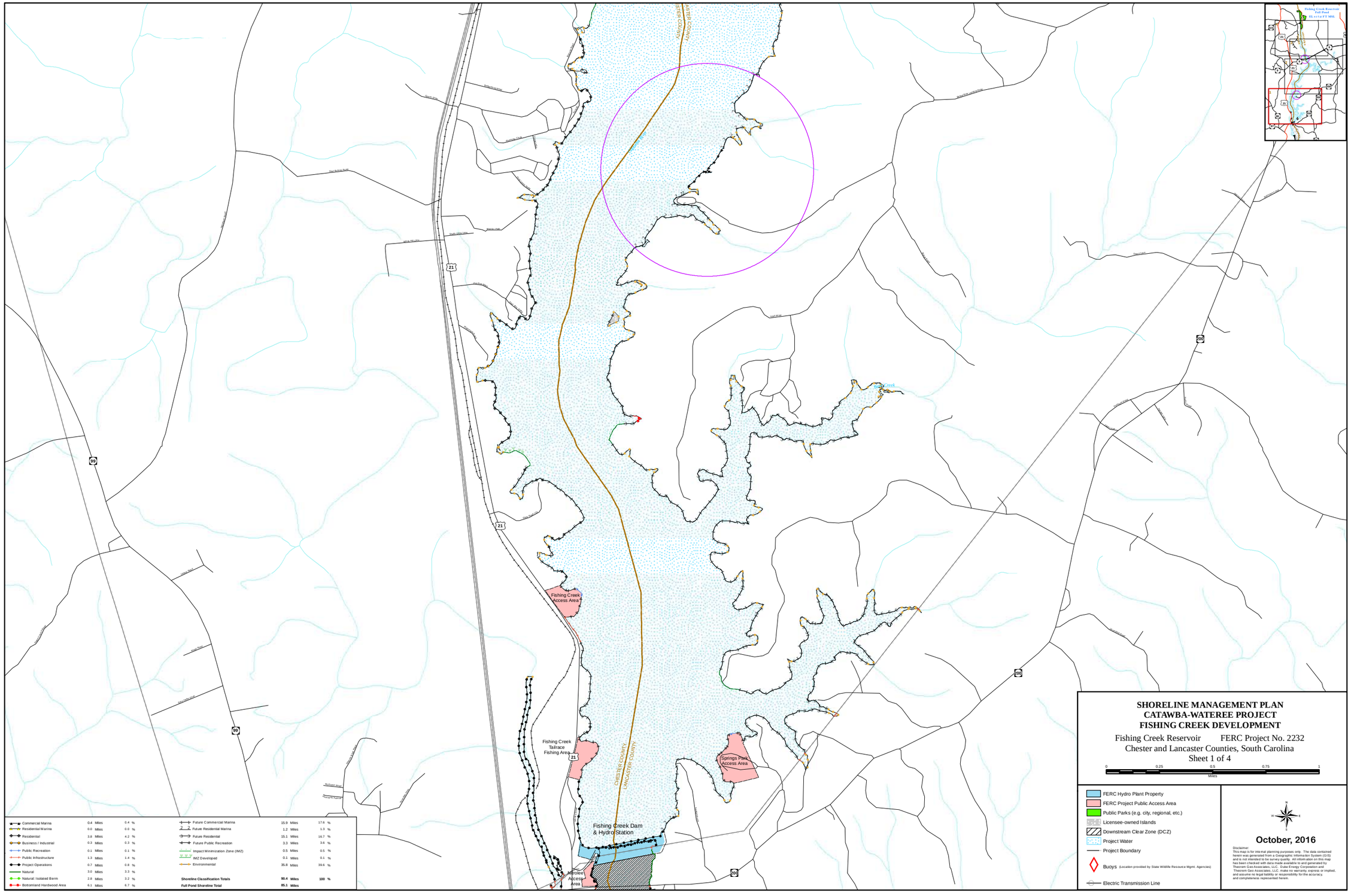
- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

October, 2016

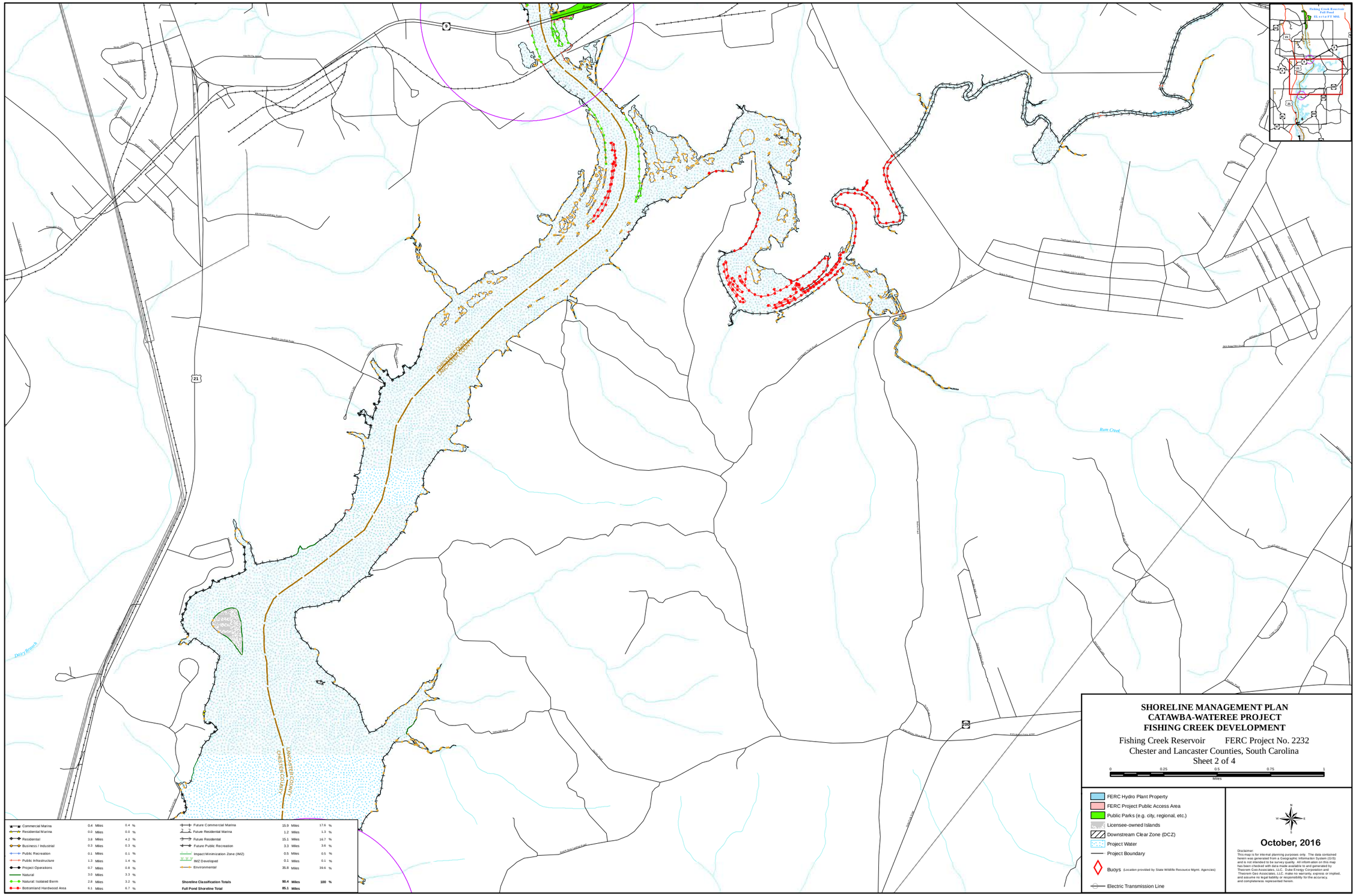
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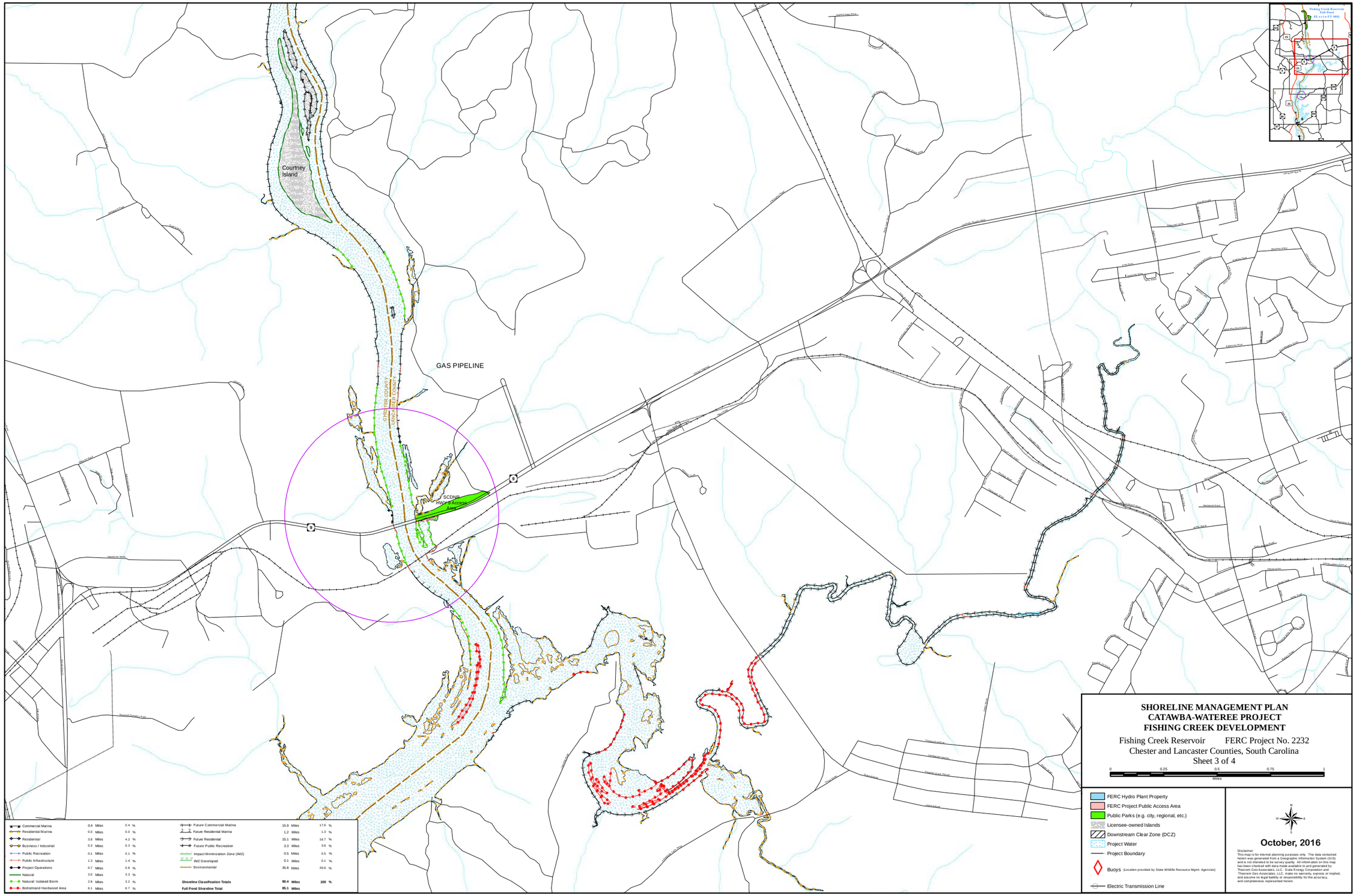
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SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
FISHING CREEK DEVELOPMENT

Fishing Creek Reservoir FERC Project No. 2232
Chester and Lancaster Counties, South Carolina
Sheet 3 of 4

0 0.25 0.5 0.75 1
Miles

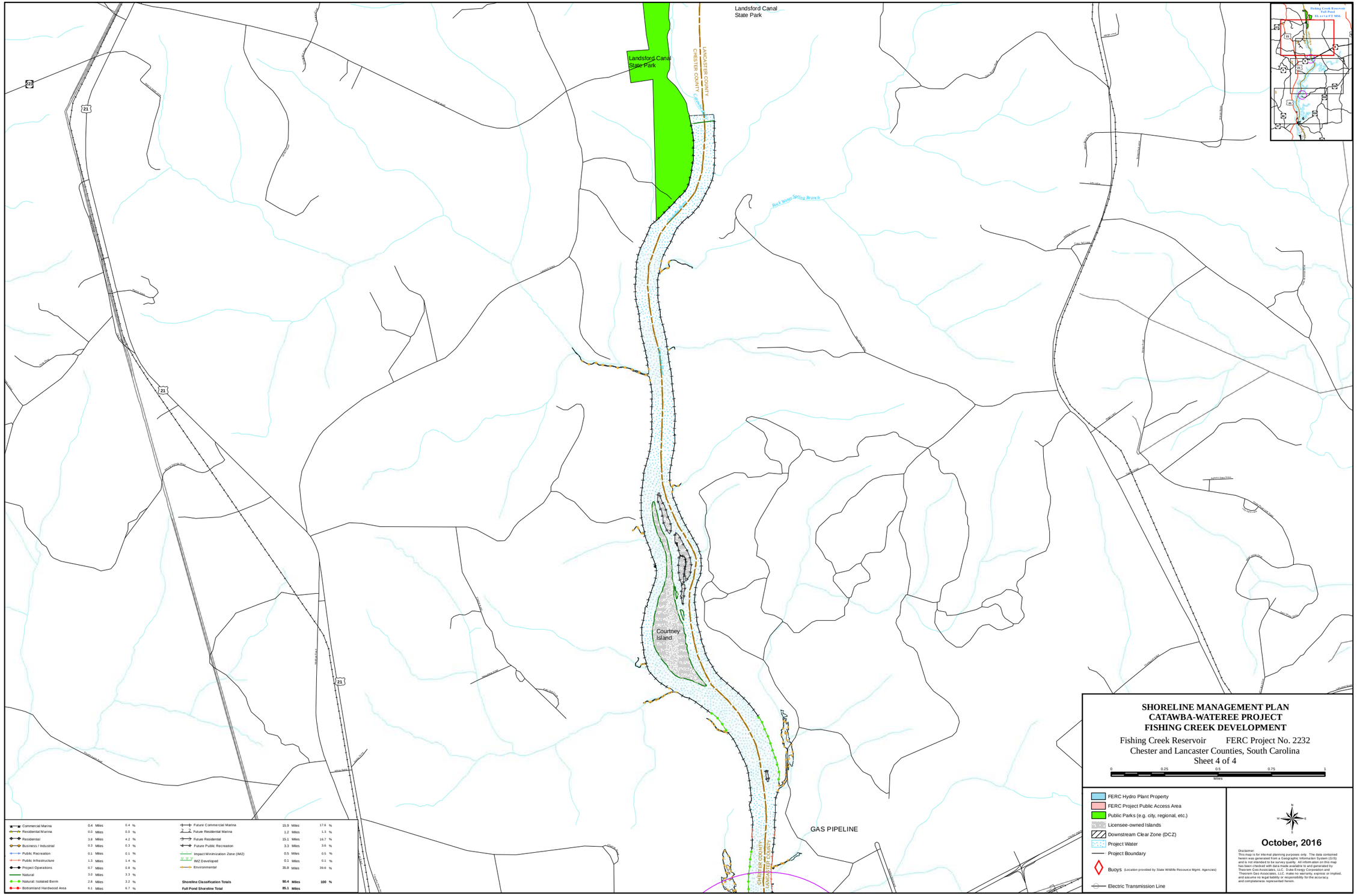
Commercial Marina	0.4	Miles	0.4 %	Future Commercial Marina	15.9	Miles	17.6 %
Residential Marina	0.0	Miles	0.0 %	Future Residential Marina	1.2	Miles	1.3 %
Residential	3.8	Miles	4.2 %	Future Residential	15.1	Miles	16.7 %
Business / Industrial	0.3	Miles	0.3 %	Future Public Recreation	3.3	Miles	3.6 %
Public Recreation	0.1	Miles	0.1 %	Impact Minimization Zone (IMZ)	0.5	Miles	0.5 %
Public Infrastructure	1.3	Miles	1.4 %	IMZ Developed	0.1	Miles	0.1 %
Project Operations	0.7	Miles	0.8 %	Environmental	35.8	Miles	39.6 %
Natural	3.0	Miles	3.3 %				
Natural: Isolated Berm	2.8	Miles	3.2 %	**Shoreline Classification Totals**	**90.4**	**Miles**	**100 %**
Bottomland Hardwood Area	6.1	Miles	6.7 %	**Full Pond Shoreline Total**	**85.1**	**Miles**	

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
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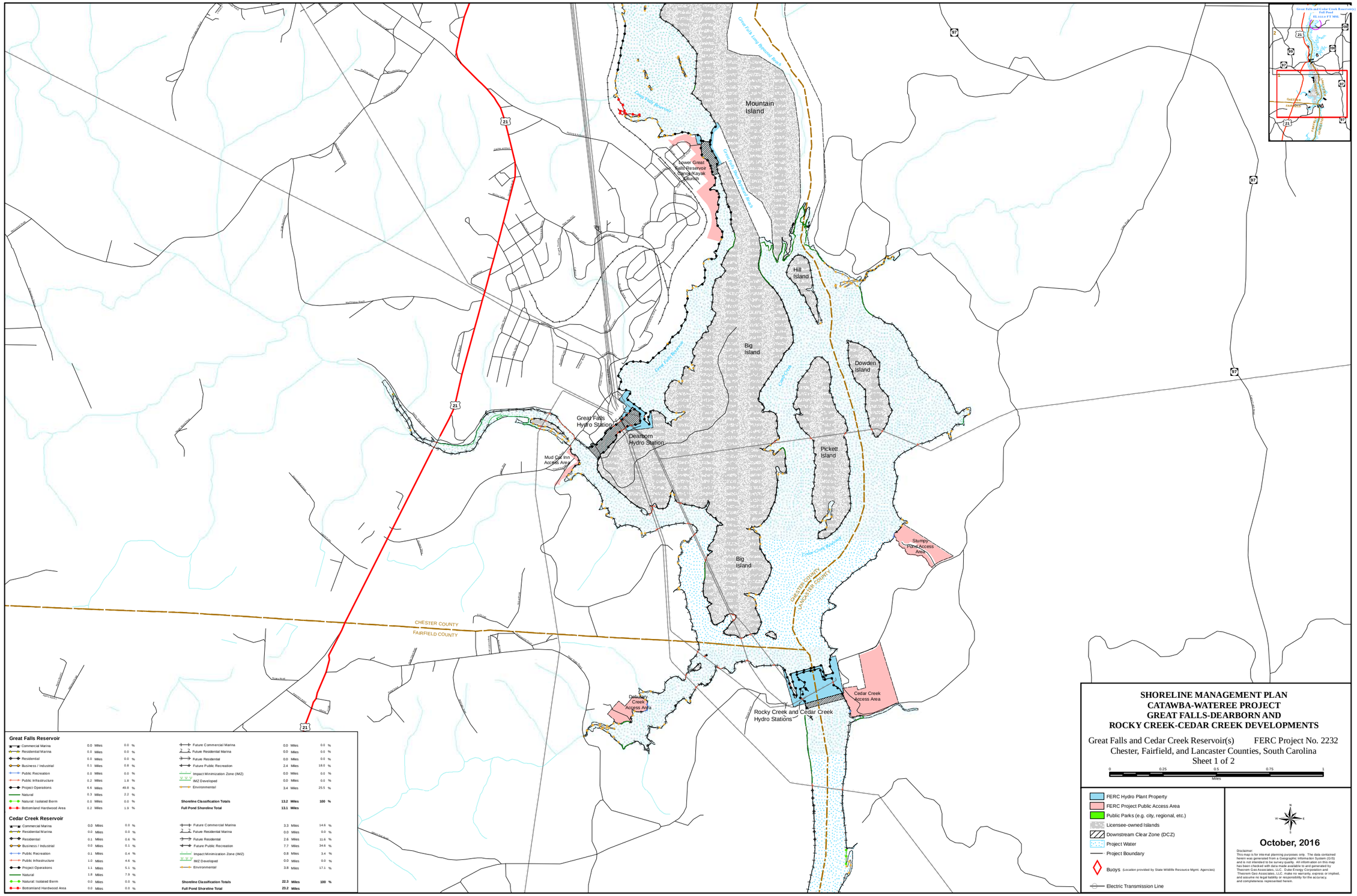
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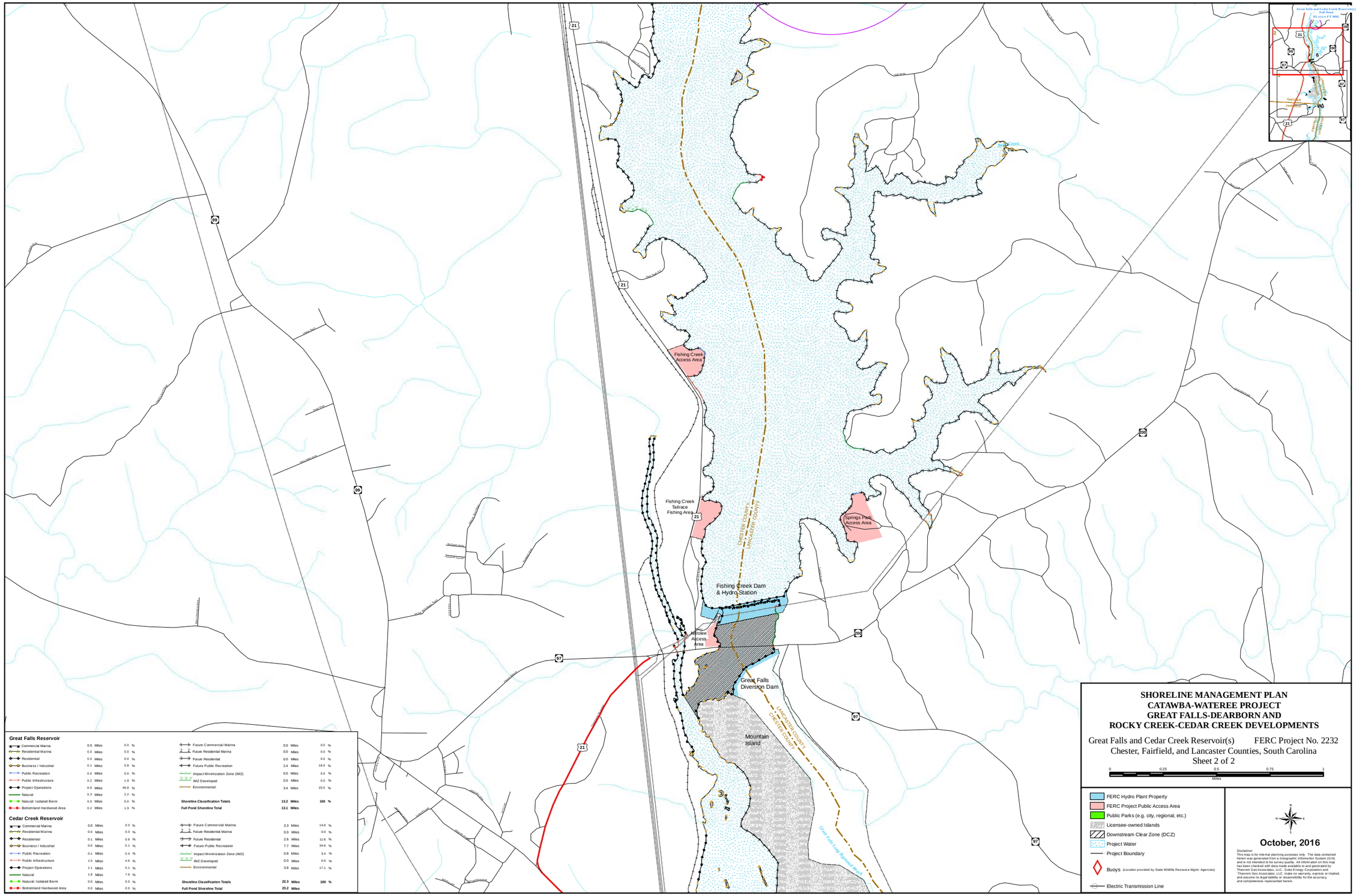


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Great Falls Reservoir

Commercial Marina	0.0	Miles	0.0 %	Future Commercial Marina	0.0	Miles	0.0 %
Residential Marina	0.0	Miles	0.0 %	Future Residential Marina	0.0	Miles	0.0 %
Residential	0.0	Miles	0.0 %	Future Residential	0.0	Miles	0.0 %
Business / Industrial	0.1	Miles	0.8 %	Future Public Recreation	2.4	Miles	18.0 %
Public Recreation	0.0	Miles	0.0 %	Impact Minimization Zone (IMZ)	0.0	Miles	0.0 %
Public Infrastructure	0.2	Miles	1.8 %	IMZ Developed	0.0	Miles	0.0 %
Project Operations	6.6	Miles	49.8 %	Environmental	3.4	Miles	25.5 %
Natural	0.3	Miles	2.2 %				
Natural: Isolated Berm	0.0	Miles	0.0 %	**Shoreline Classification Totals**	**13.2**	**Miles**	**100 %**
Bottomland Hardwood Area	0.2	Miles	1.9 %	**Full Pond Shoreline Total**	**13.1**	**Miles**	

Cedar Creek Reservoir

Commercial Marina	0.0	Miles	0.0 %	Future Commercial Marina	3.3	Miles	14.6 %
Residential Marina	0.0	Miles	0.0 %	Future Residential Marina	0.0	Miles	0.0 %
Residential	0.1	Miles	0.6 %	Future Residential	2.6	Miles	11.6 %
Business / Industrial	0.0	Miles	0.1 %	Future Public Recreation	7.7	Miles	34.6 %
Public Recreation	0.1	Miles	0.4 %	Impact Minimization Zone (IMZ)	0.8	Miles	3.4 %
Public Infrastructure	1.0	Miles	4.6 %	IMZ Developed	0.0	Miles	0.0 %
Project Operations	1.1	Miles	5.1 %	Environmental	3.8	Miles	17.1 %
Natural	1.8	Miles	7.9 %				
Natural: Isolated Berm	0.0	Miles	0.0 %	**Shoreline Classification Totals**	**22.3**	**Miles**	**100 %**
Bottomland Hardwood Area	0.0	Miles	0.0 %	**Full Pond Shoreline Total**	**23.2**	**Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
GREAT FALLS-DEARBORN AND
ROCKY CREEK-CEDAR CREEK DEVELOPMENTS

Great Falls and Cedar Creek Reservoir(s) FERC Project No. 2232
Chester, Fairfield, and Lancaster Counties, South Carolina
Sheet 2 of 2

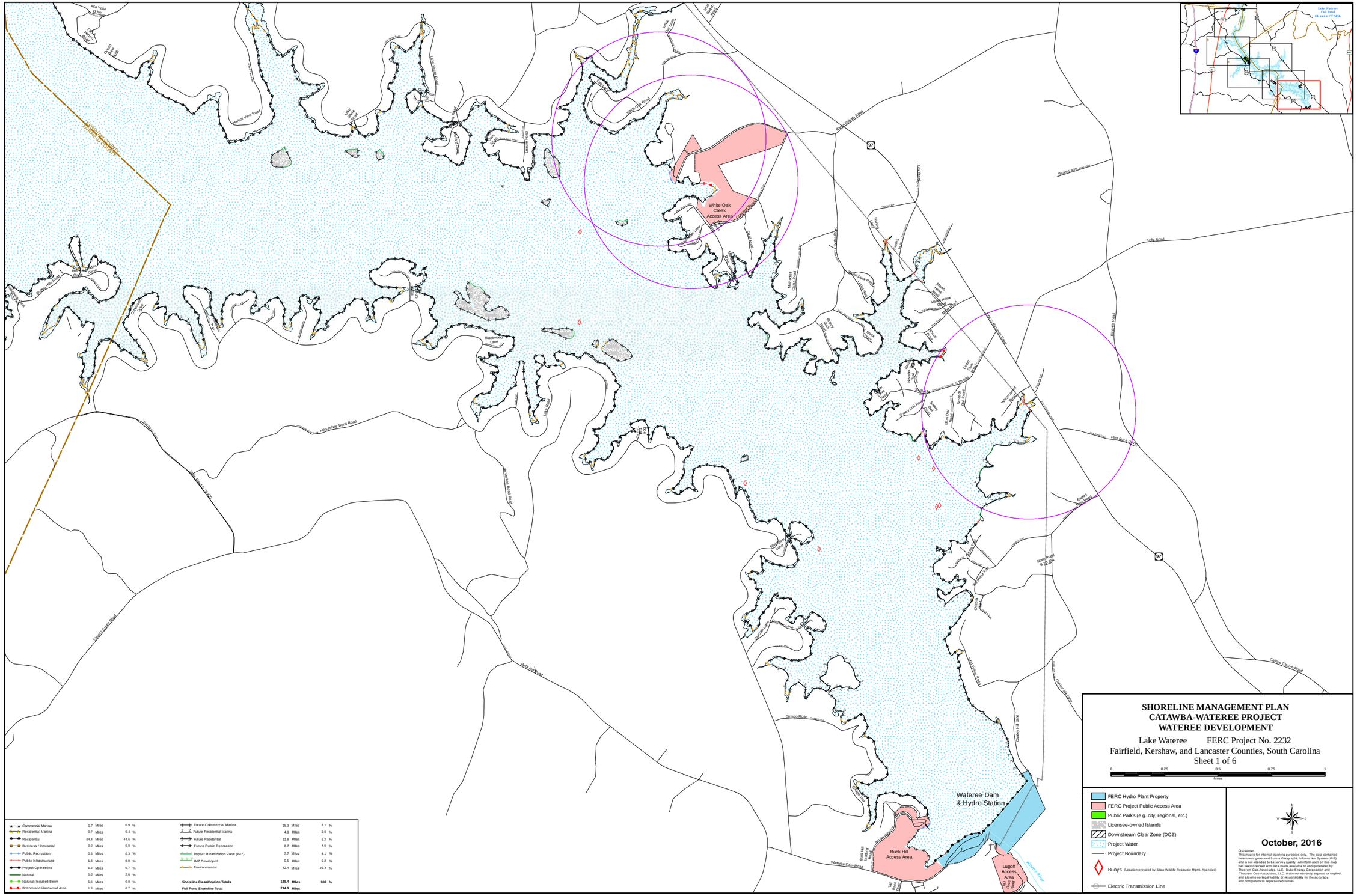
0 0.25 0.5 0.75 1
Miles

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
- Downstream Clear Zone (DCZ)
- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
- Electric Transmission Line

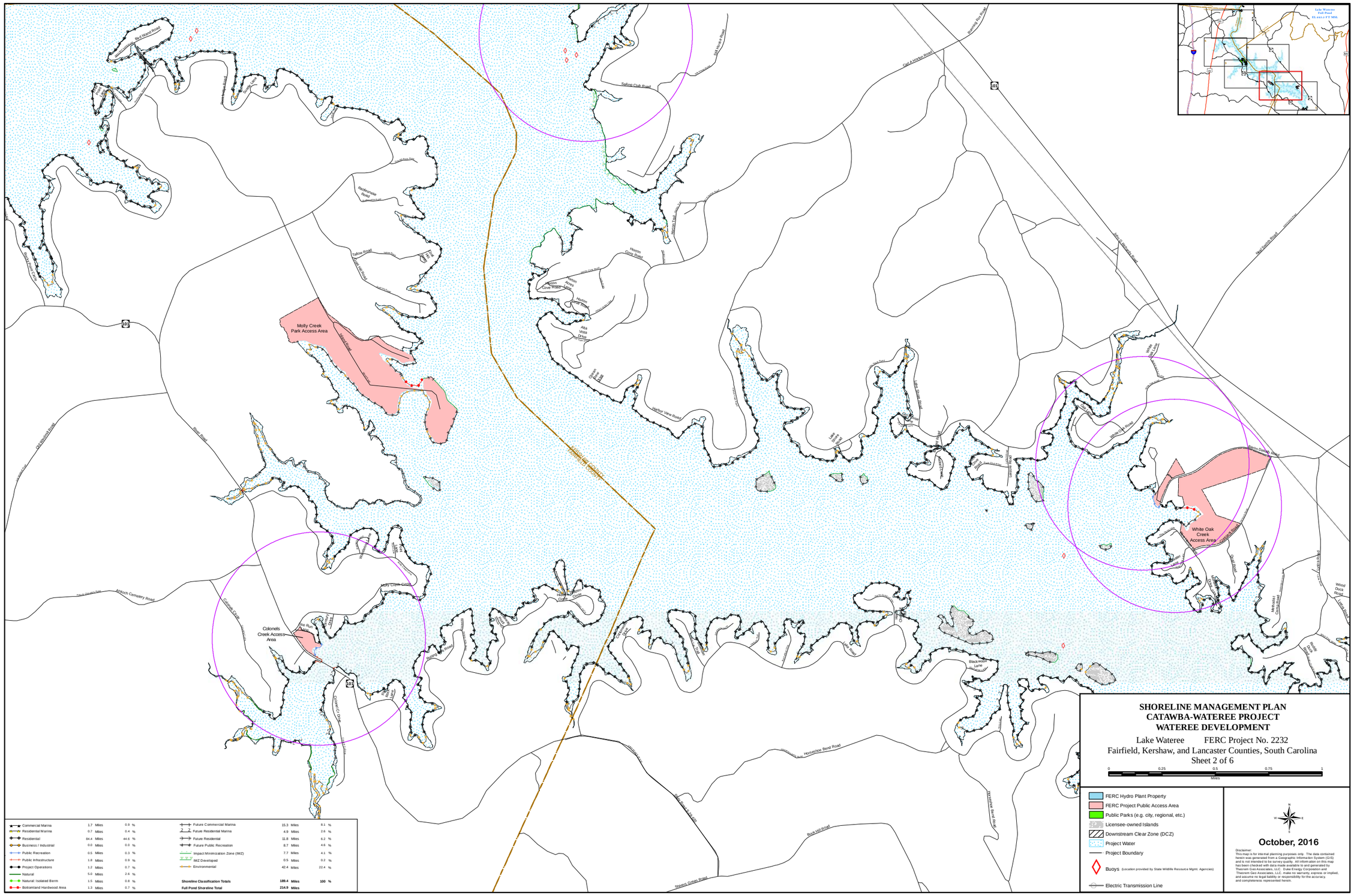
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October, 2016

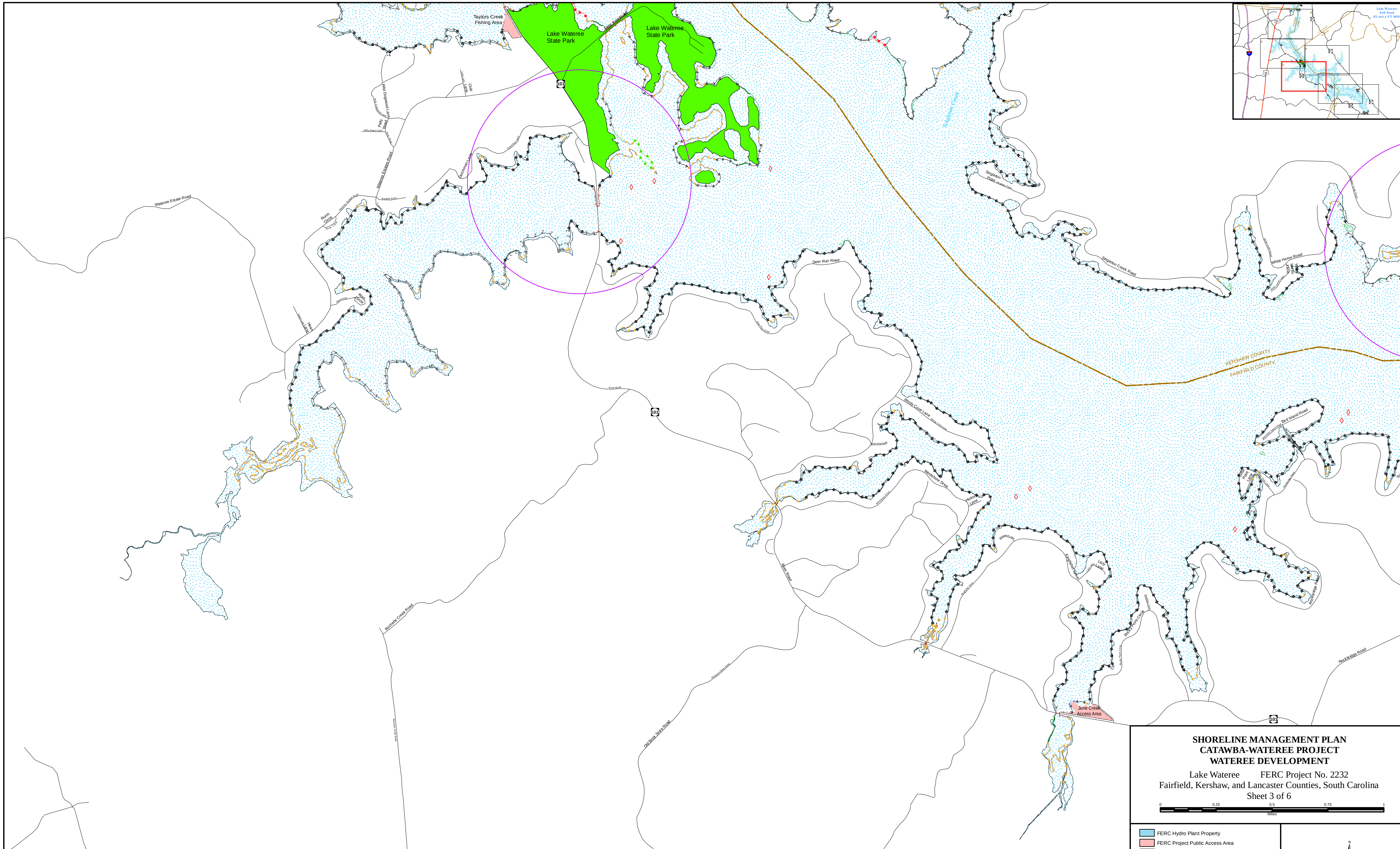
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Commercial Marina	1.7 Miles	0.9 %	Future Commercial Marina	15.3 Miles	8.1 %
Residential Marina	0.7 Miles	0.4 %	Future Residential Marina	4.9 Miles	2.6 %
Residential	84.4 Miles	44.6 %	Future Residential	11.8 Miles	6.2 %
Business / Industrial	0.0 Miles	0.0 %	Future Public Recreation	8.7 Miles	4.6 %
Public Recreation	0.5 Miles	0.3 %	Impact Minimization Zone (IMZ)	7.7 Miles	4.1 %
Public Infrastructure	1.8 Miles	0.9 %	IMZ Developed	0.5 Miles	0.2 %
Project Operations	1.2 Miles	0.7 %	Environmental	42.4 Miles	22.4 %
Natural	5.0 Miles	2.6 %			
Natural: Isolated Berm	1.5 Miles	0.8 %	**Shoreline Classification Totals**	**189.4 Miles**	**100 %**
Bottomland Hardwood Area	1.3 Miles	0.7 %	**Full Pond Shoreline Total**	**214.9 Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
WATEREE DEVELOPMENT

Lake Wateree FERC Project No. 2232
Fairfield, Kershaw, and Lancaster Counties, South Carolina
Sheet 3 of 6

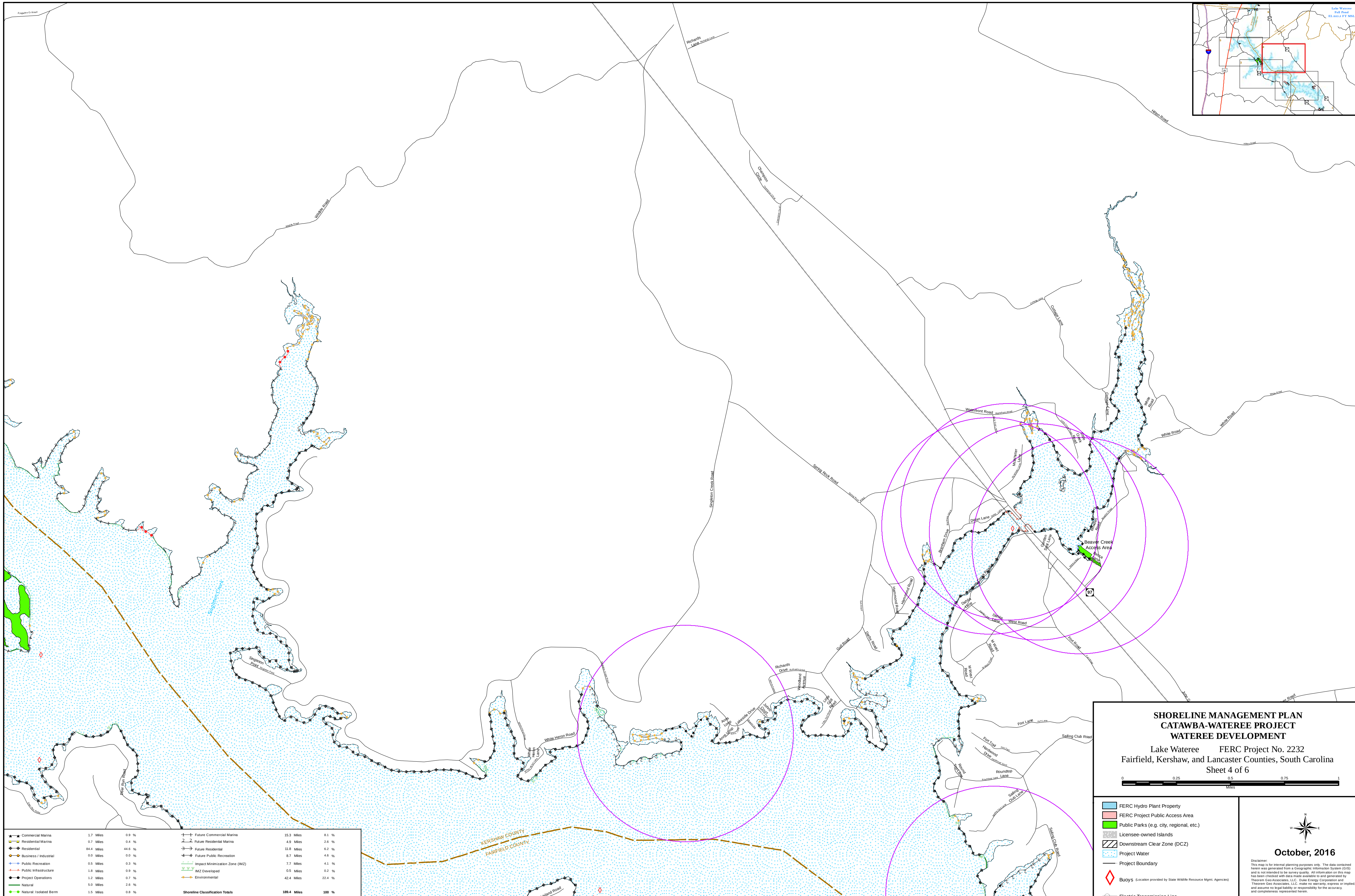
0 0.25 0.5 0.75 1
Miles

- FERC Hydro Plant Property
- FERC Project Public Access Area
- Public Parks (e.g. city, regional, etc.)
- Licensee-owned Islands
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- Project Water
- Project Boundary
- Buoys (Location provided by State Wildlife Resource Mgmt. Agencies)
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Commercial Marina	1.7 Miles	0.9 %
Residential Marina	0.7 Miles	0.4 %
Residential	84.4 Miles	44.6 %
Business / Industrial	0.0 Miles	0.0 %
Public Recreation	0.5 Miles	0.3 %
Public Infrastructure	1.8 Miles	0.9 %
Project Operations	1.2 Miles	0.7 %
Natural	5.0 Miles	2.6 %
Natural: Isolated Berm	1.5 Miles	0.8 %
Bottomland Hardwood Area	1.3 Miles	0.7 %
Future Commercial Marina	15.3 Miles	8.1 %
Future Residential Marina	4.9 Miles	2.6 %
Future Residential	11.8 Miles	6.2 %
Future Public Recreation	8.7 Miles	4.6 %
Impact Minimization Zone (IMZ)	7.7 Miles	4.1 %
IMZ Developed	0.5 Miles	0.2 %
Environmental	42.4 Miles	22.4 %
Shoreline Classification Totals	**189.4 Miles**	**100 %**
Full Pond Shoreline Total	**214.9 Miles**	

SHORELINE MANAGEMENT PLAN
CATAWBA-WATEREE PROJECT
WATEREE DEVELOPMENT

Lake Wateree FERC Project No. 2232
Fairfield, Kershaw, and Lancaster Counties, South Carolina
Sheet 4 of 6

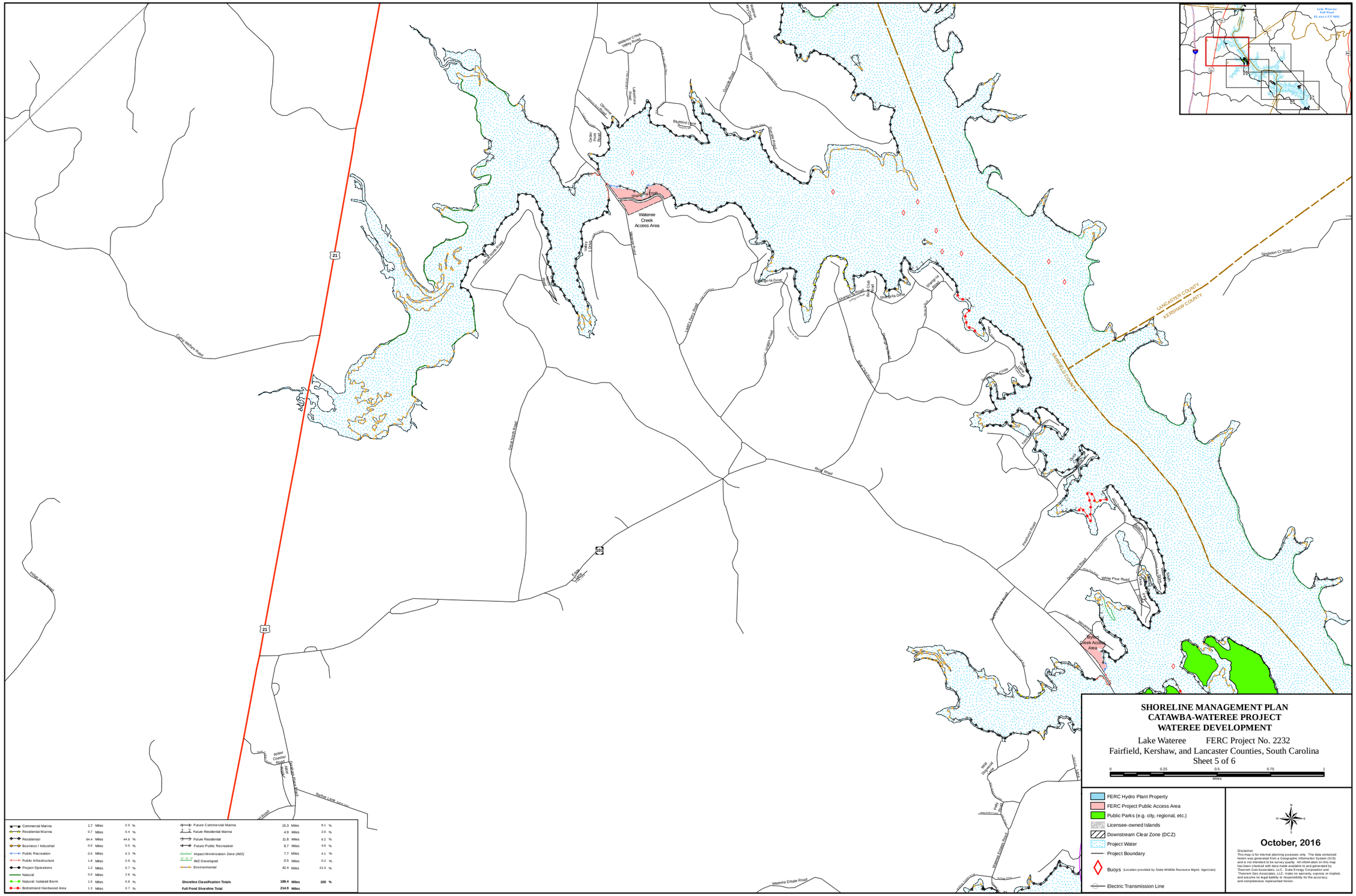
0 0.25 0.5 0.75 1
Miles

FERC Hydro Plant Property
FERC Project Public Access Area
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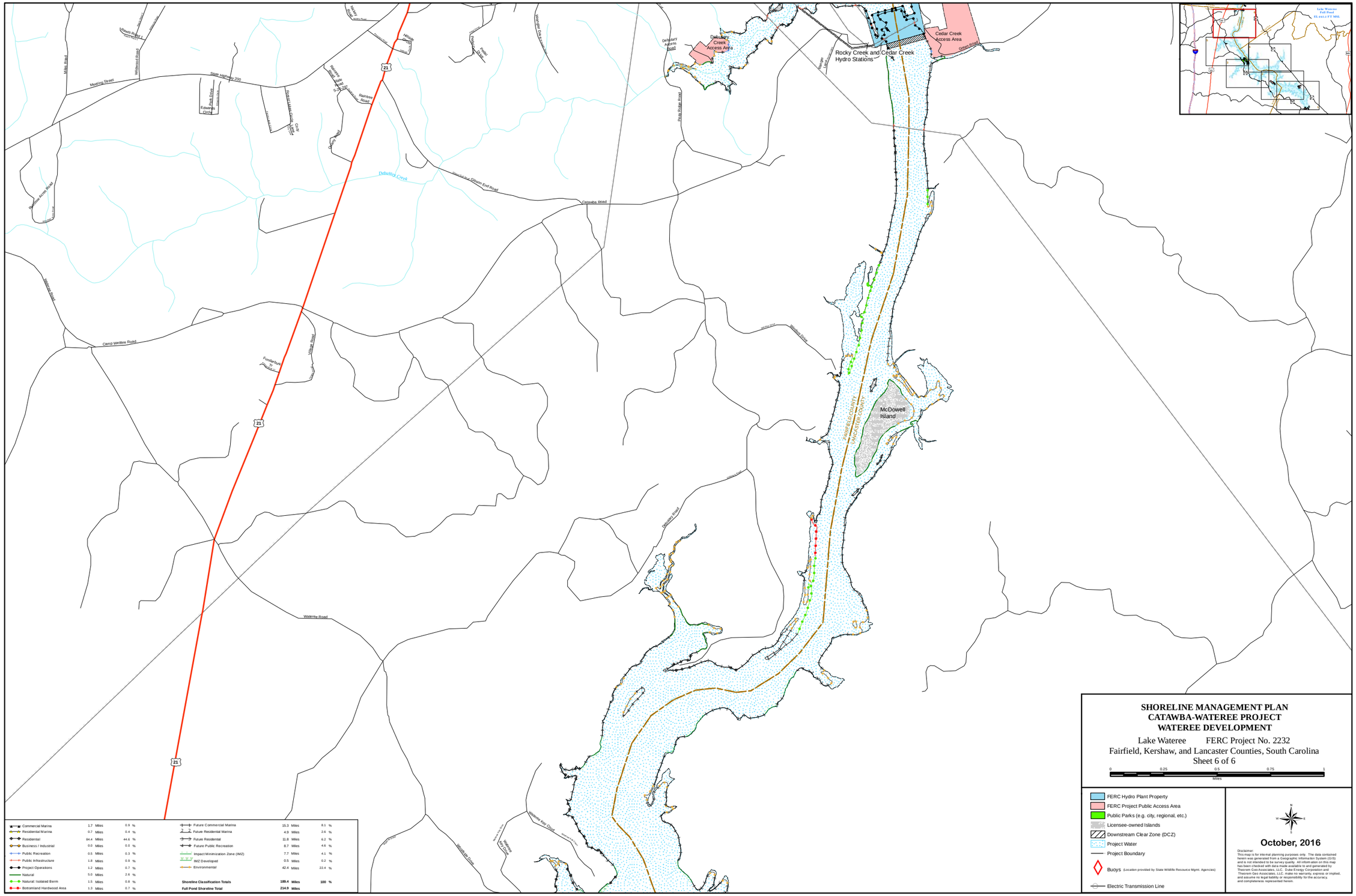
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Appendix B - Shoreline Classifications and Lake Use Restrictions

Classifications and Lake Use Restrictions for the Catawba-Wateree 2006 SMP Map Revisions (Notes 1 and 4)

1.0 **Environmental** – Vegetated areas or cove heads with stream confluence- These types of shorelines exist where either of the following two criteria are met:

1.1 Stable, wetland-type habitat and emergent vegetation (any portion of which is at least 5 horizontal ft wide) composes > 50% of the area between the minimum lakeward distance and the maximum lakeward distance of the vegetation for a linear distance of at least 100 ft (Figure 1). (Note: Common types of emergent vegetation in environmental areas may include, but are not limited to: black willow (*Salix nigra*), alder (*Alnus serrulata*), buttonbush (*Cephalanthus occidentalis*), cattail (*Typha latifolia*), and rushes (*Juncus effusus*)).

1.2 Intermittent or permanent streams enter the upper ends (i.e., heads) of shallow coves (with or lacking vegetation). For cove heads with a stream but lacking emergent vegetation, the environmental classification extends to the edge of the established sedimentation delta plus 50 ft or, in the absence of an established delta, 50 ft on each side of the intersection of the stream centerline and the full pond contour.

While many wildlife species use environmental areas, the primary importance of these areas is to provide spawning, rearing, and nursery habitat for fish, and rearing, nursery and adult habitat for amphibians, reptiles and birds.

LAKE USE RESTRICTIONS – No removal of vegetation, construction, excavation or shoreline stabilization inside the Project Boundaries.

2.0 **Bottomland Hardwood Area** – Bottomland hardwood areas typically have diverse, well-developed tree canopies consisting of some combination of hydrophytic tree species such as red maple, blackgum, sweetgum, willow oak, laurel oak, water oak, green ash, sycamore, river birch and black willow. The soils are typically sandy, organically rich, alluvial soils that exhibit hydric soil conditions. These areas have gentle slopes and often are associated with a drainage area or stream confluence. These areas must meet all three of the following criteria:

2.1 A gradual slope of 0-3% that equates to no more than a 1 foot rise in elevation within 35 feet measured horizontally and landward from the classified shoreline.

2.2 Extend along the classified shoreline a minimum distance of 250 feet either alone or in combination with the Environmental classification.

2.3 Contain a tree canopy of hydrophytic species such as red maple, blackgum, sweetgum, willow oak, laurel oak, water oak, green ash, sycamore, river birch and black willow.

LAKE USE RESTRICTIONS – No removal of vegetation, construction, excavation or shoreline stabilization inside the Project Boundaries. (*Notes: The Bottomland Hardwood Area lake use restrictions are the same as those for the Environmental classification. Reclassification of these areas can only be accomplished with the written concurrence of the state and federal wildlife resource management agencies and Lake Services based exclusively upon errors in mapping. Based upon the Comprehensive Relicensing Agreement negotiated as part of the relicensing of the Catawba-Wateree Project (No. 2232), reclassification of Bottomland Hardwood Areas based on mapping errors does not require notification or approval by the Federal Energy Regulatory Commission.)*

3.0 **Natural** – These areas have characteristics (i.e., shallow water, isolated berms, significant cultural resources or significant terrestrial habitat areas) that make most types of development inside the Project Boundaries undesirable from an overall lake management standpoint. Natural areas exist where any of the following four criteria are met:

3.1 Large areas (e.g., > 500 ft of continuous shoreline length) where water depth would be < 3 ft at a distance of 150 ft or more from the natural eroded shoreline with the reservoir level 3 ft below full pond, since extensive dredging would be needed to support private boating access.

3.2 Important terrestrial habitat areas that warrant protection from activities that could limit the area's ability to provide significant habitat important for wildlife.

3.3 Significant cultural resource areas (i.e., areas within the Project Boundaries known to include culturally significant artifacts) that warrant protection from activities that could alter the archaeological integrity of the site.

3.4 Narrow isolated berms within the Project Boundaries. These isolated berms characteristically are higher in elevation than the adjoining areas landward of the reservoir and lack the vegetation along the shoreline necessary to be classified as Environmental. Typically the landward areas adjoining the isolated berm include significant low-lying areas characteristic of floodplains, Environmental areas or wetlands.

LAKE USE RESTRICTIONS – No removal of vegetation, construction or excavation inside the Project Boundaries. (*Notes: Shoreline stabilization is allowed within the Project Boundaries provided the stabilization adheres to the Shoreline Stabilization Technique Selection Process. Isolated berms typically have the same Lake Use Restrictions as other areas classified as Natural. In instances where these berms are not isolated by low-lying areas characteristic of floodplains, Environmental areas or wetlands within the Project Boundaries, the Lake Services Representative may allow Residential Facilities to extend into the reservoir provided there is no other practicable alternative*.)

4.0 **Impact Minimization Zones (IMZ)** (*Note 2*) – Project lands and waters that have specifically-identified importance on a given lake from a scenic, environmental, or cultural standpoint but protection of those important values does not necessarily preclude private, commercial, business or industrial access to the lake. Applicants must first try to avoid IMZs, but

if complete avoidance is not a *practicable alternative*, then the following specific lake use restrictions will apply:

4.1 For areas identified in the 1998 Shallow Water Fish Habitat Survey (SWFHS) as having stable sand, gravel or cobble substrates on Lake James:

LAKE USE RESTRICTIONS – No boat ramps except those required for Public Recreation, no excavation and no Commercial Marina or Residential Marina Facilities. Construction within these areas may have specific mitigation requirements imposed by the federal, state or local resource agencies. Shoreline stabilization within the Project Boundaries must adhere to the Shoreline Stabilization Technique Selection Process.

4.2 For areas identified in the SWFHS as having stable sand, gravel or cobble substrates on all other Catawba-Wateree lakes:

LAKE USE RESTRICTIONS – No boat ramps except those required for Public Recreation and no excavation. Construction within these areas may have specific mitigation requirements imposed by the federal, state or local resource agencies. Shoreline stabilization within the Project Boundaries must adhere to the Shoreline Stabilization Technique Selection Process.

5.0 Commercial Marina (*Note 3*) – Project lands and waters where boats can be launched, retrieved or moored, **and** where provisions for food services, convenience retailing such as petroleum sales, wet and dry storage of watercraft and other activities customarily associated with marinas, private recreation areas and yacht clubs take place.

LAKE USE RESTRICTIONS – Per the SMG- New Commercial Marina facilities will not be authorized in areas within a half-mile radius of an existing Commercial Marina facility nor areas where more than fifty percent of the shoreline within a half-mile radius is residentially developed. (*Note: This does not preclude expansion of existing facilities identified as True Public Marinas (TPM). TPMs provide public access similar to Public Recreation Facilities and therefore, expansion of existing TPMs may be exempted from adhering to certain requirements limiting expansion of existing commercial facilities.*)

6.0 Residential Marina (*Note 3*) – 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:

6.1 Multi-family dwellings (e.g., apartments, townhouses, condominiums).

6.2 Long-term campgrounds (typically those that lease campsites for more than 14 consecutive days).

6.3 Subdivision access lots that provide boating access for owners of any residential lots that don't have project frontage.

LAKE USE RESTRICTIONS – No Commercial Marina Facilities.

7.0 **Residential** (*Note 3*) – Project lands and waters occupied by private facilities for project-front landowners, none of which can have multi-family dwellings. This classification may include, among other things, piers, boathouses, boatshelters, boat docks, floats, and boat ramps.

LAKE USE RESTRICTIONS – No Commercial Marina or new Residential Marina Facilities.

8.0 **Business/Industrial** – Project lands and waters that are typically used by private businesses but which have little to no effect on boating. Examples include but are not limited to, business staging areas, shoreline associated with manufacturing operations, golf courses, law enforcement facilities, sand mining operations, etc.

LAKE USE RESTRICTIONS – No facilities that have an appreciable effect on boating (e.g., No marina facilities).

9.0 **Project Operations** (*Note 2*) – Project lands and waters associated with hydro power production including but not limited to- dams, dikes, powerhouses and other hydro plant properties. **Downstream Clear Zones** (DCZ) are also part of this classification and they include project lands and waters immediately downstream of all operating hydro stations that are potentially subject to rapid and significant variations in flow rates based on plant operations. As a minimum, DCZs will extend 1000 ft downstream from the dam, to the downstream edge of the hydro plant property or to a bridge crossing that is within 2500 ft of the dam, whichever provides for a greater distance. DCZs may extend beyond this minimum downstream length where deemed necessary by Duke Energy. DCZs are identified on the SMP maps by cross-hatches. (Note that DCZs are not established in downstream areas that are outside the Project Boundaries (e.g., regulated river reaches below the hydro plant property boundary at Lake James, Lake Hickory, Lake Wylie and Lake Wateree) or areas below retired hydro stations (i.e., Gunpowder II, Rink Dam, Icard Dam).

LAKE USE RESTRICTIONS – No new or expanded Residential Marina, Commercial Marina or Residential Facilities. (*Note: Any existing facilities previously approved by DE-LS within a DCZ will be considered for potential rebuild applications, provided that no other practicable alternative exists.*)

10.0 **Public Recreation** (*Note 3*) – Project lands and waters occupied by facilities supporting various public recreational amenities. Examples of the public recreation classification include Duke-owned Project Recreation Sites, and state, district, county and city parks that adjoin the Project Boundaries.

LAKE USE RESTRICTIONS – No non-project uses, except Public Infrastructure. **(***Note: Any lake use that is necessary to maintain or enhance the public recreation*

facilities is considered a project use, including public recreation facilities that may be provided by commercial vendors at Duke-owned Project Recreation Sites or state, district, county or city parks.)

11.0 Public Infrastructure (*Note 2*) – Project lands and waters occupied by public, non-recreational facilities supporting regional needs. This type of facility may include but is not limited to- overhead electric transmission line corridors; submarine utility line corridors (water, sewer, gasoline, natural gas, oil, phone, electric, etc.); regional power generation facilities; rights-of-way for public bridges, causeways, roads, water intakes, effluent discharges, etc. Public infrastructure applicants/permittees normally have the power of eminent domain for their specific requested lake use.

LAKE USE RESTRICTIONS – No new or expanded Residential Marina, Commercial Marina or Residential Facilities. (*Note: Any existing facilities previously approved by DE-LS within the Public Infrastructure right-of-way will be considered for potential rebuild applications, provided that no other practicable alternative exists.*)

Notes

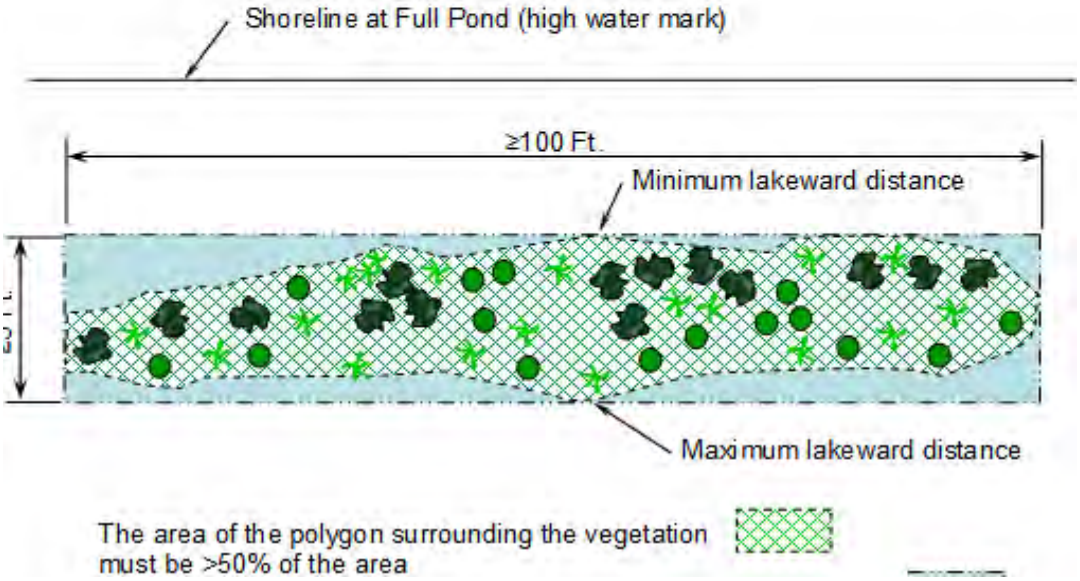
1. Public-need projects where the applicant has the power of eminent domain can be exempted from the listed lake use restrictions provided there is no other acceptable alternative (similar to practicable alternative, except it allows more consideration for economics of alternatives and desires of the applicant). Also note that the shoreline classifications and associated lake use restrictions are considered to generally apply to the Project Boundaries line and the area extending lakeward and perpendicular to the Project Boundaries line including the shoreline for a minimum distance of one-third the cove width. Where restrictive classifications (e.g., Environmental, Natural, Impact Minimization Zones, etc.) wrap around the heads of coves, the lake use restrictions will also apply to the entire cove width in the wrapped area.
2. At times, lake use permit applicants will be required to pursue practicable alternatives to their desired application to avoid impacting important hydro project values. An alternative is not considered practicable if choosing it over the desired option would result in any of the following:
   a. Violation of any applicable permitting criteria or lake use restriction.
   b. Requiring the applicant to dredge the lake bed in order to use the requested facility, whereas dredging would not be required if some allowance was made for crossing into the restricted area.
   c. Modification of the desired facility to the point that the resulting structure would be of very limited usefulness.
   d. Elimination of the desired type of lake access.
3. Final SMP maps include an Existing Use and Future Use classification for the Commercial Marina, Residential Marina, Residential and Public Recreation classifications. The appropriate Future Use classification is applied to all undeveloped shoreline not included in one of the Existing Use classifications.
4. Cultural resource data is included in a data layer that is not visible in the SMP maps provided to entities outside the parties to the Cultural Resources Programmatic

Agreement (PA) developed as part of the 2001 SMP Update. This is necessary because of the sensitive nature of the data and the need to protect the integrity of these sites as required by the PA between the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation (ACHP) and the North Carolina and South Carolina State Historic Preservation Offices (SHPOs). Lake use permitting activities not specifically exempted in the PA that may potentially impact these sites require consultation with the appropriate SHPO. Lake use permitting activities may have additional mitigation requirements or the activity may not be allowed.

Figure 1

ENVIRONMENTAL CLASSIFICATION EXAMPLE

Application of the Environmental Criteria to a Theoretical Stand of Vegetation Inside the Project Boundaries



Appendix C - Shoreline Management Guidelines

The purpose of these Shoreline Management Guidelines is to provide detailed procedures and criteria to regulate activities within reservoirs managed by Duke Energy. The objectives of these guidelines are:

- To protect Duke Energy's power generation interests on these reservoirs;
- To protect and enhance the scenic, cultural, environmental, public safety and public recreational values of the reservoirs; and
- To meet Federal regulatory requirements.

Any occupancy or use of Project lands and waters within the Project Boundaries of FERC-licensed reservoirs or Duke Energy-owned land within or adjoining the reservoir boundaries requires prior written authorization by Duke Energy. Duke Energy-Lake Services (DE-LS) is responsible for the continuous monitoring of activities within the boundaries of Duke Energy reservoirs to ensure activities are consistent with established company policies and license requirements. These guidelines provide permitting criteria and procedures covering the following six programs.

- MARINA FACILITIES PROGRAM (Section 1)
- CONVEYANCE PROGRAM (Section 2)
- EXCAVATION PROGRAM (Section 3)
- PRIVATE FACILITIES PROGRAM (Section 4)
- SHORELINE STABILIZATION PROGRAM (Section 5)
- MISCELLANEOUS RESERVOIR USES PROGRAM (Section 6)

This document also contains general policies that are not lake-specific (Section 7) and vegetation management requirements (Section 8).

The policies and requirements described in this document supersede those of all similar, previous documents including:

- Duke Power Shoreline Management Guidelines dated June 1, 1996, (including color and black/white versions);
- Duke Power Shoreline Management Guidelines dated January 31, 1994, and October 1, 1994; and
- Undated Duke Power brochures entitled, "Living With Our Lakes" and "Safe and Attractive Lakes Are Everyone's Job."

3-Step Review Process for All Lake Use Permit Activity Requests

DE-LS staff uses a 3-step review process for all lake use permit activity requests. Each request is evaluated based on review of the applicable Lake Use Policy Statements, the SMP maps (where applicable) and associated lake use restrictions, and compliance with the DE-LS Shoreline Management Guidelines.

Lake Use Policy Statements (LUPS) – The LUPS delineate the types of access and activities that may be allowed on all reservoirs owned or managed by DE-LS based on license requirements (for all licensed hydro reservoirs); federal, state, and/or local regulations; and specific business management objectives. These policy statements cover all reservoirs owned or managed by Duke Energy including those in the Catawba-Wateree system. This fact, coupled with the strategic business sensitivity of these statements, requires that these documents remain internal to DE-LS. Specific license or other regulatory requirements that are also a part of these policies are publicly available.

The LUPS allow for review of four basic types of lake access: 1) Private Access; 2) Public Recreational Access; 3) Public Infrastructure Access; and 4) Business/Industrial Access on the lakes with existing private and business development (Lake James, Lake Rhodhiss, Lake Hickory, Lookout Shoals Lake, Lake Norman, Mountain Island Lake, Lake Wylie, Fishing Creek Reservoir, Cedar Creek Reservoir, and Lake Wateree). Public infrastructure and business/industrial access will be allowed in accordance with the FERC's Standard Land Use

articles included in the license for the Catawba-Wateree. DE-LS will not authorize any additional private access on Great Falls Reservoir, but public recreational access will be allowed as required to meet the terms of the new FERC licenses.

Shoreline Management Plan (SMP) – The SMP is a set of maps showing various types and uses of the shoreline including areas protected for environmental or habitat values, areas of existing development, and areas of potential development. The SMP also includes lake use restrictions associated with the important shoreline characteristics. The SMP and associated lake use restrictions were developed in consultation with wildlife resource agencies and other stakeholders. The SMP is a tool that can be used by DE-LS, the resource management agencies, the FERC, and others for review of requests for use of the Project and its resources.

Shoreline Management Guidelines (SMG) – The SMG are a set of detailed procedures and criteria that regulate activities within reservoirs owned or managed by DE-LS. The development of these guidelines for permitting activities within the Project Boundaries is required by Duke Energy's FERC license in its Standard Land Use article. DE-LS reserves the right to make minor alterations to these guidelines without public notice, resource agency, or FERC review to ensure permitting flexibility in the continuous monitoring and regulation of lake use permitting activities. DE-LS expects to make major revisions to the SMG periodically with input from resource agencies, local governments, and other interested stakeholders using a stakeholder team. DE-LS will convene this stakeholder team prior to making major revisions to the SMG. Additionally, the FERC may order modifications to the guidelines as provided for in the FERC's Standard Land Use article in new licenses.

The 3-step review process (LUPS>SMP>SMG) includes LUPS consultation to ensure the proposed activity is allowed on the subject reservoir. It includes a review of the SMP to ensure the proposal is allowed along a general portion of the reservoir shoreline and is consistent with the lake use restrictions associated with each shoreline classification for that part of the reservoir. It also includes a review of the SMG along with an assessment of the specific characteristics of the site before allowing any activity to be permitted. In summary, the 3-step review process

includes policy considerations, reservoir-specific classifications and characteristics, and finally, site-specific classifications and characteristics to ensure all activities that are permitted will be consistent with the purposes of the LUPS, SMP, and SMG.

Archaeological and Historical Resources

DE-LS has developed guidelines to protect known and unknown archaeological and historic resources that may be affected by the implementation of the SMG. For purposes of implementing these SMG, the Eastern Band of Cherokee Indians (EBCI) Tribal Historic Preservation Office (THPO) and the Catawba Indian Nation (CIN) THPO have the same consultation status as the State Historic Preservation Office (SHPO) in both North Carolina and South Carolina. In the event that an applicant discovers historic or archaeological resources during construction of an approved activity, the applicant must stop work immediately and contact DE-LS. In the event that anyone discovers a potential site of archaeological or historic significance including a gravesite within the Project, the individual must immediately notify DE-LS. DE-LS encourages anyone who witnesses persons collecting artifacts 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 activities identified in the Cultural Resource Programmatic Agreement (CRPA) developed as part of the Catawba-Wateree SMP as non-exempt activities within the Project Boundaries of the Catawba-Wateree Project must consult with the applicable THPO. A separate form (available from DE-LS) and any supporting information must be submitted to the THPO for review and consultation.

Evaluation Process for Lake Use Permit Requests

For FERC-licensed lakes, there are two basic types of lake uses: *Project uses* and *Non-project uses* (see Glossary). Project uses are essentially those lake uses that are required to safely operate/maintain project structures (e.g., dam, powerhouse, substation, and flow control

structures) or that are required to comply with the license (e.g., construction of license-required public recreation areas or license-required wildlife enhancements). All other lake uses are considered Non-project uses. Project uses take priority over Non-project uses and, where conflicts between the two types arise, non-project uses will normally have to be modified or possibly eliminated to ensure the hydro project can be safely operated and maintained in accordance with the FERC license. In addition, per the FERC's policy, the public should be given the maximum practicable access to project lands and waters and the FERC will not allow private interests to override the public's right to use the FERC project area.

Considering the above facts and the significant existing and growing development along these lakes' shorelines, DE-LS must remain as objective as possible during the application review process, particularly for non-project use requests, to ensure fairness to applicants and to meet the objectives stated in the General Section. DE-LS therefore handles requests for non-project uses somewhat differently from project uses as defined in the general process descriptions below.

Evaluation Process for Non-project Uses

The evaluation process used by DE-LS to review a requested non-project use generally consists of the 11 steps described in this section (Figure 1). The exact order of these steps and the information necessary will vary somewhat between the six permitting programs designed primarily for non-project uses (i.e., Private Facilities Program, Shoreline Stabilization Program, Excavation Program, Marina Facilities Program, Conveyance Program, and Miscellaneous Reservoir Uses Program).

NOTE FOR COMBINATIONS OF ACTIVITIES: Sometimes lake use permit requests will involve combinations of two or more activities. DE-LS requires applicants to submit complete applications for all activities requested. These multiple activity requests will be handled by combining activities within the predominant program they support and utilizing the applicable individual activity permit forms as components of the complete application. For example, suppose an applicant wanted to construct a dock along the shoreline of his/her individual project-

front lot but also needed to excavate a boating access channel and stabilize his/her shoreline with rip-rap in order to use and maintain the dock. The applicant would need to complete and submit a Private Facilities application (for the dock) with an Excavation application and a Shoreline Stabilization application attached as components of the overall application package. Submittal of these applications at the same time allows DE-LS and any reviewing agencies to evaluate potential activity impacts cumulatively, saves processing time, and also minimizes the chance that one of the proposed activities could be approved, but a potential necessary supporting activity (e.g., the excavation work) would not be approved at a later date. The DE-LS Fee Schedule includes fee reductions for certain combinations of applications to foster this prior planning by applicants.

NOTE FOR ALL NON-PROJECT USE APPLICANTS: DE-LS is neither the advocate nor the adversary for non-project use applications. The applicant, not DE-LS or any designated contractor of DE-LS is entirely responsible for negotiating the application process.

STEP 1: Request Initiation

The applicant initiates the request by contacting the DE-LS Office and providing the necessary basic information (e.g., applicant's name, address, phone number, lake, county, city name, subdivision name, lot number, type of lake use desired, intended users). (Note: Requests for conducting preliminary permitting reviews will be handled strictly by the Process for Conducting Preliminary Reviews of Shoreline Tracts for Lake Use Permitting Feasibility.)

STEP 2: Lake Use Policy Review

DE-LS reviews the Lake Use Policy Statements to determine if the proposed activity is allowed on the subject lake. The Lake Use Policy Statements provide general guidance on development within and access to lakes used or controlled by Duke Energy, including identification of activities that are/are not allowed on given lakes. (NOTE: If the proposed activity is not allowed, the applicant will receive written documentation denying the request.)

STEP 3: Applicant Completes Application Form(s) and Consultation

Provided the proposed activity is not denied in Step 2, the applicant is forwarded the appropriate DE-LS application form(s) to be completed and returned to DE-LS along with a check for any applicable fees and Habitat Enhancement Fund payments and security deposits (if applicable). Application forms for any non-Duke Energy permits that are required must be obtained from the applicable permitting authority. Some of the permitting programs (e.g., Marina Facilities, Conveyance, and Excavation) normally require consultation with local, state, and federal agencies and applicants may be required to have a Draft Applicant Prepared Environmental Assessment (DAPEA) completed before DE-LS will accept their application. As a minimum, all Marina Facilities, Conveyance, and Excavation applicants are required to complete certain parts of the DE-LS application form(s) and obtain a release from DE-LS before beginning the required agency consultation process. Applicants for activities requiring a DAPEA are also required to use a contractor, approved by DE-LS, to prepare the DAPEA before submitting the application package to DE-LS. Applicants will be required to pay for the services provided by the approved DAPEA contractor in addition to any application filing fee(s), fund payment(s), and security deposit(s).

STEP 4: Shoreline Management Plan Review

DE-LS reviews the Shoreline Management Plan (SMP) (if applicable) to determine if the proposed activity is consistent with the Existing or Future Use Classification for that part of the lake. As it pertains to these guidelines, this plan is presently only in place for lakes on the Catawba-Wateree Project. An on-site meeting between a DE-LS Representative and the applicant and/or applicant's contractor will normally be included in this step. (NOTE: If the proposed activity doesn't comply with the SMP and the applicant will not/cannot modify the request to gain compliance, the applicant will receive written documentation denying the request and the fees, fund payments, and security deposits will be returned.)

STEP 5: Shoreline Management Guidelines Review

DE-LS conducts a review of the SMG to determine if the proposed activity complies with the current guidelines. (NOTE: If the proposed activity does not comply with the SMG and the applicant will not/cannot modify the request to gain compliance, the applicant will receive written documentation denying the request and the fees, fund payments, and security deposits will be returned.)

STEP 6: Lake Services Completes Application Review

DE-LS accepts the completed application and any applicable fees, fund payments, and security deposits from the applicant. DE-LS reviews the application for correctness of information to ensure all the proper permits and authorizations have been obtained from any required local, state, or federal agencies and verify that all permitting and operational issues have been resolved. An on-site meeting between a DE-LS Representative and the applicant and/or applicant's contractor will almost always occur with or before this step. (Note: DE-LS will not accept applications that are incomplete.)

DE-LS returns the application to the applicant for any necessary corrections or modifications. DE-LS will only proceed to Step 7 when the following requirements have been satisfied:

- The application is correctly completed and includes all the necessary documentation.
- The "Applicant's Agreement Letter" is signed.
- The proposed use fully complies with the LUPS, the SMP (if applicable), and the SMG.
- All issues raised during the agency consultation phase have been resolved or otherwise satisfactorily addressed through a significant good-faith effort by the applicant (as determined by DE-LS in its sole discretion), and all required non-Duke Energy permits are in-hand.
- There are no unresolved operational concerns (as determined by DE-LS in its sole discretion).
- DE-LS agrees with results of any EA.

- The applicable fees, fund payments, and security deposits have been received. (Note: In addition to the standard fees and deposits, the applicant is also expected to arrange and pay for the cost of any studies or other requirements necessary to fully resolve operational or permitting issues.)

- Any required reviews (as determined by DE-LS in its sole discretion) by Duke Energy's Law Department have been completed.

STEP 7: FERC Approval Requested

Once Steps 1 - 6 are complete, Duke Energy files the completed application with the FERC (if applicable). The FERC review typically takes several months (two months minimum) and usually includes a public notice period (published in the Federal Register, on the FERC website, and the Legal section of local newspapers) in which the general public may submit comments to the FERC either favoring or opposing application approval. The FERC may issue Additional Information Requests to Duke Energy to aid in application review and DE-LS will require the applicant to provide DE-LS with the necessary information. The FERC review typically culminates with an order or letter from the FERC to Duke Energy authorizing the company to approve the request as-filed, authorizing approval with specified conditions, or directing Duke Energy to deny the request. (NOTE: If the lake use is denied, the applicant will receive written documentation from DE-LS, including a copy of the FERC order. Any security deposits will be returned, but fees will not be returned).

STEP 8: Issuance of Permit

Once a FERC approval order or letter (if applicable) is received, DE-LS provides the applicant with two copies of the users' agreement, lease, or easement document to be executed, notarized (if applicable), and returned to DE-LS along with any required additional fees. Some activities also require the applicant to provide DE-LS with proof of insurance naming Duke Energy as additionally insured at this point. Once the required documents and fees are received by DE-LS and the above steps are complete, DE-LS will provide the applicant with a copy of any FERC approval order/letter and written authorization (e.g., approved application form) to proceed with

the proposed activity. Lease and easement documents must also be recorded at the local Register of Deeds office. Duke Energy will handle this recording and will forward the applicant a copy of the fully executed and recorded lease/easement under separate cover. (Note: In addition to the standard fees and deposits, the applicant is also expected to pay for the cost of any additional studies or license requirements imposed upon Duke Energy as a result of the application.)

STEP 9: Compliance Monitoring

DE-LS inspects the activity to monitor compliance. Inspections will be conducted after construction is complete and periodic inspections of the work in-progress will generally be conducted for larger projects. (NOTE: The applicant must notify DE-LS when construction is initiated and completed.) Provided no violations occur and the activity is conducted in accordance with the approved application, the DE-LS Representative will approve the final structure or activity and attach any applicable permitting tags. If a violation is detected, the DE-LS Representative 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 DE-LS.

STEP 10: Application File Close-out

DE-LS closes out the application file. Applicable data is entered on the application form and into the database and documents are filed. Security deposits are returned, provided no violations occurred.

STEP 11: Operating Programs

The approved facility may then be subject to one or more DE-LS operating programs. These programs are designed to ensure that long-term facility operation does not conflict with DE-LS objectives. These programs may include, but are not limited to, periodic compliance inspections, annual user fee collection, and identification of structures requiring repair.

Section 1 – Marina Facilities Program

A. General

All parties desiring to construct, expand, or rebuild a marina facility (see Glossary for definitions of *Commercial Marina, Residential Marina*, and *True Public Marina* facilities; also see *SMP Classifications/Lake Use Restrictions Document*) within the Project Boundaries of a Duke Energy lake must first contact DE-LS and obtain written authorization prior to beginning any activity/construction. Applications that include resource agency consultation and an approval order from the FERC may also be required for certain activities. DE-LS will require the applicant to enter into a lease or users' agreement/permit to ensure that long-term operation of the marina facility does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Marina Facilities. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities.*)

B. Criteria for Commercial Marina Facilities

(e.g., public marinas, yacht clubs, restaurants, and short-term campgrounds [≤ 14 days])

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Proximity to Existing Facilities – New Commercial Marina Facilities will not be authorized in areas within a half-mile radius of an existing Commercial Marina Facility or areas where more than fifty percent of the shoreline within a half-mile radius is identified in the SMP as an Existing Residential classification (Figure 1B-1).

3. 50-ft Environmental Offset – New or expanded Commercial Marina Facilities may not be constructed within the 50-ft Environmental Offset (Figure 1B-2) associated with an Environmental classification identified in the SMP unless the permitted facility currently exists within the offset.

4. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. Also, all necessary governmental permits or approvals, a FERC order (if applicable), and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries or on any Duke Energy-owned peripheral strip.

5. Length of Facilities – New, expanded, or rebuilt facilities shall not extend more than one-third the distance to the opposite shoreline as measured from the full pond contour or extend more than 120 ft waterward of the full pond contour, whichever is more limiting

(Figure 1B-3). Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft. (*Exception: Facilities operated as True Public Marinas may be considered for a maximum length of 200 ft, provided the facility meets all other requirements and continues to be operated as a True Public Marina.*)

6. Waste Disposal Facilities Required – Publicly available restrooms and marine pump-out facilities must be provided as a minimum to be considered a True Public Marina.

7. Mooring Requirements – Facilities shall not use mooring buoys or similar detached structures to independently moor vessels. Mooring locations must be limited to areas within slips and along the outer edges of piers/docks as end ties.

8. Flotation Materials – Flotation for all facilities shall be of materials manufactured specifically for marine use. Materials must not lose significant buoyancy if punctured, must not generally be subject to damage by animals, and must resist breaking apart under a broad range of wave energies. Uncoated, beaded polystyrene will not be permitted for any new construction or as replacement for existing facilities. Reuse of plastic, metal, or other previously used drums or containers for encasement or flotation purposes is prohibited. Existing flotation on previously approved structures is authorized until it has severely deteriorated and is no longer serviceable, at which time it must be replaced with approved flotation.

9. Reflectors – Reflectors or reflective tape must be placed and maintained by the applicant on the two furthermost corners of the structure that extend into the water and along the sides of the structure at reasonable intervals from the end back toward the shore.

10. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

11. Minimum Elevation of Decking – The top of all fixed pier decking (not including handrails) must be at least one vertical foot above the full pond elevation. Small stair-stepped landings may be constructed on the sides of stationary piers to facilitate watercraft boarding and entry.

12. Enclosure of Facilities – The sides of covered slips are not to be enclosed. Handrails may be put on for safety, but must not be enclosed.

13. Non-Allowable Non-Boating Structures – The addition of facilities not related to water access is prohibited except for gas docks or docks associated with marine sanitation

device pump-out stations. Consideration may be given for small facilities (e.g., benches and picnic tables), provided they are identified in the application.

14. Allowable Non-Boating Structures – True Public Marina Facilities may include fishing piers/platforms/boardwalks or other similar non-boating structures. The extraneous facilities can only be used for the purpose identified in the facility application. These facilities will be assessed a single user fee, provided the facility does not provide boating access.

15. Narrow Coves – Expanding Commercial Marina Facilities (except for waivers allowed for True Public Marina Facilities) will not be allowed in narrow coves on the cove-head side of the point where the cove narrows to 300 ft or less in width (Figure 1B-4).

16. Cut-Off Areas – New or expanded Commercial Marina Facilities may be significantly restricted in number of boat launching/docking/mooring locations or completely prohibited within *cut-off areas* (see Glossary), depending on the available boating capacity within the cut-off area. The applicant will be required to evaluate boating capacity as part of the Commercial Marina Facility application for facilities within cut-off areas.

17. Electric Utility Line Rights-of-Way – New or expanded Commercial Marina Facilities including the Project area covered by the lakebed lease/user's agreement/permit will not be authorized within the right-of-way limits of any existing or planned overhead, electricity-carrying utility line.

18. Location of Boat Ramps – New boat ramps for Commercial Marina Facility use shall not be located in the backs of coves if any portion of the cove between the proposed boat ramp location and the main channel is 300 ft or less in width (Figure 1B-4).

19. Maximum Facility Size – New or expanded Commercial Marina Facilities may be considered for a maximum number of 200 boat slips/docking/mooring locations. (*Exception: Commercial Marina Facilities designated as True Public Marinas may be considered for more than 200 boat slips/docking/mooring locations*.)

20. Facility Amenities Application Details – All Commercial Marina Facility boat launching/docking/mooring locations, whether in confined slips alongside the outermost slip fingers or at any other location, must be specified in the application along with the maximum launching/docking/mooring capacity for the facility. Facilities that include a boat ramp must also specify the number of car/trailer parking spaces that will be available for boat ramp users and evidence that supports the rate of use of the ramp. Facilities that include dry storage for boats must also specify the number of boats the storage area can hold plus the number of parking spaces for dry storage users and evidence that supports the rate of use of the storage area access.

21. Low Impact Design – Low Impact Development practices for storm water management shall be incorporated to the maximum practicable extent into the design of any boat ramp facility located within the Project Boundaries.

22. Capacity of Slips – Unless a boat slip or docking/mooring location is specifically designed to accommodate additional watercraft (e.g., double boat slip) and the capacity is specified in the application, only one watercraft at a time shall be moored within a boat slip or docking/mooring location.

23. Floats for Personal Watercraft and Boatlifts – Floats for docking of personal watercraft (PWC) or boatlifts may be added to a previously permitted Commercial Marina Facility without additional written approval from Duke Energy, provided that:

    a. Any applicable Non-Duke Energy permits or approvals have been received;

    b. The PWC floats or boatlifts are installed within the confines of a slip in the previously approved facility;

    c. The addition of the PWC floats or boatlifts do not increase the total number of watercraft that the facility is designed to accommodate as identified in the application; or

    d. The facility owner sends a letter to DE-LS documenting that the above requirements are true, along with an attached drawing of the facility that identifies the locations of the added PWC floats or boatlifts.

24. Lease/Users' Agreement – All new or expanded Commercial Marina Facility applicants are required to enter into a lease/users' agreement/permit for the FERC Project area that the facility will occupy. The Project area covered by the lease/users' agreement/permit must meet the following basic criteria:

    a. The area cannot include structures permitted under the Private Facilities Program;

    b. The area must include minimum clear maneuvering distances surrounding the boating structures of twice the slip length on the side of boat ingress and egress and 15 ft from all other sides (Figure 1B-5);

    c. The area cannot extend beyond the mid-point of the cove (Figure 1B-6); and

    d. All moored watercraft must be within the confines of the lease area.

25. Timing of Lease/Users' Agreement – All new, expanded or rebuilt, Commercial Marina Facilities must have an executed lease, permit, or other instrument of conveyance from Duke Energy within 18 months following issuance of a FERC order or within 18 months following receipt of the instrument of conveyance if a FERC order is not required.

26. True Public Marina Expansion – Expansion of existing True Public Marinas may be exempted from adhering to certain requirements limiting expansion of other existing Commercial Marina Facilities. True Public Marinas may be considered for expansion even if:

    a. The facility is behind a point where the cove narrows to 300 ft or less;

    b. The facility expansion would exceed the maximum of 200 boat slips; or

    c. The facility expansion is within the 200 ft setback from the outermost project-front property corners or from any privately owned in holdings. Additionally, an existing Residential Marina Facility may be converted to a Commercial Marina Facility use only if the facility qualifies as a True Public Marina. All expansions are subject to local, state and federal resource agency review.

27. Waste Disposal Facilities – Any proposed new, expanded or rebuilt dry storage facility adjoining the Project Boundaries, Commercial Marina Facility, or Commercial Marina Facility that is renewing or transferring its project area lease/permit must provide a commercially manufactured sanitary marine pump-out system as a regular and customary service if any of the following criteria are met:

    a. The facility will have > 65 docking/mooring/storage spaces for watercraft;

    b. The facility will include gasoline dispensing equipment (other than hand-carried, portable tanks);

    c. The facility will moor/store > 25 watercraft with Marine Sanitation Devices (MSD);

    d. The facility will moor a watercraft that is specifically used to provide cruises to the public where meals are served; or

    e. The facility will moor watercraft that will be used for human habitation. (*Exception: A Commercial Marina Facility may be exempted from the requirement to provide on-site marine pump-out facilities, as a result of items a–c only, if written proof from a state or local agency is provided to document that the facility will not be allowed to dispose of waste collected from watercraft because of state or local regulations*.)

28. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, or any other type of device that could cause any liquid or solid waste to be discharged into the lake. (*Exception: Gasoline dispensing equipment, water supply lines supported by approved pump-out facilities, or facilities for which such devices were specifically approved under a complete, Commercial Marina Facility application post-marked to DE-LS prior to June 1, 1996, are exempted from this requirement.*)

29. Gasoline Dispensing – New, expanded, or rebuilt Commercial Marina Facilities that are approved to dispense gasoline within the Project Boundaries must provide petroleum absorbent materials or similar best available technology at all the slips dedicated/available for gasoline dispensing.

30. Setbacks – All facilities shall be set back along the shoreline at least 200 ft from the outermost project-front property corners of the development, from any privately owned in-holdings that are not part of the proposed commercial facility, and/or according to local government zoning requirements, whichever provides for a greater distance. This setback along the shoreline is determined by creating a 200-ft radius from the property corners on the project-front (Figure 1B-7).

31. Islands – New Commercial Marina Facilities for boat launching/docking/mooring will not be authorized for construction from islands.

32. Water Willow Beds – Applicants are encouraged to avoid activities that could have an adverse impact upon existing water willow beds. Unavoidable impacts should be confined to the sides of water willow beds to minimize disruption of their function as shallow water fish habitat. No floating structures or other extraneous facilities (e.g., gazebos, decks) may be constructed over water willow beds. The width of walkways over water willow beds will be limited to three ft. Removal of water willow for continued lake access may be allowed, but only for the specific and limited area necessary.

33. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application and within the approved *build-out period* (see Glossary). The initial build-out period for Commercial Marina Facilities is 18 months from the date of application approval by DE-LS. A one-year extension may be approved by DE-LS if the applicant files a written request, prior to expiration of the 18-month build-out period, detailing what approved activities have been completed, what approved activities remain to be completed and the reason for the delay, along with any applicable fees (including an extension fee). If during an extension period additional guidelines are imposed, the remaining construction will be required to comply with the additional guidelines to the maximum practicable extent. Failure to construct a facility within the total, approved build-out period with one extension (i.e., 30 months total) will require the applicant to contact all agencies that issued permits and document the originally issued permits are still valid or acquire reissued permits for those that have expired. This will allow the issuance of a second 12-month extension (i.e., 42 months total), which will require payment of a second application filing fee and security deposit, and forfeiture of the original deposit. If the applicant does not complete all activities within this final 12-month extension period, DE-LS will notify the applicant in writing that all approvals have been withdrawn and reauthorization to complete construction of the facilities will require re-entry into the application review and approval process (including, as a minimum, providing a new construction schedule, detailed description of

the facilities to be constructed and the applicable fees and security deposits), and such reauthorization may not be granted. Construction will not be allowed to resume until additional written authorization is received from DE-LS.

34. Applicant – The applicant must be a natural person; a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. The lessee/permittee/grantee must be a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. DE-LS will hold the adjoining property owner fully responsible for the permitted lake use (including maintaining structures in good repair). This responsibility is considered to transfer automatically along with ownership of the adjoining tract. It is therefore the responsibility of the property owner to ensure that authorization for the permitted use and any conveyance documents for facilities within the Project Boundaries or peripheral strip are transferred should there be a change in ownership of the adjoining tract and/or facility.

35. Conversion of Existing Residential Marina Facilities – Existing Residential Marina Facilities shall not be converted to Commercial Marina Facility use except for conversion to a True Public Marina.

36. Conversion of Existing Commercial Marina Facilities – Existing Commercial Marina Facilities may be converted to Residential Marina Facility use, provided the applicant successfully completes the Marina Facilities application process again and pays the applicable fees. All of the Residential Marina Facility criteria must be met and the applicant will also have to sign a new lease/users' agreement/permit that is consistent with the documents required of new Residential Marina Facilities.

C. Criteria for Residential Marina Facilities

(e.g., townhouses, condominiums, apartments, long-term campgrounds [> 14 days], subdivision access lots)

1. Special Rulings – Since not every possible scenario can be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. In addition, all necessary governmental permits or approvals, a FERC order (if applicable) and written authorization from DE-LS must be obtained by

the applicant prior to beginning any activity/construction within the Project Boundaries or on any Duke Energy-owned peripheral strip.

3. Length of Facilities – New, expanded or rebuilt facilities shall not extend more than one-third the distance to the opposite shoreline as measured from the full pond contour or extend more than 120 ft waterward of the full pond contour, whichever is more limiting (Figure 1B-3). Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft.

4. 50-ft Environmental Offset – New Residential Marina Facilities may not be constructed within the 50-ft Environmental Offset (Figure 1B-2) associated with an Environmental classification identified in the SMP.

5. Flotation Materials – Flotation for all facilities shall be of materials manufactured for marine use. Materials must not lose significant buoyancy if punctured, must not generally be subject to damage by animals, and must resist breaking apart under a broad range of wave energies. Uncoated, beaded polystyrene will not be permitted for any new construction or as replacement for existing facilities. Reuse of plastic, metal, or other previously used drums or containers for encasement or flotation purposes is prohibited. Existing flotation on previously approved structures is authorized until it has severely deteriorated and is no longer serviceable, at which time it must be replaced with approved flotation.

6. Reflectors – Reflectors or reflective tape must be placed and maintained by the applicant on the two furthermost corners of the structure that extend into the water and at reasonable intervals along the sides of the structure from the end back toward the shore.

7. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

8. Minimum Elevation of Decking – The top of all fixed pier decking (not including handrails) must be at least one vertical foot above the full pond elevation. Small stair-stepped landings may be constructed on the sides of stationary piers to facilitate watercraft boarding and entry.

9. Enclosed Piers – The sides of piers are not to be enclosed. Handrails may be put on for safety, but must not be enclosed.

10. Non-Water Access Facilities – The addition of facilities not related to water access is prohibited except for docks associated with marine sanitation device pump-out stations.

Consideration may be given for small facilities (e.g., benches, picnic tables), provided they are identified in the application.

11. Common Access Boardwalks – Common access boardwalks are not allowed for Residential Marina Facilities.

12. Narrow Coves – New Residential Marina Facilities will not be allowed in narrow cove areas on the cove-head side of the point where the cove narrows to 300 ft or less in width (Figure 1B-4).

13. Boat Ramps in Coves – New boat ramps for Residential Marina Facility use shall not be located in the backs of coves if any portion of the cove between the proposed boat ramp location and the main channel is 300 ft or less in width (Figure 1B-4).

14. Cut-Off Areas – New Residential Marina Facilities may be significantly restricted in number of boat launching/docking/mooring locations or completely prohibited within *cut-off areas* (see Glossary), depending on the available boating capacity within the cut-off area. The applicant will be required to evaluate boating capacity as part of the Residential Marina Facility application for facilities within cut-off areas.

15. Electric Utility Line Rights-of-Way – New Residential Marina Facilities will not be authorized within the right-of-way limits of any existing or planned overhead, electricity-carrying utility line.

16. Facility Amenities Application Details – All Residential Marina Facility boat launching/docking/mooring locations, whether in confined slips alongside the outer most slip fingers or at any other location, must be specified in the application along with the maximum launching/docking/mooring capacity for the facility. Facilities that include a boat ramp must also specify the number of car/trailer parking spaces that will be available for boat ramp users and evidence that supports the rate of use of the ramp. Facilities that include dry storage for boats must also specify the number of boats the storage area can hold plus the number of parking spaces for dry storage users and evidence that supports the rate of use of the storage area ramp.

(*Exception: A single-slip courtesy dock may be requested, provided the facility is restricted both in the subdivision covenants and the Duke Energy lease/users' agreement/permit to only allow watercraft use for pick-up/drop-off of passengers, pump-out of waste or fueling from hand-carried portable tanks, and specifically prevented from use by mooring unattended watercraft. The courtesy dock will not count against the total number of Residential Marina slips/moorings/docking locations requested.) (**Note**: Specifically assigned refueling slips must have petroleum absorbent materials or similar best available technology at all the slips dedicated/available for gasoline dispensing.*)

17. Capacity of Slips – Unless a boat slip or docking/mooring location is specifically designed to accommodate additional watercraft (e.g., double boat slip) and the capacity is specified in the application, only one watercraft at a time shall be moored within a boat slip or docking/mooring location.

18. Floats for Personal Watercraft and Boatlifts – Floats for docking of PWC or boatlifts may be added to a previously permitted Residential Marina Facility without additional Duke Energy written approval, provided that:

    a. Any applicable Non-Duke Energy permits or approvals have been received;

    b. The PWC floats or boatlifts are installed within the confines of a slip in the previously approved facility;

    c. The addition of the PWC floats or boatlifts do not increase the total number of watercraft that the facility is designed to accommodate as identified in the previously approved application; and

    d. The facility owner sends a letter to DE-LS documenting that the above requirements are true, along with an attached drawing of the facility that identifies the locations of the added PWC floats or boatlifts.

19. Timing of Lease/Users' Agreement – All new, rebuilt or expanded Residential Marina Facilities must have an executed lease, permit or other instrument of conveyance from Duke Energy within 18 months following issuance of a FERC order or within 18 months following receipt of the instrument of conveyance if a FERC order is not required.

20. Lease/Users' Agreement – All new Residential Marina Facility applicants are required to enter into a lease/users' agreement/permit for the FERC Project area that the facility will occupy. The Project area covered by the lease/users' agreement/permit must meet the following basic criteria:

    a. The area cannot include structures permitted under the Private Facilities Program;

    b. The area must include minimum clear maneuvering distances surrounding the boating structures of twice the slip length on the side of boat ingress and egress and 15 ft from all other sides (Figure 1B-5);

    c. The area cannot extend beyond the mid-point of the cove (Figure 1B-6); and

    d. All moored watercraft must be within the confines of the lease area.

21. Waste Disposal Facilities Required – Any proposed new or rebuilt Residential Marina Facility or Residential Marina Facility that is renewing or transferring its Project area

lease/permit must provide on-site sanitation facilities for marine pump-out and/or disposal of waste if any of the following criteria are met:

a. The facility will have > 65 docking/mooring spaces for watercraft;

b. The facility will moor > 25 watercraft with Marine Sanitation Devices (MSD); and

c. The facility will moor watercraft that will be used for human habitation.

(*Exception: A Residential Marina Facility may be exempted from the requirement to provide on-site marine pump-out facilities, as a result of Items a or b only, if written proof from a state or local agency is provided to document that the facility will not be allowed to dispose of waste collected from watercraft because of state or local regulations*.)

22. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, or any other type of device that could cause any liquid or solid waste to be discharged into the lake. (*Exception: Water supply lines supported by approved marine pump-out facilities are exempted from this requirement*.)

23. Gasoline Dispensing – New or rebuilt Residential Marina Facilities that have dedicated slips for boat refueling from single individually-owned containers must provide petroleum absorbent materials or similar best available technology at all the slips dedicated for refueling. On reservoirs that have no Commercial Marina Facilities, all new or rebuilt, Residential Marina Facility slips will be required to provide petroleum absorbent materials or similar best available technology at all slips in the facility.

24. Setbacks – All facilities shall be set back along the shoreline at least 200 ft from the outermost project-front property corners of the development, from any privately owned in-holdings that are not part of the proposed residential development (i.e., the owner will not be a member of the homeowners' association), and/or according to local government zoning requirements, whichever provides for a greater distance. This setback along the shoreline is determined by creating a 200-ft radius from the property corners on the project-front (Figure 1B-7).

25. Covered Boat Slips – No covered boat slips, structural boat covers, or *boat shelters* (see Glossary) will be allowed at Residential Marina Facilities.

26. Islands – New Residential Marina Facilities for boat launching/docking/mooring will not be authorized for construction from islands.

27. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application and within the approved *build-out period* (see Glossary). The initial build-out period for Residential Marina Facilities is eighteen (18) months from the date of application approval by DE-LS. A one-year

extension may be approved by DE-LS if the applicant files a written request, prior to expiration of the 18-month build-out period, detailing what approved activities have been completed, what approved activities remain to be completed, and the reason for the delay, along with any applicable fees (including an extension fee). If during an extension period additional guidelines are imposed, the remaining construction will be required to comply with the additional guidelines to the maximum practicable extent. Failure to construct a facility within the total, approved build-out period with one extension (i.e., 30 months total) will require the applicant to contact all agencies that issued permits and document the originally issued permits are still valid or acquire reissued permits for those that have expired. This will allow the issuance of a second 12-month extension (i.e., 42 months total) which will require payment of a second application filing fee and security deposit, and forfeiture of the original deposit. If the applicant does not complete all activities within this final 12-month extension period, DE-LS will notify the applicant in writing that all approvals have been withdrawn and reauthorization to complete construction of the facilities will require re-entry into the application review and approval process (including, as a minimum, providing a new construction schedule, detailed description of the facilities to be constructed, and the applicable fees and security deposits), and such reauthorization may not be granted. Construction will not be allowed to resume until additional written authorization is received from DE-LS.

28. Applicant – The applicant must be a natural person; a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. The lessee/permittee/grantee must be a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. DE-LS will hold the adjoining property owner fully responsible for the permitted lake use (including maintaining structures in good repair). This responsibility is considered to transfer automatically along with ownership of the adjoining tract. It is therefore the responsibility of the property owner to ensure that authorization for the permitted use and any conveyance documents for facilities within the Project Boundaries or peripheral strip are transferred should there be a change in ownership of the adjoining tract and/or facility.

29. Assigned Slips for Project-Front Lots – A project-front lot may be assigned a slip in the Residential Marina Facility, if the applicant so chooses. The slip for the project-front lot will not increase the total maximum number of Residential Marina slips the applicant may request. The project-front lot will not be considered for an Individual Private Facility, or for a slip in a Common-Use Facility, and the applicant must clearly show this fact on the subdivision plat submitted with the development's Residential Marina Facility application.

30. Reevaluation of Shoreline – Once a Residential Marina Facility application for a development is approved by Duke Energy, the shoreline within the original development cannot be reevaluated for subsequent expansion in number of approved Residential Marina Facility slips. This holds true even if a portion of the original development's shoreline is resold to another developer for another development, or if the original developer did not request the maximum number of Residential Marina Facility slips.

31. Subdivision Access Lots – The proposed Residential Marina Facility must meet the following basic guidance concerning subdivision access lots:

    a. The master plan must show that the lots will be owned in fee by the development homeowners' association when established and any changes to the master plan directly or indirectly impacting the marina facility (e.g., slip eligibility, marina location, configuration), will require refiling the application;

    b. The lots must have at least 100 ft of shoreline suitable for Commercial Marina Facility or Residential Marina Facility use as measured along the Project Boundaries; and

    c. The access lot(s) shall not be located in coves any portion of which is 300 ft or less in width as measured from the proposed access lot location out to the main channel.

    (*Exception: Developments whose original, complete Residential Marina Facilities application was post-marked to Duke Energy before June 1, 1996, may be exempted from any subdivision access lot requirements that were also not met at the time of original application*.)

32. Review of Associated Applications – In a development proposed to provide Residential Marina Facility access, the developer must submit a complete application and receive written confirmation from DE-LS and/or notification that the application has been submitted to Duke Energy's Law Department for preparation in filing with the FERC (if applicable), or a copy of the homeowner's covenants and final recorded subdivision plat approved by the local government planning and zoning office must be submitted acknowledging the location of the planned facilities prior to DE-LS reviewing applications under the Private Facilities, Excavation and Shoreline Stabilization Programs for lake use activities submitted by private individual lot owners.

33. Conversion of Existing Commercial Marina Facilities – Existing Commercial Marina Facilities may be converted to Residential Marina Facility use, provided the applicant successfully completes the Marina Facilities application process again and pays the applicable fees. All of the Residential Marina Facility criteria must be met and the applicant will also be required to sign a new lease/users' agreement/permit consistent with the documents required of new Residential Marina Facilities.

34. Conversion of Existing Residential Marina Facilities – Existing Residential Marina Facilities shall not be converted to Commercial Marina Facility use except for conversion to a True Public Marina.

D. Shoreline Preservation Incentive Program

1. Description of Program – In the interest of preserving undisturbed shoreline to protect wildlife habitat, an incentive program is offered for development projects. The program allows more boat slips than would be allowed under criteria in previous versions of the SMG so long as the applicant preserves and leaves undisturbed at least 20 percent of the shoreline available for boat dock construction. In exchange for preserving this shoreline, the applicant may be allowed the multiple of boat slips/moorings/docking locations for every 100 ft of shoreline preserved as indicated in the table below. These multiples may be increased as also indicated in the table if the preserved shoreline is accompanied with a buffer contiguous with and directly landward of the preserved shoreline. These additional boat slips/moorings/docking locations would be constructed in a multi-slip facility that would serve lots or dwelling units in the subdivision whether or not they front on the water or the Project Boundaries. The total number of slips/moorings/docking locations within the incentive program cannot exceed the total number of off-water lots or dwelling units in the development and must be contiguous with the development that includes the preserved shoreline. The number of slips/moorings/docking locations will be rounded down as part of the incentive program.

Eligible Shoreline Preserved (percent)		**Boatslip Multiple per 100 ft of Shoreline Preserved**		
At Least	But Less Than	With No Buffer	With 50-Ft Buffer	With 150-Ft Buffer
20	25	1.5	2.5	3.5
25	50	2.5	3.5	4.5
50	-	4.5	5.0	6.0

2. Eligible Shoreline – Any shoreline not eligible for lake use permitting activities, such as those classified as Environmental, Natural, Natural Isolated Berm, Bottomland Hardwood Areas, Public Infrastructure, etc., would not be counted in the calculation of shoreline footage eligible for the incentive. The incentive preserved areas are in addition to the areas that will already be protected by one of these classifications.

3. Upland Buffer Incentive – An additional incentive (see table above) may apply if the applicant also preserves in a buffer (between 50 ft and 200 ft) additional land upland and continuous to the preserved shoreline. No additional incentive will be provided for buffers less that 50 ft upland of the Project Boundaries. The incentive multiples for

buffer widths between 50 ft and 200 ft will be interpolated or extrapolated, as appropriate, from the incentive numbers in the above table.

4. Upland Buffer Associated with Protected Shoreline Areas – As an additional incentive to conserve upland habitat, an applicant may agree to preserve lands upland and contiguous with shoreline areas that are already protected through the SMP classifications of Environmental, Natural, Natural Isolated Berm, or Bottomland Hardwood Areas. For every two acres of the applicant's property outside the Project Boundaries preserved and left undisturbed, the applicant becomes eligible for one additional boat slip/docking/mooring location.

5. Alternative Upland Buffer Associated with Protected Shoreline Areas – In lieu of Criteria 4, the applicant may request a maximum of one additional boat slip/docking/mooring location for preserving a buffer of 100 ft in width upland of the Project Boundaries that is contiguous with a protected habitat classification (i.e., Environmental, Natural, Natural Isolated Berm, or Bottomland Hardwood Areas). All preserved land above the Project Boundaries must encompass the entire length along the shoreline of the protected habitat shoreline. The minimum protected shoreline length to be eligible for this additional access is 100 ft. The SMP indicates the lateral extent of any single protected classification(s) along the shoreline that is/are eligible for an additional slip(s)/mooring(s)/docking location(s).

6. Identification of Upland Buffers in Application – To be eligible for the incentive program, the preserved land – buffers associated with preserved shoreline or acreage or buffers preserved upland of an Environmental, Natural, Natural Isolated Berm, or Bottomland Hardwood Areas classifications – must be specifically identified in the application and must:

   a. Include adequate protections in the form of a permanent conservation easement or conservation-type agreement, identified in the protective covenants of the development and managed by the homeowner's/boat slip owner's association or other conservation entity approved by DE-LS;

   b. Be identified by survey stamped by a Registered Land Surveyor, provided by the applicant and included in the application that is also recorded in the county where the property is located;

   c. Be specifically addressed in the application along with a verifiable calculation of the preserved shoreline and the associated slip(s)/mooring(s)/docking location(s);

   d. Be provided under the incentive program along with a master plan of the development including all project-front lots and the location of the multi-slip marina facility;

e. Be in addition to any shoreline within a protected classification as identified in the SMP; and

f. Be in contiguous segments of not less than 800 ft for developments with more than 800 total ft of preserved shoreline.

7. Shoreline Stabilization – There may be instances where the shoreline to be preserved is subject to significant erosion that could be detrimental to the purpose of preserving riparian habitat. In these cases, DE-LS, in consultation with the appropriate wildlife resource agency, will determine whether the habitat values of this shoreline would benefit from habitat friendly stabilization, such as bioengineering or enhanced rip-rap, which then may be permitted on a case by case basis.

8. Since the intent is to preserve important shoreline habitat areas, DE-LS will make the final eligibility determinations on a case-by-case basis. (*Note: Shoreline areas that are not developable for multi-slip marina uses [e.g., their SMP classification, if applicable, does not allow Commercial Marina Facility or Residential Marina Facility use] are not eligible to accommodate the Residential Marina Facility although their shoreline will be used in the calculation for preservation and additional off-water access. Also note that the above limitations describe the maximum number of slips/moorings/docking locations that may be requested. Site-specific conditions may further restrict, or even eliminate, the number of boat slips/docking/mooring locations that can be considered for approval.*)

E. Criteria for Rebuilds of Existing, Previously Approved, Marina Facilities

(See Glossary to note difference between a *Facility Rebuild* and *Facility Emergency Repair, Facility Expansion*, and *Facility Maintenance.*)

1. Special Rulings – Since not every possible scenario can be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. In addition, all necessary governmental permits or approvals, a FERC order (if applicable) and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries.

3. Facility Rebuilds – Applications for *facility rebuilds* (see Glossary) of existing Marina Facilities must conform to the SMG that are in place for new or expanded facilities at the time of the rebuild application. The following waivers may be considered:

   a. Any criterion that is specifically stated as being exclusively for new and/or expanded facilities;

b. Any criterion that is specifically exempted according to a stated exception;

c. The 200-ft setback requirement, if the existing structure was initially approved before January 31, 1994, and the rebuilt structure does not further reduce the setback provided;

d. The subdivision access lot and minimum project area lease/user's agreement/permit requirements, if necessary to prevent creating non-compliances for other, previously permitted facilities;

e. The requirement for each slip in the facility to be attributed to 100 ft or more of shoreline suitable for Residential Marina Facility or Commercial Marina Facility use;

f. The need for the applicant to own the adjoining property in fee simple if the facility was originally permitted without such ownership and the applicant has made a substantial, good-faith effort to acquire fee simple to a subdivision access lot. (***Note**: The applicant may be required to post a bond to guarantee performance of lease/permit requirements.*); and

g. The need to consult with agencies that do not issue a permit of their own, provided no excavation is needed, or consultation is not otherwise required (e.g., by the Cultural Resources Programmatic Agreement or similar documents).

(Exception: True Public Marina Facilities will be considered for rebuild even if the rebuilt facility or a portion of the facility cannot comply with the current guidelines. If compliance with the current guidelines is not possible, then the replacement facility must not deviate further from the current guidelines than the existing facility. This exception is provided only to True Public Marina Facilities.)

4. Rebuilds of Multiple-Slip Facilities – Existing multiple-slip facilities, originally approved under the Private Facilities Program (i.e., community use piers), may be rebuilt under the Marina Facilities Program as a Residential Marina Facility, although its use does not conform to the existing guidelines or shoreline classification. As a general rule, applications for rebuilds (see Glossary to note difference from *Facility Expansion*) of these existing multiple-slip private facilities are subject to the same permitting criteria and review processes as new Marina Facilities. (*Note: Such applications will need to be reviewed by all the required consulting agencies, since their original approval was not reviewed and they will now involve conveyance by lease/user's agreement/permit of Project property*.) The following may be considered:

a. Waiver of the 200-ft setback requirement, provided that the existing structure was initially approved before January 31, 1994, and the rebuilt structure does not further reduce the setback provided.

b. Waiver of the *minimum lease/easement area* requirements (see Glossary) where there would be unavoidable impacts to existing permitted structures.

c. Waiver of the requirement that there be 100 ft of developable shoreline, as defined in the SMP for private facilities or Marina Facilities, for each slip in the facility.

(*Note: Existing facilities that exceed 120 ft in length or the one-third cover width limitation must be rebuilt to meet these criteria to be considered for waivers a–c.*)

5. Lease/Users' Agreement – Applicants requesting to rebuild their facilities must enter into a new lease/users' agreement/permit with new terms and conditions (including increased user fees for the entire facility even if only a portion is rebuilt) to comply with the current requirements.

6. Removal of Old Facilities Prior to Rebuilds – Applicants requesting to rebuild their facility must ensure that all structures being replaced are completely removed from the Project Boundaries and the Duke Energy-owned peripheral strip prior to starting any new construction.

7. Electric Utility Line Rights-of-Way – Rebuilds of Marina Facilities within the right-of-way limits of any existing or planned overhead, electricity-carrying utility line may be considered for approval, provided that:

a. The structure and the Project area covered by the lakebed lease/users' agreement/permit will be removed from within the right-of-way limits to the maximum practicable extent;

b. Neither the numbers of structures nor the lakebed area under lease/user's agreement/permit within the right-of-way will be increased;

c. All necessary design limitations (e.g., no roofs) have been incorporated and a special lease/user's agreement/permit has been signed by the applicant; and

d. The applicant receives written approval from the utility line owner.

F. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree Project) is a privilege that can only be granted with

authorization from the Licensee. Duke Energy supports use of the project lands and waters for a variety of activities provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

G. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. 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; and
- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following.

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: 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 property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a set management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

Section 2 – Conveyance Program

A. General

Many non-boating activities that cross or are located within a lake's Project Boundaries require a formal written conveyance from DE-LS, and an order approving the conveyance from the FERC (if applicable) **before** beginning any construction within the Project Boundaries. The types of uses for which a conveyance is required are construction, replacement, expansion, realignment, or significant maintenance of the following: roadways, causeways, and bridges; water lines and water intakes (except for single home use which are covered under the Miscellaneous Reservoir Uses Program); discharging effluent lines and non-discharging sewer lines; stormwater outlets; transmission, distribution, and retail lines for telephone, telegraph, cable TV, railroad signal, petroleum product, and electric utilities; and other uses if deemed necessary by DE-LS. Successful conveyance applicants will also be required to enter into an easement, lease, or users' agreement/permit to ensure that long-term operation of the facility does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Conveyance applications. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for Conveyances

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. In addition, all necessary governmental permits or approvals, a FERC order (if applicable) and written authorization from DE-LS must be obtained by the applicant prior to beginning any activity/construction within the Project Boundaries or on any Duke Energy-owned peripheral strip.

3. 50-ft Environmental Offset – New or expanded conveyance activities may not be constructed within the 50-ft Environmental Offset (Figure 2B-1) associated with an Environmental classification identified in the SMP unless the permitted activity currently exists within the offset.

4. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

5. Timing of Lease/Users' Agreement – All conveyance activities associated with new, rebuilt, or expanded facilities must have an executed easement, lease, permit, or other instrument of conveyance with Duke Energy within 18 months following issuance of a FERC order or within 18 months following receipt of the instrument of conveyance if a FERC order is not required.

6. Submarine Utility Lines – All submarine utility lines must be buried a minimum of two ft below the lakebed in all parts of the full pond area that they cross. (*Exception: Exposed submarine utility lines may be allowed in areas where the lakebed elevation is deeper than the Critical Reservoir Elevation [CRE] [see Glossary] on the specific lake provided that the exposed portion of the submarine utility line is: (a) laid upon the lakebed; (b) substantially anchored; and (c) shielded if necessary to prevent damage by boat anchors. A Lake Facility Safety Plan may also be required [Figure 2B-2]*.)

7. Water Intakes – New, expanded, or rebuilt permanent Large Water Intakes (i.e., greater than or equal to 1 million gallons per day [MGD] maximum instantaneous capacity) should be fully operational with the reservoir level at or above the *Critical Reservoir Elevation* (CRE) (see Glossary) that is required for full hydroelectric station operation on the specific lake. All applicants are required to demonstrate the proposed means to address this requirement by providing an engineering feasibility evaluation stamped by a licensed professional engineer. Exceptions for shallower intakes will only be considered if there is overwhelming evidence included in the feasibility evaluation that an intake cannot be practicably constructed (economic factors will be considered although costs will not be the sole factor in determining practicability) to allow full unimpeded operation of the intake up to its proposed maximum instantaneous capacity with the reservoir level at or above the CRE that is required for full hydroelectric station operation. The evaluation and justification for any such exceptions for approval of shallower intakes must further consider the proposed intake's relationship with the CRE needed for any existing Large Water Intakes used for Public Water Supply, industrial or regional non-hydroelectric power plant operation on the specific lake. DE-LS will not normally approve applications for permanent Large Water Intakes that require reservoir levels above the existing CRE for the specific lake. Also, DE-LS will not normally approve expanded or rebuilt permanent Large Water Intakes that require reservoir levels for full unimpeded operation up to its proposed maximum instantaneous capacity that are above the existing CRE for the original intake.

8. Screens on Water Intakes – New, expanded, or rebuilt permanent Large Water Intakes (greater than or equal to 1 MGD maximum instantaneous capacity) and permanent small water intakes (less than 1 MGD maximum instantaneous capacity) should, to the maximum practicable extent: (a) use passive screens; (b) provide screen openings not to exceed one centimeter; and (c) provide a maximum intake velocity of 0.5 fps or less. For waters with anadromous fish, the applicant must consult with appropriate federal and state resource agencies and determine the appropriate intake and screen design specifications.

9. Submerged Effluent Outfalls – New, expanded, or rebuilt submerged effluent outfalls should be completely submerged and fully operational with the reservoir level at or above the Critical Reservoir Elevation (CRE) (see Glossary) that is required for full hydroelectric station operation on the specific. All applicants are required to demonstrate the proposed means to address this requirement by providing an engineering feasibility evaluation stamped by a licensed professional engineer. Exceptions for shallower outfalls will only be considered for: (a) non-submerged outfalls; or (b) submerged outfalls if there is overwhelming evidence included in the feasibility evaluation that the submerged outfall cannot be practicably constructed (economic factors will be considered although costs will not be the sole factor in determining practicability) to allow full unimpeded operation of the outfall up to its proposed capacity with the reservoir level at or above the CRE that is required for full hydroelectric station. The evaluation and justification for any such exceptions for approval of shallower outfalls must further consider the the CRE needed for any existing Large Water Intakes used for Public Water Supply, industrial or regional non-hydroelectric power plant operation on the specific lake. DE-LS will not normally approve applications for submerged outfalls that require reservoir levels above the existing CRE for the specific lake for full unimpeded operation of the outfall up to its proposed capacity. Also, DE-LS will not normally approve expanded or rebuilt submerged outfalls that require higher reservoir levels for full unimpeded operation than reservoir levels required for the original outfall.

10. Non-Public Bridges Accessing Privately-Owned Islands – New construction of non-public bridges that will cross the full pond contour, except those that are intended to provide access to privately-owned island(s), will not be authorized.

11. Non-Public Bridges, Causeways, and Roadways – New construction of any non-public bridges (except for access to privately-owned islands), non-public causeways, non-public roadways (beyond those minimal width driveways necessary for access to other approved lake use facilities), non-public dams, and non-public dikes will not be authorized within the FERC Project Boundaries or on any Duke Energy-owned peripheral strip (Figure 2B-3).

12. Bridge Clearance for New Bridges – Any proposed new public or non-public bridge that will cross the full pond contour in an area considered navigable in the peak recreation season must have a clearance height at least 12 ft above the full pond elevation for at least the middle third of its span or 10 ft of width, whichever is greater.

13. Bridge Clearance for Existing Bridges – Any replacement, expansion, or realignment of existing bridges must not reduce the existing clearance height from full pond elevation in areas considered navigable in the peak recreation season.

14. Dams, Dikes, and Causeways – New construction of any dams, dikes, or causeways that cut off the backs of Project coves from the rest of the Project area will not be authorized.

15. Lake Facility Safety Plans – A Lake Facility Safety Plan, where required, must be developed by the applicant delineating the methods used to secure an area during construction and warn boaters of any potential public safety or navigational hazards. Any signage or warning/safety devices necessary for the safe construction and subsequent operation of proposed facilities/activities must be provided and maintained by the applicant and are typically identified in a Lake Facility Safety Plan.

16. Agency Concurrence with Lake Facility Safety Plans – Where required, a Lake Facility Safety Plan must be developed by the applicant with the concurrence of the state wildlife agency and marine commission (where applicable) and submitted as part of a complete lake use permit application. The safety plan must include a plan and schedule for installation, maintenance, and inspection of the warning/safety devices needed for lake user safety, with responsibilities listed and verified by confirmation letters from the responsible entity(s).

17. Facilities Requiring Lake Facility Safety Plans – As a minimum, Lake Facility Safety Plans will be required for: (a) all proposed new, expanded, or rebuilt bridges and causeways that cross the full pond contour in areas that are considered navigable in the Peak Recreation Season (see Glossary) (i.e., areas that have at least a 10-ft wide by 3-ft deep channel with lake level at its target summertime elevation); (b) all Large Water Intakes (greater than a 1 MGD maximum instantaneous capacity); and (c) all submerged effluent outfalls and dry hydrant intake lines that are exposed at reservoir levels above the Critical Reservoir Elevation (CRE) on the specific lake. Applicants for these types of facilities, as well as any others as may be determined by DE-LS, must submit a Lake Facility Safety Plan as part of their lake use permit application.

18. Applications for Electricity-Carrying Utility Lines – Applicants for new construction of electricity-carrying utility lines (both overhead and submarine) will be required to show in their applications why it is not feasible to redesign the line to: (a) Remove the line's right-of-way completely from the full pond area (**preferred**); (b) Incorporate the line crossing need by expanding an existing line crossing, rather than creating a new one; or (c) Install the line by using directional boring techniques. Applicants for expansion/rebuild of existing, electricity-carrying utility lines will also be required to show in their applications why it is not feasible to remove the line's right-of-way completely from the full pond area or to incorporate the line into another existing line crossing. All proposed utility line crossings must comply with the US Army Corps of Engineers requirements and the then-current National Electric Safety Code or Pipeline Safety Regulations (as applicable), and compliance must be certified by a registered land surveyor and a licensed professional engineer.

19. Overhead Electricity-Carrying Utility Line Prohibitions – Duke Energy will not authorize:

a. Any construction of new non-Duke Energy overhead, electricity-carrying utility line crossings whose right-of-way limits would cross existing boat launching / docking / mooring, parking, or storage facilities within the full pond contour or Duke Energy-owned Project Recreation Site.

b. Any expansions or rebuilds of previously approved overhead, electricity-carrying utility lines whose right-of-way limits would cross existing boat launching/docking/mooring, parking, or storage facilities unless all of the following requirements are met:

   1) The line crossing and its right-of-way limits are designed to avoid the lakebed area used by the boating facilities to the maximum extent practicable.

   2) The line crossing is designed with the higher clearance height as required by the National Electric Safety Code or US Army Corps of Engineers requirements for lines crossing boating access facilities.

20. Support Structures for Overhead Electricity-Carrying Utility Lines – Structural supports and guy wires for overhead, electricity-carrying utility lines must be located outside the full pond contour to the maximum practicable extent.

21. Wastewater Effluent Discharges in Cut-Off Areas – Unless there is no other feasible alternative, wastewater effluent lines that discharge directly into *cut-off areas* (see Glossary) that were created by dams, dikes, or causeways will not be authorized.

22. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application and within the approved *build-out period* (see Glossary). The initial build-out period for conveyance activities is 18 months from the date of application approval by DE-LS. A one-year extension may be approved by DE-LS if the applicant files a written request, prior to expiration of the 18-month build-out period, detailing what approved activities have been completed, what approved activities remain to be completed, and the reason for the delay, along with any applicable fees (including an extension fee). If during an extension period additional guidelines are imposed, the remaining construction will be required to comply with the additional guidelines to the maximum practicable extent. Failure to construct a facility within the total, approved build-out period with one extension (i.e., 30 months total) will require the applicant to contact all agencies that issued permits and document the originally issued permits are still valid or acquire reissued permits for those that have expired. This will allow the issuance of a second 12-month extension (i.e., 42 months total) which will require payment of a second application filing fee and security deposit, and forfeiture of the original deposit. If the applicant does not complete all activities within this final 12-month extension period, DE-LS will notify the applicant in writing that all approvals have been withdrawn and reauthorization to complete construction of the facilities will require re-entry into the application review and approval process (including, as a

minimum, providing a new construction schedule, detailed description of the facilities to be constructed, and the applicable fees and security deposits), and such reauthorization may not be granted. Construction will not be allowed to resume until additional written authorization is received from DE-LS. (*Exception: Public facilities may be eligible for up to two additional, one-year time extensions not available to other type facilities [total potential build-out period is five and a half years]. To be eligible, the applicant must show that at least fifty percent of the remaining proposed facilities were completed during the previously approved time extension*.)

23. Applicant – The applicant must be a natural person; a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. The lessee/permittee/grantee must be a corporation, partnership, or a limited liability company (duly formed and registered); or a division of government, and must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. DE-LS will hold the adjoining property owner fully responsible for the permitted lake use (including maintaining structures in good repair). This responsibility is considered to transfer automatically along with ownership of the adjoining tract. It is therefore the responsibility of the property owner to ensure that authorization for the permitted use and any conveyance documents for facilities within the Project Boundaries or peripheral strip are transferred should there be a change in ownership of the adjoining tract and/or facility.

(*Exception: An easement may be considered as a substantial equity interest in lieu of fee simple ownership of the adjoining tract where fee simple ownership is not customary [e.g., for public need projects where the applicant is a public entity]*.)

24. Lease/Users' Agreement – All conveyance applicants are required to enter into a lease, easement, permit, or users' agreement for the FERC Project area that the facility will occupy.

25. Project Recreation Sites – Conveyance proposals for non-Project use activities should generally avoid crossing a Duke Energy-owned Project Recreation Site. Any conveyance activity for a non-Project use that crosses a Duke Energy-owned Project Recreation Site will have increased permitting requirements and siting limitations (e.g., crossing location limited to very few areas, future limitations on expansion).

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric

project (e.g., Catawba-Wateree Project) is a privilege that can only be granted with authorization from the licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. 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; and
- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following.

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: 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 property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a fixed management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

Section 3 – Excavation Program

A. General

DE-LS has developed an Excavation Programmatic Agreement (PA) in consultation with resource agencies, and the requirements of this PA are incorporated in the Excavation Program. The Excavation Programmatic Agreement establishes guidance for obtaining authorization for the removal of soil, sand, silt, or rock materials from within the FERC Project boundaries of Duke Energy lakes. The Excavation Program does not circumvent the necessity for the applicant to obtain prior federal (e.g., US Army Corps of Engineers), state (e.g., NC Dept. of Environment and Natural Resources [NC-DENR], SC Dept. of Health and Environmental Control [SCDHEC]) and local (e.g., county) approvals as determined by those agencies for any excavation activities. This program will ensure compliance with federal, state, and local regulations, including those of the FERC. DE-LS may issue permits for minor excavation activities such as those required to support the installation and maintenance of bulkheads, boat launching, and access to docking facilities, small water intakes, utility lines, or other activities that do not require FERC approval. Excavation applications require review by the appropriate resource agencies and some also require FERC approval. Any excavation or shoreline stabilization work needed to support a FERC application is also subject to FERC approval and will be included as a component of the primary FERC application. All parties desiring to excavate within the Project Boundaries must first contact DE-LS and obtain written authorization prior to beginning work. DE-LS may require the applicant to enter into a lease/permit or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as those for Excavation. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for an Excavation

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserve the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All excavations must comply with all applicable local, state, and federal regulations. Also, any necessary governmental permits or approvals, a FERC order (if applicable), and written authorization from DE-LS must be obtained by the applicant prior to beginning work within the Project Boundaries.

3. South Carolina – All excavations in South Carolina, less than 150 cubic yards, must conform to the requirements of the General Permits issued by the SCDHEC or the US Army Corps of Engineers, as applicable. Applicants in South Carolina proposing

excavations that are not covered under the General Permit, or are greater than 150 cubic yards, must receive prior authorization from the SCDHEC or the US Army Corps of Engineers, as applicable before submitting their completed application to DE-LS.

4. Fish Spawning – In both North Carolina and South Carolina, excavation activities must not occur during the months of March, April, May, and June because of potential impacts to fish spawning areas.

5. Water Willow Beds – Excavation is not allowed within water willow beds except as necessary to maintain access to previously approved facilities.

6. 50-ft Environmental Offset – New excavation activities are not allowed within the 50-ft Environmental Offset (Figure 3B-1) associated with an Environmental classification identified in the SMP except as necessary to allow continued access to a previously approved facility (Figure 3B-2).

7. Individual Permit Requirement – The Excavation Programmatic Agreement and the General Permits in both North Carolina and South Carolina allow Duke Energy to authorize excavations, provided the applicant notifies the appropriate agencies and all necessary permits are obtained prior to beginning any excavation. Applicants should limit their excavation activities where practicable to meet the requirements of the applicable General Permit and/or the Excavation Programmatic Agreement; otherwise, an individual permit will have to be obtained from the proper agency and FERC review may be required.

8. FERC review is required for:

   a. All excavations, except for *maintenance excavations* (see Glossary), that will exceed 2000 cubic yards of material removed. (***Note**: All excavation volumes that the applicant [e.g., developer] proposes to remove as part of a planned project [e.g., an entire subdivision] will be added together for comparison against this 2000 cubic yard limit to facilitate review of potential cumulative impacts. If lot purchasers file subsequent excavation application requests, their requests will be evaluated on an individual basis*.)

   b. Any excavation activity that is required to support another proposed lake use request that requires FERC review (e.g., construction of a large marina not within the scope of the land use article).

9. Placement of Excavated Material – All excavated material must be placed in upland areas landward of the Project Boundaries and confined to prevent erosion and sedimentation.

10. Staging of Excavation Work – All excavation work, including equipment setup, must not encroach into or in front of adjoining property unless specific written authorization is

given by the affected property owner(s) (typically through their participation as co-applicants). All excavation work must be confined to the delineated excavation area in front of the applicant's property with the exception of access channels, which typically run perpendicular to the shoreline within the nearest one-third of the cove area and/or parallel to the shoreline within the middle third of the cove area that is controlled by Duke Energy.

11. Best Management Practices for Excavated Materials – All excavated material must be handled following Best Management Practices as defined by each state unless special consideration is given in writing by the SCDHEC or the NCDEQ-Division of Energy, Mining, and Land Resources.

12. Double Handling – Double handling of excavated material within the full pond elevation contour will not be allowed. Therefore, all excavated material must be placed above the full pond elevation contour in one handling unless the spoil material is loaded in a barge for transport outside the Project Boundaries. Barge-loaded spoil must be directly off-loaded outside the full pond elevation contour and cannot be loaded into transport equipment (e.g., trucks, conveyors) within the full pond elevation contour.

13. Erosion and Sedimentation Control – All excavated material and disturbed shoreline must be stabilized to prevent erosion and runoff into the lake.

14. Minimization of Disturbance – Applicants must excavate and disturb only what is absolutely necessary to achieve the excavation projects stated purpose (Figures 3B-3 through 3B-5).

15. Unauthorized Excavation Activities – Excavation permits will not be issued for the following activities:

    a. Channeling to create additional shoreline or any other excavation that would alter the Project Boundaries or full pond elevation contour;

    b. Any excavation that would impact threatened or endangered species, historic properties, or environmentally important areas;

    c. Excavation activities not associated with maintaining access to an existing permitted facility or a proposed facility for which the owner has submitted an application and received written approval from DE-LS for its construction; and

    d. Excavation activities that support a new marina facility (i.e., within five years of DE-LS approval) if excavation was not part of the original application

    (*Note: Areas with characteristics listed under item b above may be identified in the SMP [where applicable]. Also note that certain public need projects undertaken by public entities may not have another practicable alternative, and therefore may have some*

unavoidable impacts on the lake's scenic, environmental, and cultural values. Such public need projects may be allowable, provided the applicant can develop an adequate mitigation plan.)

16. Sand Mining – Sand mining operations within the Project Boundaries, usually on headwater portions of the reservoir, may be authorized in accordance with the Excavation and Conveyance Program guidelines to the maximum practicable extent. Operations outside the Project Boundaries on Duke Energy property will have to be authorized with concurrence of Duke Energy's Real Estate Department.

17. Return Water – Return water associated with hydraulic excavation must re-enter the lake in the same general vicinity and cove as the excavation, to the maximum practicable extent.

18. Access Channels Side Slopes – Access channels and boat basins must have side slopes excavated to a slope of 3 to 1, except where safety requirements may dictate a flatter slope.

19. Size of Access Channels and Boat Basins – Access channels and boat basins shall not extend beyond one-half the cove width in cove areas where the opposing shoreline is classified as Environmental (including 50-ft Environmental Offsets) in the SMP.

20. Explosives – The use of explosives within the Project Boundaries supporting excavation activities will be allowed for public need projects where the applicant is usually a public entity (e.g., municipality, state transportation department, utility line owner supporting a regional public need) and there is no other practicable alternative. The limited use of explosives may also be allowed to facilitate removal of man-made structures (e.g., bridge pilings, intake structures), provided their use can be substantiated based on need rather than preference and the use adheres to all local, state, and federal regulations. DE-LS must be provided the appropriate documentation to ensure compliance with all regulations prior to the use of any explosives. Any other uses of explosives to excavate within the Project Boundaries will not be authorized.

21. Deadline for Completing Excavations – All excavations must be completed as described in the approved application and within 18 months following the date of application approval by DE-LS. The only potential exception to this is for excavations that are necessary for construction of large facilities (e.g., large marinas, large water intakes) where the facility application schedule allows for a longer time period. A single 12-month extension may be considered if the applicant files a written request with DE-LS, prior to expiration of the 18-month application approval, explaining why the additional time is needed. If during an extension period additional guidelines are imposed, the excavation will be required to comply with the additional guidelines to the maximum extent practicable.

22. Applicant as Owner/Leaseholder – The applicant must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip. If the applicant is not claiming to be the owner or leaseholder of said property, then written authorization from the owner(s) and proof of title to the property must be provided to carry out the proposal within the Project Boundaries adjacent to their land. DE-LS will hold the applicant and/or the land owner fully responsible for the permitted lake use. This responsibility will run with the land and will transfer automatically along with changes in ownership and/or leases of the adjoining tract.

23. Review of Associated Applications – In a development proposed to provide Residential Marina access, the developer must submit a complete application and receive written confirmation from DE-LS that the application has been submitted to Duke Energy's Law Department for preparation in filing with the FERC (if applicable); or a copy of the homeowner's covenants and the final recorded subdivision plat, approved by the county or local jurisdiction's planning and zoning office, must be submitted acknowledging the location of the planned facilities prior to DE-LS reviewing applications for lake use activities under the Private Facilities, Excavation, Miscellaneous Reservoir Uses and Shoreline Stabilization programs.

24. Excavation Contract – A copy of the contract between the applicant and the excavation contractor must be provided with the completed Excavation Program Application Form.

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally licensed hydroelectric project (e.g., Catawba-Wateree Project) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. 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; and
- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following:

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: 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 property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a fixed management fee of $1,000, is paid.

- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

Section 4 – Private Facilities Program

A. General

All parties desiring to construct an individual private facility or Common-Use Facility must first contact DE-LS and obtain written authorization from DE-LS prior to beginning any activity/construction within the Project Boundaries or on Duke Energy property. All facilities must be constructed from the applicant's deeded or leased project-front lot for the purpose of providing private access for the owner or leaseholder of the project-front property. Facilities supporting multi-family type homes or owners of lots that do not have project frontage must be handled through the Marina Facilities Program. DE-LS may require the applicant to enter into a lease or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Private Facility applications. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for Private Facilities

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Projection of Property Lines – For new, expanded, or rebuilt facilities, property lines will be projected by DE-LS by extending an imaginary line perpendicular to the Project Boundaries at each property corner. These projected lines are determined by bisecting the angle formed by the two lakefront property lines that intersect at each property corner. Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft or extend across projected property lines. On reservoirs with local ordinances that dictate property line projections utilizing a different methodology, DE-LS will accept projection in accordance with local regulations with enforcement being the responsibility of the governing entity. Unless the necessary written release is received from the adjoining property owner, no part of the proposed private facility (including anchoring systems) or moored watercraft may cross the property lines as projected (Figure 4B-1). (***Note****: Pier Zones are planning tools used in some developments, but their use does not supersede requirements of the DE-LS SMG, the General Permits in South Carolina, or county or local jurisdiction's requirements in either North Carolina or South Carolina*.)

3. Term of Encroachment Agreements – Written release to encroach across a projected property line remains valid for the life of the permit. If a permit is authorized with a written release but is not constructed during the 12-month build-out, and ownership of the property being encroached upon changes, then authorization from the new owner will be required as part of the issuance of a new permit.

4. Facility Criteria – DE-LS, in its sole discretion, will determine if facilities (even those assigned hull identification numbers or registration numbers) moored or permanently attached to a structure are considered within the criteria of the Private or Marina facilities programs.

5. Compliance with Regulations – All facilities must comply with all applicable local, state, and federal regulations. Also, the applicant, prior to beginning any activity/construction within the Project Boundaries, must obtain all necessary governmental permits or approvals and written authorization from DE-LS.

6. Maneuvering Area – New or expanded Private Facilities must provide a clear maneuvering area of at least 25 ft between the farthermost portion of the facility (including any moored watercraft) and the opposite shoreline measured at full pond or any existing permitted facility located along the opposite shoreline. Additionally, no new or expanded Private Facilities will be authorized in cove areas less than 25 ft wide (Figure 4B-2).

7. 50-ft Environmental Offset – New or expanded Private Facilities may not be constructed within the 50-ft Environmental Offset (Figure 4B-3) associated with an Environmental classification identified in the SMP unless the permitted facility currently exists within the offset.

8. Water Willow Beds – Applicants are encouraged to avoid activities that could have an adverse impact upon existing water willow beds. Unavoidable impacts should be confined to the sides of water willow beds to minimize disruption of their function as shallow water fish habitat. No floating structures or other extraneous facilities (e.g., gazebos, decks) may be constructed over water willow beds. The width of walkways over water willow beds will be limited to less than three feet. Removal of water willow for continued lake access may be allowed but only for the specific and limited area necessary.

9. Length of Facilities – New, expanded, or rebuilt facilities or mooring buoys shall not extend more than one-third the distance to the opposite shoreline as measured from full pond or extend more than 120 ft lakeward of the full pond, whichever is more limiting (Figure 1B-3). Additionally, facilities must be situated or constructed in size, dimension, or design such that an average-size moored watercraft will not interfere with access to other facilities and not obstruct ingress and egress of watercraft.

10. Flotation Materials – Flotation for all facilities and boat mooring buoys shall be of materials manufactured for marine use. Materials must not lose significant buoyancy if punctured, must not generally be subject to damage by animals, and must resist breaking apart under a broad range of wave energies. Uncoated, beaded polystyrene will not be permitted for any new construction or as replacement for existing facilities. Reuse of plastic, metal, or other previously used drums or containers for encasement or flotation purposes is prohibited. Existing flotation on previously approved structures is authorized until it has severely deteriorated and is no longer serviceable, at which time it must be replaced with approved flotation.

11. Reflectors – Reflectors or reflective tape must be placed and maintained by the applicant on the two furthermost corners of the structure that extend into the water and placed along the sides of the structure from the end back toward the shore.

12. Lighting – Low-pressure sodium lights with time or motion sensors to turn lights off when not needed are preferred. All outdoor fixtures should be fully shielded and installed in such a way that light is not emitted above the lowest part of the fixture. Incandescent lights should be well-shielded, low-wattage lamps that include time or motion sensors to turn lights off when not needed.

13. Minimum Elevation of Decking – All fixed pier decking (not including handrails) must be at least one foot above the full pond elevation. Small stair-stepped landings may be constructed on the sides of stationary piers to facilitate boat entry.

14. Enclosure of Facilities – The sides of gazebos, boat shelters, and covered boat slips are not to be enclosed. This includes, but is not limited, to siding and latticework. The bottom portion of gazebos may be enclosed, provided the gazebo is not the furthermost portion of the pier structure. Handrails may be put on for safety, but must not be enclosed.

15. Storage Closet / Locker – Covered boat slips and boat shelters may have one 4 ft by 6 ft (or smaller) enclosed storage closet/locker on one of the corners of the structure closest to shore. (***Note**: This construction must be noted in the application*.)

16. Roofs – Canopy roofs are permitted provided the sides are not enclosed. The canopy must not block cross vision any more than a standard pitched roof.

17. Boat Covers – *Boat covers* (see Glossary) may be permitted provided the following:

    a. The fabric and frame are the same dimensions as the watercraft;

    b. The roof, if a stand-alone structure, is not flat and does not exceed 12 ft in height as measured from the top of the roof to full pond;

c. The device, if free-standing, does not allow the entire facility to exceed the total square footage limitations for an Individual Private Facility; and

d. There are no storage compartments placed under boat covers.

18. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, spigots, or any other type of device, which could cause any liquid or solid waste to be discharged into the lake. (*Exception: Water supply lines supporting approved pump-out facilities are exempted from this requirement*.)

19. Houseboats – Watercraft used for habitation shall not be permanently moored at private docks. Permanent mooring must be at marinas that provide pump-out facilities for marine sanitation devices. A watercraft is considered habitable if any of the following exists:

a. Sleeping overnight on the boat for two or more consecutive nights;

b. Staying on, around, or within the moored boat for periods exceeding 24 continuous hours;

c. Hardwiring electric power or hard piping plumbing to the boat; or

d. Establishing a mailing address for the boat.

20. Boat Ramps – DE-LS will no longer allow the construction of boat ramps for individual private use.

21. Covered Boat Slips – No covered boat slips, boat covers, or *boat shelters* (see Glossary) will be allowed at Common-Use Facilities with more than two slips.

22. Common-Use Facilities – Common-Use Facilities with three or more slips are not eligible for mooring additional watercraft including PWCs.

23. Maximum Size – Maximum allowed slips and surface areas are as follows:

Facility	Number of Slips or Hoists	Maximum Allowed Square Footage (sq. ft)
Individual Private	2 or less*	1,000
Common Use	2 or less*	1,000
Common Use	3 - 8	1,000
Common Use	9 - 10	1,200
Common Use	> 10	N/A**

* A total of two PWC mooring devices are allowed in addition to this maximum.

** Common-Use Facilities that serve a development and are greater than 10 slips are considered Residential Marina Facilities under the Commercial Marina Facilities Program and must be filed with the FERC.

24. Facilities per Project-Front Lot – Unless DE-LS permitted the facility before June 1, 1996, no more than one pier/dock or one Common Use boat slip per project-front lot will be considered for approval. Ownership/interest in a Common-Use Facility that is provided as part of a master-planned development eliminates the option of having a separate facility at the lot attributed a slip in a Common-Use Facility. An individual property owner that is assigned a slip in a Common-Use Facility that is part of a master-planned development may not transition out of the common use arrangement and construct a pier from their property.

25. Converting from a Common-Use Facility – Individual property owners who have ownership/interest in a Common-Use Facility that is not a part of a master-planned development may transition out of the common use arrangement and construct a pier from their own project-front property only if the remaining Common-Use Facility can comply with the guidelines in effect at the time of transition. If modifications are required of the Common-Use Facility, then construction of the Private Facility from an individual project-front lot will not be allowed until the modifications to the Common-Use Facility are complete.

26. Two-Story Structures – Decks, gazebos, covered boat slips, and boat shelters must be single-story structures. They may be roofed and designed to allow second story use (e.g., sundeck); however, the second story must not be roofed creating a two-story roofed structure.

27. Non-Conforming Structures – Facilities permitted under previous guidelines that exceed the current maximum allowable square footage will not be allowed to have any additions made to the existing facility including, but not limited to, adding roofs or decks above any existing portion of the facility.

28. Pilings and Uncovered Boat Hoists – Pilings and uncovered boat hoists constructed alongside a facility do not typically count towards the maximum square footage but they are considered facility expansions and must meet all other permitting requirements (e.g., maximum number of watercraft, applicable property line projections, and length restrictions).

29. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application within 12 months following the date of application approval by DE-LS. Failure to complete construction within the build-out period will require the applicant to file a new application within the then-current guidelines. The filing will include any applicable fees and security deposits.

30. Applicant – The applicant for a lake use permit must be the owner or the leaseholder of the tract of land immediately adjoining the Project Boundaries or the Duke Energy-owned peripheral strip. The applicant and subsequent permittee is fully responsible for the permitted lake use including maintaining structures in good repair.

31. Permit Transfer – The responsibilities associated with the lake use permit shall transfer to any new owners or leaseholders of the adjoining land. Duke Energy will transfer the permit at no cost to the new owner or leaseholder, provided either the existing facility meets the current SMG or was permitted by DE-LS prior to the effective date of these revised SMG. To initiate the transfer, the new owner or leaseholder must contact DE-LS and sign both the transferred permit and the "User's Agreement Letter". DE-LS will approve the transfer after determining the facility meets the criteria for approval.

32. Minimum Shoreline Requirement – A lot having less than 100 ft of shoreline (as measured along the Project Boundaries) that is suitable for Residential use in the SMP will not be considered for a pier or common-use slip unless it was subdivided and recorded prior to September 1, 2006. (*Note: In the case of lots subdivided and recorded prior to September 1, 2006, the applicant may be allowed to construct up to 10 square ft of pier for every linear foot of developable shoreline so long as the lot has at least 75 linear ft of shoreline. Lots subdivided and recorded before June 1, 1996, that have less than 75 ft of shoreline are also eligible for 10 square ft of pier for every linear foot of developable shoreline*.) (*Note: The 50-ft Environmental Offset may count in the determination of total shoreline footage eligibility requirements needed for a pier, but it may not be built on and must be left undisturbed*.)

33. Private Facilities In Lease Areas – Private Facilities will not be authorized within areas leased or under a use agreement for Marina Facilities.

34. Electric Utility Line Rights-of-Way – Duke Energy will not authorize lake use permits associated with the new construction or expansion of boat launching/docking/mooring facilities that extend into a power line right-of-way containing existing or planned overhead lines.

35. Boardwalks – Boardwalks in the backs of coves are not allowed within the full pond contour. Boardwalks within the Project Boundaries that extend into any regulated buffer area (e.g., Catawba River Basin Permanent Riparian Buffer Protection Rules [15A NCAC 2B.0243]) may only be authorized if the facility is for a single private project-front lot and so long as there is no violation of any applicable buffer regulations. That portion of the facility that extends into the Project Boundaries will be included in the maximum square footage calculation and is limited to a maximum width along the Project Boundaries of 25 ft.

36. Relocation and Reconfiguration – Relocation or reconfiguration of an existing facility is considered new construction, and the guidelines in effect at the time of the proposed relocation or reconfiguration will apply.

37. Rebuilds of Multiple-Slip Facilities – Existing multiple-slip facilities, originally approved under the Private Facilities Program (i.e., community use piers), may be rebuilt under the Marina Facilities Program as a Residential Marina Facility, although its use does not conform to the existing guidelines or shoreline classification. As a general rule, applications for rebuilds (see Glossary to note difference from *Facility Expansion*) of these existing multiple-slip private facilities are subject to the same permitting criteria and review processes as new Marina Facilities. (*Note: Such applications will need to be reviewed by all the required consulting agencies, since their original approval was not reviewed and they will now involve conveyance by lease/user's agreement/permit of Project property*.) The following may be considered:

    a. Waiver of the 200-ft setback requirement, provided that the existing structure was initially approved before January 31, 1994, and the rebuilt structure does not further reduce the setback provided.

    b. Waiver of the *minimum lease/easement area* requirements (see Glossary) where there would be unavoidable impacts to existing permitted structures.

    c. Waiver of the requirement that there be 100 ft of developable shoreline, as defined in the SMP for private facilities or Marina Facilities, for each slip in the facility.

    (*Note: Existing facilities that exceed 120 ft in length or the one-third cove width limitation must be rebuilt to meet these criteria to be considered for waivers a–c.*)

38. Residential Marinas – In a development proposed to provide both private piers and Residential Marina access, see also the criteria associated with the Marina Program located in Section 1.

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree Project) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake

characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. 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; and

- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following.

   - Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

   - Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

   - Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: 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 property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a set management fee of $1,000, is paid.

   - Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

Section 5 – Shoreline Stabilization Program

A. General

All parties desiring to stabilize shoreline or plant shoreline or aquatic vegetation must first contact DE-LS and obtain written authorization prior to beginning any activity/construction inside the Project Boundaries or on Duke Energy property. Shoreline stabilization is encouraged to control soil erosion in high-energy areas. Applicants are encouraged to use bioengineering techniques and landscape plantings before using rip-rap. Seawalls should be the last option for shoreline stabilization. In certain areas, an engineering justification may be required for the use of seawalls (see Figure 5A-1 for Shoreline Stabilization Technique Selection Process). DE-LS may require the applicant to enter into a lease or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (*NOTE FOR ALL NON-PROJECT USE APPLICANTS: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as Shoreline Stabilization. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Criteria for Shoreline Stabilization

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Projection of Property Lines – Property lines will be projected by DE-LS by extending an imaginary line perpendicular to the Project Boundaries at each property corner. These projected lines are determined by bisecting the angle formed by the two lakefront property lines that intersect at each property corner. On reservoirs with local ordinances that dictate property line projections utilizing a different methodology, DE-LS will accept projection in accordance with local regulations with enforcement being the responsibility of the governing entity. Unless the necessary written release is received from the adjoining property owner, no part of the proposed shoreline stabilization (including anchoring systems) may cross the property lines as projected (Figure 4B-1). (*Note: Pier Zones are planning tools used in some developments, but their use does not supersede requirements of the DE-LS SMG, the General Permits in South Carolina, or county or local jurisdiction's requirements in either North Carolina or South Carolina*.)

3. Compliance with Regulations – All stabilization must comply with all local, state, and federal regulations. Also, prior to beginning any activity/construction within the Project Boundaries, the applicant must obtain all necessary governmental permits or approvals, and written authorization from DE-LS, especially for any stabilization activities associated with water willow beds.

4. Clearing to Support Stabilization Projects – Minimal clearing within the Project Boundaries is allowed to create corridors for equipment access for stabilization projects. Access corridors should be incorporated into permanent pier/dock access corridors (i.e., footpaths) where practical. Native vegetation removed to accommodate construction access for shoreline stabilization shall be replaced in accordance with the Vegetation Management Requirements with native vegetation of a similar species or type.

5. Water Willow Beds – Applicants are encouraged to avoid activities (including stabilization) that could have an adverse impact upon existing water willow beds. Bioengineering is a preferred shoreline stabilization technique and is encouraged, especially in eroded areas associated with water willow beds. Shoreline stabilization activities are limited to the eroded bank and any unavoidable impacts to existing water willow beds, as a result of stabilization installation, require replanting water willow in the impacted area(s). Rip-rap installed below the normal lake level elevation and associated with water willow beds must be limited to one layer deep to allow spaces between the stone for water willow recruitment. Removal of water willow for continued lake access may be allowed, but only for the specific and limited area necessary. Removal of water willow by means of chemical application can only be conducted in accordance with state and federal pesticide application regulations.

6. Rip-Rap Use with Bulkheads – A layer of rip-rap (Class B or larger) extending six feet lakeward from full pond must be placed along the entire base of all bulkheads (except for loosely stacked, dry-stacked boulder walls). The six foot requirement for steep slopes is measured vertically. For more gradual slopes where the vertical measurement would prove impractical, a horizontal measure may be used (Figure 5B-2).

7. Bioengineering Vegetation – The types of plantings used in bioengineering and landscape-planting projects should be native to North Carolina and South Carolina, and must be reviewed and approved by DE-LS prior to introduction.

8. Seawalls – Seawalls are not allowed in areas with an average eroded bank height of less than three feet.

9. Bioengineering – Proposals for stabilization where the eroded bank height is less than two ft may use approved bioengineering technique and enhanced rip-rap technique only (see Figure 5B-3 for example of acceptable enhanced rip-rap technique).

10. Length of Shoreline to be Stabilized – An individual permit from the SCDHEC for activities in South Carolina and the US Army Corps of Engineers for activities in North Carolina is required for stabilization that exceeds 500 linear ft of shoreline. Multiple applications for less than 500 ft of stabilization activities on a parcel exceeding 500 linear ft will not be accepted within a five year timeframe.

11. Stabilization of Banks Three Ft or Higher – Stabilization of eroded banks that are three ft in height or higher or that are not associated with water willow beds must include Class B or larger size rip-rap with filter cloth and/or significant live staking, planting, or other forms of bioengineering within the rip-rap.

12. Bank Reshaping – Stabilization of eroded banks that are three feet in height or higher may be considered for bank reshape by either cut or fill techniques, provided the following:

    a. The stabilized bank uses a combination of rip-rap (not installed any higher than one foot above full pond) and bioengineering techniques;

    b. The cut or filled area, above the height of the rip-rap, is stabilized using vegetation in density and composition similar to other naturally vegetated areas in the vicinity of the stabilized shoreline;

    c. The toe of the rip-rap is vegetated if the lower limit of the rock provides a stable beach-shelf at an elevation two to four feet below full pond elevation;

    d. The work can be conducted in accordance with all applicable buffer regulations; and

    e. The amount of cut or fill does not substantially alter the full pond contour, is strictly limited to only that necessary to provide a stable angle for rip-rap and revegetation, and is specifically quantified in the written authorization from DE-LS for the project.

13. Timeframe for Stabilization – No stabilization is allowed from March 1 through June 30 in areas identified as Impact Minimization Zones in Duke Energy's SMP.

14. Impact Minimization Zones – Stabilization in Impact Minimization Zones requires review and approval by the applicable state wildlife agency. Mitigation may be required on a case-specific basis by the wildlife agency.

15. 50-ft Environmental Offset – New or expanded stabilization activities (excluding bioengineering) may not be undertaken within the 50-ft Environmental Offset (Figure 5B-4) associated with an Environmental classification identified in the SMP.

16. Materials – Tires, scrap metal, crushed block, construction/demolition debris, or other types of material that are not aesthetically acceptable are not allowed for stabilization.

17. Rip-rap – Rip-rap use should be limited to only that necessary to adequately stabilize the existing eroded bank. Rip-rap must be confined to the area between six feet below the full pond elevation and full pond elevation except where the entire placement is above the FERC Project Boundaries or where severely eroded banks must be sloped back or terraced to provide minimum bank stability and where permissible based on any local or state buffer requirements.

18. Deadline for Completing Construction – The construction of any facility must be completed as described in the approved application within 12 months from the date of application approval by DE-LS. Failure to complete construction within this 12-month period will require the applicant to file a new application within the then-current guidelines. The filing will include any applicable fees and security deposits.

19. Applicant – The applicant must be the owner or leaseholder of the tract of land immediately adjoining the Project Boundaries or Duke Energy-owned peripheral strip, or have the written permission of the underlying property owner on water rights tracts (i.e., Duke Energy only has a flowage easement). DE-LS will hold the applicant fully responsible for ongoing adherence to the SMG and all activities associated with the permitted use (including maintaining structures in good repair). This responsibility runs with the land and transfers automatically to any subsequent owners or lessees of the adjoining land.

20. Review of Associated Applications – In a development proposed to provide Residential Marina access, the developer must submit a complete application and receive written confirmation from DE-LS that the application has been submitted to Duke Energy's Law Department for preparation in filing with the FERC (if applicable), or a copy of the homeowner's covenants and the final recorded subdivision plat, approved by the county or local jurisdiction's planning and zoning office, must be submitted acknowledging the location of the planned facilities prior to DE-LS reviewing applications for lake use activities under the Private Facilities, Excavation Miscellaneous Reservoir Uses and Shoreline Stabilization programs.

C. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree Project) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS prior to initiating these revised guidelines, which are not consistent with the requirements as contained herein. These structures may be maintained although their use does not conform to the current guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

D. Consequences for Violations

7. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. 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; and
- Loss of any consideration for future reservoir use applications.

8. Violation Examples – Examples of specific violations and their applicable penalties include the following:

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.

- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: 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 property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a fixed management fee of $1,000, is paid.

- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

Section 6 – Miscellaneous Reservoir Uses Program

A. General

The following section addresses less frequent types of requests received by DE-LS for uses within the Project Boundaries or on Duke Energy property. Applicants for many of these activities and other activities that may affect Duke Energy property must first contact DE-LS and obtain written authorization prior to beginning any activity/construction inside the FERC Project Boundaries or on Duke Energy property. Application forms and supporting information from the other Lake Use Permitting Programs will be used where applicable for these requests. There may be instances where no application form or other documentation exists that can be used to process a request and in such cases, an applicant may be required to submit a letter of application for the proposal. DE-LS may require the applicant to enter into a lease or other form of conveyance and/or sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. Since every possible scenario cannot be anticipated, DE-LS reserves the right to make special rulings in cases not specifically covered by these guidelines. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as those for Miscellaneous Reservoir Uses. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities*.)

B. Uses Controlled by Duke Energy

1. Advertising Signs – Advertising signs within the Project Boundaries will not be authorized, except for inconspicuous manufacturer's labels on permitted structures or temporary "For Sale" signs on boats docked at Duke Energy-approved structures.

2. Inflatable Recreation Equipment – Duke Energy will not authorize the use and placement of any large water-based recreational equipment (see Glossary to differentiate between *Water-based Recreational Equipment* and *Water Toys*) within the Project Boundaries. Existing items considered to fall within the definition of water-based recreational equipment are not authorized and must be removed from within the Project Boundaries and Duke Energy property.

3. Fish Attractors – Duke Energy does not object to the placing of fish attractors made of natural woody material (e.g., brush, Christmas trees) or PVC that are securely tied together and properly anchored so as not to become a hazard to navigation and to remain: 1) at a depth greater than the *Critical Reservoir Elevation* (CRE) (see Glossary) on the specific lake; 2) covered by an approved boat docking facility; or 3) in close association with an approved pier. Nylon rope should be used to tie the materials together and for connecting materials to the anchor. Anchors should consist of concrete blocks or other

suitable weight. No materials that are environmentally unacceptable (e.g., car batteries, tires) should be used for anchors or as cover materials.

Shallow water fish attractors may be placed by wildlife resource agency personnel or individual property owners adjoining the Project Boundaries subject to the following conditions. Attractors may be placed either (i) underneath the structure or (ii) in shallow water areas associated with a pier, but not directly underneath the structure, provided the attractor: 1) is within 20 ft of the structure; 2) does not extend lakeward any further than the farthest portion of the structure; 3) does not cross the lot lines of the adjoining property, projected lakeward perpendicular to the shoreline; and 4) does not block navigation. (*Note: These requirements are not intended to conflict with trees that fall into the Project Boundaries and provide fish and wildlife habitat and are not a hazard to navigation*.) Applications are made by letter from the applicant.

4. Special Events on Duke Energy Project Recreation Sites – Permission to use a Duke Energy Project Recreation Site for a special event (event) (e.g., fishing tournaments, public festivals, boat race headquarters) will be reviewed on a case-by-case basis, and may be approved, provided that:

   a. The applicant applies by letter to DE-LS.

   b. Applications must include a complete narrative description of the event and a graphic site plan for the proposed use of the Project Recreation Site.

   c. With the exception of fishing tournaments, the footprint of the proposed event occupies no more than 50% of the functional surface area of the Project Recreation Site.

   d. The Project Recreation Site remains open for use by the general public for boat launching during the full extent of the event.

   e. The event is not exclusive to any user group.

   f. All trash and debris is removed from the Project Recreation Site as needed during the event and, at a minimum, on a daily basis, and at the end of the event.

   g. Public restrooms (e.g., Port-a-Jons) are provided by the applicant if required by Duke Energy or other regulatory agencies.

   h. Vendors of food, concessions, souvenirs, etc. may be permitted on a case-by-case basis as determined by Duke Energy in its sole discretion. The applicant must specifically identify proposed vendors/vendor areas by type in the narrative description and on the site plan for the proposed event.

i. It is the applicant's responsibility to ensure that the proposed use of the Project Recreation Site complies with all local, state, and federal guidelines/ordinances.

j. All required permits are the responsibility of the applicant and copies must be provided to Duke Energy to initiate Duke Energy's review of the application. Specifically, written approval by the applicable state wildlife resource agency must be provided to Duke Energy to initiate Duke Energy's review of the application. Wildlife resource agency and DE-LS review will include consideration of potential conflicts with previously scheduled events, potential impact of the proposed use on the primary function of the Project Recreation Site, potential site impacts, and other factors. Additional resource agency consultation may also be required as determined by Duke Energy.

k. The applicant executes a lease agreement with Duke Energy with terms, including liability indemnification and insurance requirements, and pays any applicable fees, as specified by Duke Energy.

5. Heat Exchange Coils for Heat Pumps (Geo-thermal Systems) – DE-LS may authorize these structures, provided they do not cause a safety, navigational or environmental hazard. The coils must be anchored to the lakebed and located at or below the *Critical Reservoir Elevation* (CRE) (see Glossary) on the specific lake unless attached underneath an existing permitted facility in such a manner that the coils and return/supply line will not become a safety, navigational or environmental hazard. All supply/return piping not attached underneath an existing permitted facility must be buried in accordance with the guidelines for submarine utility lines included in the Conveyance Program and located adjacent to the confines of the applicant's project-front property. Applications are made by letter from the applicant.

6. Minor Water Withdrawals – DE-LS may authorize a single irrigation pump for private home use, provided the pump has a rated horsepower of 2 hp or less and is used exclusively for the adjoining project-front lot. Applications are made by letter from the applicant. DE-LS may also authorize small water intakes that do not exceed a maximum instantaneous withdrawal rate of 1 million gallons per day (MGD) within the Conveyance Program (filing with the FERC typically not required). All minor water withdrawals should, to the maximum practicable extent: (a) use passive screens; (b) provide screen openings not to exceed one centimeter; and (c) provide a maximum intake velocity of 0.5 fps or less. For waters with anadromous fish, the applicant must consult with appropriate federal and state resource agencies and determine the appropriate intake and screen design specifications. Additionally, all minor water withdrawals must meet the requirements for submarine utility lines included in the Conveyance Program unless the intake line and intake head are attached underneath an approved facility (e.g., private pier, marina slip). (*NOTE: Major water withdrawals include both single and cumulative water withdrawals exceeding a 1 MGD maximum instantaneous withdrawal capacity. These larger withdrawals must be approved under the Conveyance Program and require*

FERC approval. Additionally, in North Carolina, withdrawals greater than or equal to 100 thousand gallons per day require registration with the NCDEQ-Division of Water Resources.)

7. Satellite Dishes – DE-LS will not authorize these facilities to be located within the Project Boundaries of a reservoir.

8. Ski Ramps/Slalom Courses – DE-LS may authorize ski ramps, slalom courses, and other similar structures, provided: 1) the state wildlife resources agency approves of the activity; 2) the facility and its use will not impact areas identified as Environmental on the SMP; 3) SCDHEC approval is obtained in South Carolina; 4) there are no objections from adjacent property owners; and 5) the applicant complies with the terms and conditions of the "User's Agreement". Applications are made by letter from the applicant.

9. Private Swimming Areas – DE-LS will not authorize private individuals to "rope off" or exclude the public from a portion of the Project area for the purpose of creating a private swimming area.

10. Concession Sales at Project Recreation Sites – DE-LS will not allow any sales on the Project Recreation Sites except for areas under lease to an entity or concession sales that are in association with an approved special event, identified and managed by the event sponsor.

11. Special Use Facilities – These are facilities which are similar in nature to those permitted under the Private Facilities Program, but are not associated with a single-family type private residence and are used as part of the operation of an organization or business. The types of facilities that may be included are piers, boat slips, boat shelters, and covered boat slips, etc. Some examples of organizations that use this type of facility are hunting clubs, ski clubs, churches, industries or businesses for employee recreation areas, and agencies for monitoring piers, etc. These types of facilities will be permitted using the Private Facilities Program and Conveyance Program guidelines (including application forms) to the maximum extent practicable. Applicants may be required to lease the underlying Project property and may be assessed annual user fees.

12. Business Staging Areas – These are facilities or areas along the shoreline that are used to support a business directly associated with one of the lake use permitting activities (e.g., loading ramp for shoreline stabilization, pier to moor construction/excavation equipment, barge mooring area, pier assembly area), temporary staging areas for public infrastructure construction and maintenance, and temporary sales piers for large developments. These types of facilities will be permitted using the Private Facilities Program and Conveyance Program guidelines (including application forms) to the maximum extent practicable. Applicants will be required to enter into a conveyance agreement (for operations that exceed two years in duration); sign user's agreement letter(s); obtain individual permits

for activities outside the scope of the General Permits; obtain all necessary local, state, and federal permits; and pay annual user's fees. Areas used for a period greater than two years will be required to complete a Conveyance Application including filing a notification with the FERC.

13. Wildlife Enhancement Activities – DE-LS may authorize wildlife enhancement activities such as wood duck boxes and other similar structures, regardless of the shoreline classification, provided the activity does not pose a hazard to public safety or navigation, the state wildlife agency approves of the activity, and there are no objections from adjacent property owners. In South Carolina, approval is obtained from SCDHEC. Applications to Duke Energy are made by letter from the applicant.

14. Project Operation and Public Service Facilities – This category includes new and existing facilities needed to directly support comprehensive management of the lakes used by Duke Energy or public agencies (e.g., rescue squads; Power Squadron and US Coast Guard Auxiliary emergency support facilities; state wildlife agency management facilities; police department non-recreational facilities; Duke Energy mosquito control facilities; Duke Energy hydro, fossil, and nuclear power non-recreational facilities) to carry out their official responsibilities The construction of new facilities and the maintenance of existing facilities may have more flexible permitting requirements, provided the applicant can provide justification based on a legitimate need and not just a preference. Applications are reviewed on a case-by-case basis and consultation of the Sr. Lake Services Representative(s) is required.

15. Explosives – The limited use of explosives may be allowed to facilitate the removal of man-made structures (i.e., bridge pilings, intake structures), provided their use can be substantiated based on need rather than preference and the use adheres to all local, state, and federal regulations. The use of explosives within the Project Boundaries supporting excavation activities will be allowed for public need projects where the applicant is usually a public entity (e.g., municipality, state transportation department, utility line owner supporting a regional public need) and there is no other practicable alternative. DE-LS must be provided the appropriate documentation to ensure compliance with all regulations prior to the use of any explosives. Any other uses of explosives to excavate within the Project Boundaries will not be authorized.

16. Dry Hydrants – Fire hydrants that draw water from the reservoir for fire protection may be reviewed by letter from the applicant. The applicant must be an official representing a municipal, state, federal or volunteer fire fighting organization. The applicant must indicate the location, pipe diameter, and fire department/district being served and responsible for maintenance of the structure. The intake line must meet the requirements for submarine utility lines under the Conveyance Program to the maximum practicable extent. Unless attached to an existing facility in such a manner that the intake will not become a safety or navigational hazard, the intake should be located at/below the CRE required for any existing Large Water Intakes used for Public Water Supply, industrial or

regional non-hydroelectric power plant operation on the specific lake. This depth requirement is necessary to provide for the reliability of the hydrant even during drawdown conditions and to ensure the intake does not pose a hazard to navigation and public safety. In cases where lake topography makes meeting the requirements for submarine utility lines impracticable, the intake and/or intake line may be considered at a lesser depth, provided the applicant can provide a Lake Facility Safety Plan that clearly marks along the shoreline and with a buoy(s) the location of the intake and/or intake line. Standardized signs 2 ft by 3 ft in dimension with the wording "Danger Stay Clear, Underwater Fire Intake", will be provided by DE-LS and must be installed conspicuously and maintained along the shoreline by the applicant. Additionally, at least one, 10-inch diameter cylindrical buoy, provided and maintained by the applicant, that extends a minimum of 36 inches above the surface of the water with the word "Danger" and the open diamond shape, must remain stationed at all times lakeward and no further than 10 ft of the dry hydrant line intake structure.

C. Uses Under the Control of Other Agencies

1. Boat Race Courses – Under the control of the U.S. Coast Guard.

2. Kites, Parasails, Ultra-light Aircraft, and Hang Gliders – If regulated, under the control of the Federal Aviation Administration (FAA) while airborne and state wildlife agency and/or local planning and zoning office while on water.

3. Navigational Aids – Under the control of the state wildlife agency and/or applicable marine commission.

4. No-Wake Buoys – Under the control of applicable marine commission and state wildlife agency.

5. Seaplanes – Under the control of the FAA while airborne and state wildlife agency and/or local planning and zoning office while on water, if regulated.

6. Vending Operations on Water – Under the control of the county Health Department.

7. Net Pens and Aquaculture Operations – These uses are not authorized.

D. Caution

1. Authorization Required from Licensee – Adjoining property owners should be aware that conducting activities within the Project Boundaries of a federally-licensed hydroelectric project (e.g., Catawba-Wateree Project) is a privilege that can only be granted with authorization from the Licensee. Duke Energy supports use of the Project lands and waters for a variety of activities, provided the use meets the regulatory requirements of

the license and protects and enhances the Project's scenic, recreational, cultural, and environmental values.

2. Protected Areas – There are some areas of the lake where facilities may not be permitted because of environmental considerations, development patterns, physical lake characteristics, impacts to cultural resources, or other reasons. These areas may be identified in the SMP (where applicable).

3. Minimization of Impacts – The permittee must make every reasonable effort to minimize any adverse impact on fish, wildlife, and other natural resources.

4. Non-Authorized Uses – There are some types of lake uses that cannot be authorized. Refer to Section 7B for a listing of commonly requested uses that Duke Energy will not authorize.

5. Non-Conforming Structures – There are existing structures and improvements permitted by DE-LS, prior to initiating these revised guidelines, which are not compatible with the requirements as contained herein. These structures may be maintained although their use does not conform to the enclosed guidelines. When it becomes necessary to rebuild (see Glossary definition of *Facility Rebuild*) a previously approved, non-conforming structure, the rebuilt structure must comply with the guidelines in effect at the time of replacement to the maximum practicable extent.

6. Flood Easements – In general, Duke Energy has reserved, on a tract-by-tract basis, a deeded flood easement extending 10 ft or more vertically above the full pond elevation contour on all lakes it owns or operates, to accommodate high water and allow for operational flexibility in severe weather events. Although these deeded flood easements typically do not prevent construction of dwellings and other permanent structures, Duke Energy strongly recommends that adjoining property owners avoid building such permanent structures within flood easement areas. Buffer regulations must also be considered for any construction or alteration of vegetation above the full pond contour elevation.

E. Consequences for Violations

1. Penalties – DE-LS representatives will issue Stop-Work Directives for any violations that are detected within the Project Boundaries of a reservoir. 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; and
- Loss of any consideration for future reservoir use applications.

2. Violation Examples – Examples of specific violations and their applicable penalties include the following:

- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (no existing pier/dock): Restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized major cutting of the vegetated area (see Section 8) within the Project Boundaries (existing pier/dock): Removal of the pier/dock from Project property and restoration with approved native vegetation. Loss of consideration for lake use permitting activities for up to five years depending on severity and subject to successful plant restoration.
- Unauthorized minor cutting of trees within the vegetated area (see Section 8) within the Project Boundaries: 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 property by DE-LS. Loss of consideration for lake use permitting activities until cost of removal, which includes all removal costs including DE-LS or contractor expenses, landfill fees, and a set management fee of $1,000, is paid.
- Unauthorized structure built within the Project Boundaries: After-the-fact application may be accepted if structure conforms to the specific requirements. Fee will be twice the current permit fee to cover additional management costs. Non-complying structures will be subject to modification or removal and restoration of disturbed areas at the owner's expense.

Section 7 – General Policies that are not Lake-Specific

The policies stated in this subsection apply to all lakes within the Catawba-Wateree Project, unless specifically stated otherwise. Management of Islands and Project Recreation Sites are addressed in both the SMP and RMP. Future updates to the SMP may include shifting management of these areas completely to the RMP. The shoreline along the Islands and Project Recreation Sites will continue to be managed under the SMP.

A. Lake Uses Allowed Without Specific Duke Energy Written Approval

There are some lake uses that are implicit parts of Duke Energy's lake access philosophy and therefore do not require any specific written permission from Duke Energy. These *implicit uses* (see Glossary) include:

1. Ingress and Egress – Ingress and egress by adjoining property owners to view the lake or to access Duke Energy approved lake use facilities either for their use or for *facility maintenance* or *facility emergency repair* (see Glossary for differences between *Facility Maintenance, Facility Emergency Repair, Facility Rebuild*, and *Facility Expansion*.)

2. Management of Dead Trees – Ability for adjoining property owners to remove dead trees consistent with any local buffer ordinances or habitat protection requirements provided by the resource agencies.

3. Public Recreation – Pursuit of any lawful public recreation activity within the FERC Project Boundaries of a licensed lake or the full pond contour of an unlicensed lake that does not violate Duke Energy's 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. Exceptions are any public recreation activity specifically identified as not being allowed in this document or that requires Duke Energy's written approval.

4. Project Recreation Sites – DE-LS will allow uses of the Duke Energy-owned Project Recreation Sites for boat launching and bank fishing with the following activities prohibited:

    a. Littering;

    b. Consuming alcoholic beverages or other controlled substances;

    c. Destroying or defacing property or harassing wildlife;

d. Disorderly conduct;

e. Parking in non-designated areas;

f. Discharging firearms;

g. Operation of motorized trail bikes or off road vehicles;

h. Open fires (unless allowed by the leasing agency or facilities are specifically provided by Duke Energy for this purpose); and

i. Camping (unless allowed by the leasing agency or facilities are specifically provided by Duke Energy for this purpose).

B. Lake Uses That Are Not Authorized

Considering the objectives of these SMG as stated in the introduction, a number of potential lake uses will not be authorized. The following list includes some of the more frequently requested lake uses that will not be approved within the full pond contour, the FERC Project Boundaries, or within any Duke Energy-owned peripheral strip of a Duke Energy-operated lake. (*Note: Some of these uses have been allowed by Duke Energy in the past. Applications for rebuilds or permit/lease/easement transfers or renewals of any previously approved facilities for the listed uses will be reviewed on a case-by-case basis and require approval, at a minimum, by the management of DE-LS.*)

1. Septic tanks, septic drain lines and drain fields, toilet facilities, sinks, water faucets, showers, or any other type of device that could produce a wastewater discharge, except for certain Marina 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. Washing (except with biodegradable detergents specifically formulated for use in reservoirs), painting, or resurfacing of vehicles or watercraft;

4. Any portion of a private dwelling;

5. Any facility including, but not limited to, porches, patios, decks, driveways, or other structures(s) not permitted as part of a Private Facilities Permit;

6. Swimming pools, except at Public Recreational Facilities specifically approved for that use;

7. Camping, except at Commercial Marina Facilities or Public Recreational Facilities specifically approved for that use;

8. Littering or dumping of trash and debris;

9. Abandonment of personal property including, but not limited to, vehicles, watercraft, boat trailers, lake use facilities, and building materials;

10. Pens, kennels, or other facilities for the housing and care of pets;

11. Fences, except as necessary to confine livestock watering to a small area of the shoreline;

12. Net pens and aquaculture operations;

13. Placement of structures designed to submerge and then resurface, except for buoys for ski slalom and boating courses, and boat hoists associated with an approved facility;

14. Wells, except where necessary to support an approved Project Use Facility;

15. Rope swings, cables, platforms, or springboards used for diving and swimming that are not associated with an approved facility or located outside of Public Recreation or Commercial Marina Facilities specifically approved for that use;

16. Any use that violates an applicable federal, state, or local law or regulation; and

17. Any other use that is determined to be unacceptable by Duke Energy, in its sole discretion.

C. Authority and Responsibility of Lake Use Permit Applicants

Except for the implicit uses described above, all other lake uses 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 receive an approved lake use permit from Duke Energy. Duke Energy has incorporated some type of user's agreement/permit, lease, or easement document in the vast majority of lake use permits the company issues in an effort to ensure applicants understand what they do/do not own, their maintenance responsibilities, and their authority with regard to controlling actions of others within the lake area. The following information also helps clarify those issues.

1. Responsibilities of Applicant – The applicant is the owner of the approved lake use facility during construction and once it is complete. Duke Energy holds the applicant completely responsible for:

    a. The safety of themselves and others they allow to use the facility (i.e., use at your own risk);

    b. Payment of any applicable fees and taxes;

c. Maintaining the facility in a state of good repair;

d. Ensuring the facility does not create a public nuisance or public health/safety hazard (including marking facilities during and after construction to reduce hazards to navigation and public safety);

e. 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; and

f. 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.

2. Transfer of Applicant Responsibilities – If ownership of the adjoining property changes, then responsibility for the lake use facility also changes. Facility owners must contact Duke Energy to get their applicable permits transferred to the new owner when property ownership changes. Note that some types of lake uses require written transfer of lease/easement/user's agreement/permit documents when property ownership changes.

3. Non-Structural Lake Uses – Some types of approved lake uses (e.g., excavations) do not include any structures. The applicant is still responsible for ensuring the approved use does not create a public nuisance or public health/safety hazard, and that it is modified as needed in the future to comply with any applicable regulations or Duke Energy lake management requirements.

4. Land Ownership – Duke Energy lake use permits do not transfer title to any land.

5. Cancellation of Lake Use Permits – The Private Facilities and Shoreline Stabilization Programs' permits are simply permission to use the applicable land for construction, operation, use, and maintenance of the approved structure. Consistent with the approval, the permit may be cancelled by Duke Energy and the permittee would be required to remove the structure and restore the disturbed area at their expense.

6. Leases and Easements – The Marina Facilities Program and Conveyance Program have leases or easements (except for water rights tracts which have permits/user's agreements). 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, Duke Energy uses leases, permits and easements to assign the minimal property rights necessary to construct, operate, use, and maintain the approved facility. These programs will also have a specified term and a cancellation clause covering what happens if the agreement is cancelled or not renewed at expiration.

7. Public Access – Lake use permit holders have the authority to prevent others from trespassing on the structures they have built. They do not, however, have any authority to impede anyone from pursuit of the lawful public recreational enjoyment of FERC Project lands and waters. Except as specified otherwise in this document or other Duke Energy documents (e.g., Public Safety Plan), anyone may fish around/under structures built by others, may walk/wade/fish within the FERC Project Boundaries or any Duke Energy-owned peripheral strip, boat in the lake's waters, etc., without having to obtain permission to do so.

D. Storm Damage and Facility Repair/Replacement

A facility may be entirely rebuilt and consideration given to waiver of any application filing fees if it can be substantiated that the reason for the rebuild is the result of an act of God (e.g., significant high water, high wind, heavy snow, fire as a result of a direct lightning strike) that destroys enough of a facility that it can no longer be used and cannot be repaired within what is considered a maintenance activity. A documented, written application must be made to DE-LS within six months following the verifiable date of the event. Consideration for complete restoration will only be given to permitted facilities that complied with the SMG in effect (if applicable) at the time of construction. The need to obtain written release from an adjoining property owner if the original facility encroached across the projected property line may not be required especially if there is no practicable alternative for reconstruction of the facility within the current guidelines in another location. Consideration will not be given to facilities that have been previously identified and not repaired as part of the Structure Renovation Program or other written directives (e.g., Stop-Work Notice, navigation hazard/public safety notification) from DE-LS.

E. Use of Islands

For FERC licensed lakes, islands are normally fully within the FERC Project Boundaries, and the FERC's general policy for maximizing public recreation uses of Project lands would apply. The islands are within the FERC Project boundaries on all Duke Energy-owned, licensed lakes. These guidelines apply to islands on the Catawba-Wateree Project. Their location makes them attractive stops for boaters, yet their small size usually intensifies concerns about user impacts and waste disposal. Public recreation opportunity support is the primary intended use of all Duke Energy-owned islands, except for certain Duke Energy-owned islands with special management considerations (e.g., cultural resources, heron rookeries, safety concerns, etc.).

Duke Energy allows the boating public to pursue lawful recreation activities on all Duke Energy-owned islands at the user's own risk, provided that:

1. Fires and Camping – No fires are built and no camping is conducted outside of specifically approved facilities that are managed by a Non-Duke Energy entity that has leased the site for public recreation uses.

2. Nighttime Use – Other than hunting and nighttime bank fishing, no uses occur between 30 minutes after sunset and 30 minutes before the following sunrise, unless specifically allowed by a non-Duke Energy entity that has leased the site for public recreation uses. (*Note: In Mecklenburg and Gaston counties, per the request of local law enforcement, islands are posted as No Trespassing from sunrise to sunset including prohibiting nighttime bank fishing and hunting*.)

3. Site-specific Restrictions – Use of the island has not been restricted for other reasons (e.g., environmental sensitivity, cultural resource protection, history of unruly gatherings).

4. Island Users' Responsibilities – Island users remain responsible for their own safety and activities including, but not limited to:

   a. Taking trash with them or depositing it within trash receptacles provided by a non-Duke Energy entity that has leased the site for public recreation, environmental/scenic protection, or cultural resource protection;

   b. Taking personal property with them;

   c. Ensuring they do not create a public nuisance or public health/safety hazard as declared by a law enforcement or public health official having jurisdictional authority;

   d. Ensuring no trees are cut;

   e. Ensuring no structures are built, unless specifically authorized in writing by DE-LS; and

   f. Ensuring no removal of natural vegetation or cultural resources (artifacts).

F. Hunting and Trapping

1. Compliance with Regulations – Both hunting and trapping are public recreation activities. Hunting and trapping may be pursued at the user's own risk within the full pond contour or on Duke Energy-owned islands within lakes operated by Duke Energy. All such hunting and trapping must be done in accordance with the applicable federal, state, and local regulations.

2. Facilities – Except for construction of duck blinds (for waterfowl hunting), no other facility construction will be permitted within the Project Boundaries for the sole purpose of supporting hunting or trapping.

3. Duck Blinds – Duck blinds must be constructed within and as close to the full pond contour as reasonably attainable. In no cases shall they extend beyond one-third the distance to the opposite shoreline or 120 ft from the full pond contour, whichever is more restrictive. Duck blinds that are located such that water depth would be greater than six ft with the lake at its full pond level must also be fitted with reflectors. Duck blinds must also include a conspicuously located weatherproof marking that clearly identifies the name, address, and phone number of the individual or group responsible for the blind. Duck blinds may be used by any hunter(s) at any time allowed by law and are used on a first-come, first-served basis. Duck blind owners, however, must ensure the blind is maintained in a state of good repair and must remove it in its entirety if it's not planned to be used during the next waterfowl season or if directed to do so by Duke Energy or the state wildlife agency.

4. Traps – Traps must not injure other lake users or pets owned by lake neighbors. Leg-hold traps and snares are specifically prohibited. Traps must be checked regularly during use according to state law and must be removed when not in use or when directed to do so by Duke Energy or the state wildlife agency. Traps must also be fitted with a weatherproof marking providing the name, address, and phone number of the responsible party.

G. Handling of Lakeside Buffers, Building Setbacks, and Minimum Lot Sizes

Maintenance of vegetated lakeside buffers is an important factor in protecting and enhancing a lake's values. Buffers primarily filter runoff and can help reduce shoreline erosion when vegetation extends to the shoreline, thus helping to reduce sedimentation and protect water quality. They also provide wildlife corridors and habitat and can enhance recreational opportunities.

1. With regard to lakeside buffer policies, Duke Energy:

   a. Supports maintaining existing buffers in their natural vegetated state, except where necessary to operate its electric business; where limited pruning, topping, thinning, or clearing is necessary to facilitate reasonable access to Duke Energy-approved, water-dependent structures; to provide nominal width pathways, trails, and walkways to allow recreation access or to provide reasonable views of the water from adjoining properties; all such vegetation removal being done in accordance with the Vegetation Area Management Requirements (see Section 8) and any applicable ordinances.

   b. Encourages lake use permit applicants to plan their work to avoid and minimize buffer impacts to the maximum practicable extent.

c. Reserves the right to delay or refuse lake use permit approval, cancel existing permits, or take other necessary actions when adjoining property owners violate buffer restrictions or the vegetation removal or erosion control criteria within local buffer ordinances.

d. Will not allow vegetation removal in some specifically designated areas (e.g., areas classified as Environmental on the SMP) to support non-public projects.

e. Participates in development of local buffer ordinances.

f. Will not support releasing adjoining property owners from buffer regulation requirements including, but not limited to, providing release statements, unless it is very clear that every effort has been made by the adjoining property owner to alter their plans to avoid/minimize the buffer disturbance.

2. With regard to building setbacks and minimum lot size policies, Duke Energy will not become involved in the practice by some jurisdictions of using land within the full pond contour of a Duke Energy-owned lake as land area for consideration toward meeting minimum lot size or building setback regulations, even if Duke Energy only holds a flowage easement on the lakebed tract in question.

H. Native Shoreline and Aquatic Vegetation Management

1. Shoreline and aquatic plants are important components of the aquatic life in lakes, rivers, and streams. They provide a number of contributions to the overall health of a water body including:

a. Food and shelter to many shoreline and aquatic animals;

b. Use of nutrients from land surface runoff, thus helping to maintain good water quality;

c. Improved clarity by allowing suspended silt and clay particles to settle out; and

d. Increase dissolved oxygen levels in the water and thus supporting aquatic life.

2. Growth of native aquatic and shoreline plants is preferred to the growth of exotic (i.e., non-native) species.

a. Shoreline stabilization using native plants, in areas where shoreline slope and wave energy are compatible with plantings, will normally be successful if the activity is carefully planned and carried out.

3. Duke Energy supports the planting of native North Carolina and South Carolina plant species within and adjoining the full pond contours of Duke Energy-owned lakes for the purposes of shoreline stabilization or establishing or restoring wildlife/fisheries habitat.

4. Duke Energy will not authorize the planting of any plant species within the full pond contour of any Duke Energy-owned lake or on Duke Energy-owned shoreline property that is not native to North Carolina and South Carolina or is not otherwise approved by Duke Energy.

5. Plans for the introduction of vegetation within the full pond contour of a Duke Energy-owned lake or on Duke Energy property must be submitted in writing to DE-LS. Plans must contain a species list of the proposed plant species to be used and a planting diagram and schedule. Plant species selection and schedules should consider site conditions to optimize survival.

6. Duke Energy will not authorize removal of native aquatic vegetation unless it is necessary for continued lake access (e.g., swimming areas). In these specific instances, removal may be allowed, provided that removal of only vegetation necessary for limited access in specifically identified areas is approved in writing by DE-LS.

I. Contractor Use of Duke Energy-owned Project Recreation Sites

Duke Energy is required under the license granted by the FERC for the FERC licensed Projects to arrange for the construction, maintenance, and management of Project Recreation Sites. As licensee, one of Duke Energy's primary responsibilities for management of these areas is to ensure that any activity at the Project Recreation Sites does not prohibit or interfere with the public's use of the area for boating, fishing, or other authorized recreational uses.

Duke Energy recognizes the service provided by lake construction contractors to project-front property owners (e.g., commercial marina operators, individual pier owners) for facility construction/maintenance and shoreline stabilization activities, and the necessity for lake access for these activities while minimizing environmental impacts. Duke Energy further recognizes that these Project Recreation Sites provide a convenient means for lake construction contractors to obtain access to the lakes to carry out their activities. However, contractors' use of Project Recreation Sites can potentially interfere with the public's use of the Project Recreation Sites, cause damage to the areas, and create liability concerns for Duke Energy. Therefore, conditional use of these areas is primarily being offered to allow a point of access to the lake with only very limited availability of the site for minor approved staging activities.

To ensure that contractors' use of the Project Recreation Sites does not prohibit or hinder the public from using the Project Recreation Sites in the manner intended and to address the other items noted above, DE-LS has implemented a number of requirements regarding contractors' use of the Project Recreation Sites. In general, authorization for generic limited use of the area may be requested for an entire year. Otherwise, special permits with specific concessions will be

required for more complex work activities. Duke Energy will only consider allowing use of the Project Recreation Sites to provide a point of access for individual construction activities if the respective lake construction contractor complies with the following requirements:

1. Metal Cable Anchors – No cable anchors will be allowed in any location on the Project Recreation Site.

2. Launching Ramps – Damage to ramps may occur as a result of contractors using these ramps to load or unload heavy equipment and materials such as tractor-trailers, loaders, tractors, pole-trailers, tandem-axle trucks, etc. These ramps were designed and built for boat launching and retrieval only and are generally not intended to support heavy equipment. These ramps are not to be used for any activity other than that included in the Special Use Permit. In no event shall rip rap or other rock be loaded, unloaded, or transferred on the Project Recreation Site, including the boat ramp(s).

3. Prohibited Activities – DE-LS has allowed the Project Recreation Sites to be used as staging areas, as a courtesy to lake construction contractors and adjoining property owners, as long as the work being performed did not interfere with public recreation and access. Duke Energy and the North Carolina Wildlife Resources Commission (for Duke-owned Project Recreation Sites in NC) will continue to allow permitted use of these areas with the understanding that the following work practices are not allowed:

    a. Parking commercial vehicles – All contractor vehicles must be parked in designated spaces. Parking will be allowed in the turnarounds long enough to unload material, at which time the vehicle will need to be moved to a designated space.

    b. Leaving docks/equipment unattended – Docks and equipment will not be left unattended at the Project Recreation Sites at any time.

    c. Restricting public access – Structures and/or materials will not be placed on the Project Recreation Site or within the lake in a manner that restricts recreational use by the public.

    d. Using the area during hours of primary recreation – The area shall not be used by contractors from 9:00am–6:00pm on weekends and holidays during the period from April 1 through September 30.

    e. Using heavy equipment – Use of heavy equipment is generally not permitted on the Project Recreation Site. Permission is not granted to use the boat ramps for any activity other than that specified in the Special Use Permit.

    f. Loading, unloading, or transfer of rip-rap or other rock – In no event shall rip-rap or other rock be loaded, unloaded, or transferred on the Project Recreation Site, including the boat ramp(s).

g. Using the area for more than point of access – Use of the area is primarily for access to the lake. Staging activities are not permitted unless specified and approved by NCWRC in the Special Use Permit.

h. Demolition activities – Debris may be loaded onto trailers for removal from the lake utilizing the boat ramp as a point of access, but demolition activities are prohibited at the Project Recreation Site.

i. Clearing vegetation and other damage – Removal of any vegetation from the Project Recreation Site is prohibited. In no event shall use of the area result in damage to Project Recreation Site facilities including, but not limited to, entrance roads, parking lots, turn-arounds, ramps, piers, pilings, signs, landscaping, and shoreline stabilization (including bioengineering).

j. Encroaching in front of adjoining property – Materials and/or structures shall not encroach across the imaginary projection of the property line between the Project Recreation Site and any adjoining property.

4. Existing Conditions – Contractors are expected to leave the area(s) in the same or better condition as when they arrived by removing all their equipment and materials, and removing any trash and construction debris they generate. Contractors are also expected to immediately report and make arrangements for reimbursement for any damage they cause as a result of utilizing the site. Duke Energy considers commercial use of the areas to be a privilege that can and will be revoked individually or as a whole for any reason if deemed necessary by DE-LS, the applicable wildlife resource management agency, or the Project Recreation Site lessee.

5. Insurance – Contractors must provide each year to DE-LS, prior to long-term Project Recreation Site use, a certificate of insurance endorsed to add the NCWRC (for use of Duke-owned Project Recreation Sites in NC) and Duke Energy as an additional insured including waivers of any right of subrogation of the insurers against the NCWRC and Duke Energy, its officers, directors, and employees. Contractors shall and will require each Subcontractor to (a) furnish properly executed certificates of insurance to DE-LS prior to commencement of work, which certificates shall clearly evidence all coverage's required and provide that such insurance shall not be terminated nor expire except on thirty days' prior written notice to DE-LS; (b) maintain such insurance from the time work first commences until completion of the work under this agreement; and (c) replace such certificates for policies expiring prior to completion of work under this agreement.

J. Other Uses of Duke Energy-owned Project Recreation Sites

As Licensee, one of Duke Energy's primary responsibilities for management of the Duke Energy-owned Project Recreation Sites is to ensure that any activity at the areas does not prohibit or interfere with the public's use of the area for boating, fishing, or other authorized

recreational uses. Use of these areas by entities in support of a business (e.g., storage of materials or boats), unless allowed as a Special Event or Contractor Use and identified in an application submitted and approved by DE-LS, is prohibited.

Section 8 – 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 primarily 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. Vegetated shorelines also provide wildlife corridors and habitat and can enhance recreational opportunities. Therefore, DE-LS has developed requirements to protect riparian wildlife corridors on shoreline property within the FERC Project boundaries, in consultation with various lake stakeholders and stakeholder teams, as part of the relicensing process for the Catawba-Wateree Hydroelectric Project (FERC Project No. 2232), and with consideration given to impacts to private landowners with property adjoining the FERC Project Boundaries.

These Vegetated Management Requirements apply to lands within the Project Normal Full Pond Elevations as shown in Figures 8D-1 and 8D-2 of the Shoreline Management Guidelines. Vegetation management requirements for Project Recreation Sites upland of the Normal Full Pond Elevation will be specified in the Project Recreation Management Plan.

A. General

Protection of areas (riparian and terrestrial) for wildlife movement is considered important by state and federal wildlife resource agencies concerned with the potential for development adjoining these environmentally important areas, and consideration should also be given to impacts to private landowners adjoining these areas.

1. The Duke Energy property within the Project Boundaries shall be maintained in a vegetated forested condition, where existing, that is 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.

2. No clearing, thinning, spraying, planting, or sowing of any vegetation, except for removal of hazardous trees in imminent danger of falling on an individual, a structure or a proposed structure (constructed outside the Project Boundaries), or removal of non-native invasive plants and poisonous plants, shall be undertaken by any person or party without written concurrence from DE-LS, unless the alteration is consistent with an approved activity authorized by local ordinance or the Catawba River Riparian Buffer Rules in North Carolina. Non-native invasive plant lists can be found on the Internet at the following addresses:

   http://plants.usda.gov/cgi_bin/topics.cgi?earl=noxious.cgi

http://www.nps.gov/plants/alien/

B. Vegetation Planting

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

1. Vegetation native to the Piedmont region shall be required. (*Note: A sample plant list of commonly acceptable vegetation native to the Piedmont Region is available from DE-LS.*)

2. Native vegetation beneficial to wildlife shall be encouraged.

3. Turf grasses (e.g., fescue, Bermuda) shall not be planted and may not be allowed to become permanently established.

4. Native ground cover other than permanent turf grasses may be planted as an enhancement to existing native vegetation.

5. Permanent grasses (not including turf grasses) and other native vegetative cover may be permitted in conjunction with shoreline stabilization projects with written concurrence from DE-LS.

C. Vegetation Removal and Disturbance – General

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

1. Hand-Held Tools – Clearing, thinning, and pruning shall generally be accomplished with hand-held tools.

2. Mechanical Clearing – 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 by DE-LS, 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.

3. Forest Floor – All soil and existing forest floor leaf and humus layers shall remain undisturbed and intact except for the construction of footpaths, authorized clearing, or the minimum disturbance needed to stabilize shoreline or install a DE-LS-approved structure.

4. Footpaths – Footpaths for individual lots shall be no more than four ft wide and should be designed in a winding manner, avoiding trees (> 3 inches *diameter at breast height*

[dbh]) (see Glossary) and/or stepped to prevent surface runoff and erosion. The least damaging alternative that will prevent erosion and sedimentation shall be selected.

5. Standing Trees – Standing trees that are dead, diseased, and in imminent danger of falling on an individual or structure may be removed without specific written concurrence from DE-LS. Dead trees that do not pose a hazard can provide habitat for wildlife, and adjoining property owners are encouraged to leave dead large diameter trees standing whenever possible.

6. Fallen Trees – Trees that fall into the lake and do not block or unnecessarily restrict navigational access should be left in place to benefit fish and/or wildlife.

7. Fallen Trees as Fish Habitat – Trees that are allowed to be cut from the land or shoreline, and where there is a desire to create fish habitat, should be securely anchored along the shoreline to improve fish and/or wildlife habitat or placed in the buffer as a downed log. Trees should be securely attached or anchored to prevent movement away from the shoreline. Trees that need to be cut but are away from the shoreline should be placed within the buffer to serve as downed logs.

8. Viewshed Management – Standing live trees (> 3 inches dbh) that are intentionally removed for the creation of viewsheds or access paths shall be replaced by a quantity of trees totaling the diameter of the tree removed. Replacement trees are not to be less than two inches in diameter (e.g., three 2-inch trees may replace one 6-inch tree). Diameter shall be measured at breast height (dbh) four and a half ft 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 and sub-canopy trees should be replaced with similar sub-canopy species). Soil types, soil moisture, and shade tolerance should be considered when selecting replacement trees.

9. Pruning – Individual trees may not be pruned except for viewsheds and access paths as provided below.

10. Debris Removal Following Storms – 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.

11. Grubbing or Grinding Tree Stumps – Grubbing or grinding of tree stumps of any size is not allowed except in the establishment of footpaths (large trees > 10 dbh must be avoided) and as approved as part of authorized stabilization activities.

12. Herbicide Use – Chemicals (herbicides) approved for use in water shall not be used to kill native non-invasive vegetation. Chemicals (herbicides) approved for use on land shall

not be used to kill native non-invasive vegetation except poison ivy, poison sumac, and/or poison oak or exotic species listed in the NCDNCR Exotic Plant Guidelines #30 as allowed in the Catawba River Basin Permanent Riparian Buffer Protection Rules.

13. Aquatic Herbicides – Chemical control of vegetation in or over water must be by approved aquatic herbicides. In North Carolina, approved aquatic herbicides applied to a public water body must be applied by a state certified aquatic pesticide applicator. In South Carolina, herbicides applied to a water body used for public drinking water must have permission from the SCDHEC. In addition, all aquatic herbicide labels require applicators to notify a state natural resource agency before their application of a herbicide to public waters.

D. 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 (Figures 8D-1 through 8D-4).

1. A single viewshed may be established in consultation with a DE-LS representative once a home or building is constructed.

2. An on-site meeting between the DE-LS 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.

3. Selective pruning/limbing may be allowed in accordance with the requirements of the Catawba River Basin Permanent Riparian Buffer Protection Rules to facilitate a viewshed. Native shrubs and vines shall not be pruned from the ground to a height of four ft.

4. A joint single viewshed may be created by two adjoining property owners with written concurrence from DE-LS.

5. Minimal topping and removal of only selected trees will be considered to establish a viewshed.

6. Viewsheds will not be allowed to be created within the Project Boundaries within the confines of adjoining areas designated as Environmental on the SMP.

Notes

1. Eminent Domain – 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) are not subject to the provisions of this Section. However, such activities, where practical, should be conducted in a manner that is consistent with these requirements.

2. Approvals Prior to Adoption of Requirements – The provisions of these requirements shall not apply to DE-LS-approved maintenance or rebuild activities or activities (e.g., pier/docks, stabilization, mowing) which were allowed and/or approved by DE-LS prior to September 1, 2006.

3. North Carolina Catawba River Basin Permanent Riparian Buffer Protection Rules – The Catawba River Basin Permanent Riparian Buffer Protection Rules have been in effect since August 1, 2004 (a temporary rule was in effect from July 1, 2001 until July 31, 2004) in North Carolina. The temporary buffer protection rule and now the permanent rule 15A NCAC 2B.0243 requires maintaining and protecting existing 50-ft wide vegetated riparian (shoreline) areas along the mainstem lake shorelines from Lake James to Lake Wylie. This rule does not require establishment of new buffers unless the existing use in the buffer area changes. The footprints of existing uses such as agriculture, buildings, commercial and other facilities, maintained lawns, and utility lines are exempt. Within this 50 ft of buffer, the first 30 ft closest to the water, referred to as Zone 1, is to remain undisturbed with the exception of certain activities. The outer 20 ft, referred to as Zone 2, must be vegetated, but certain additional uses are allowed.

4. Local Riparian Buffer Ordinances – All local governments that have land use authority along the mainstem of the Catawba River may adopt local riparian buffer ordinances. These local riparian buffer ordinances in North Carolina may be approved by the NCDEQ- Division of Water Resources if it is determined by the Division that the local ordinances provide equal to or greater protection for water quality than the Catawba River Riparian Buffer Rule. Buffer regulations in South Carolina are governed by local ordinance.

Glossary

Activity – Any occupancy or use of lands and waters within the Project Boundaries or Duke Energy-owned peripheral strip.

Annual Average Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD) that the facility would have to operate at continuously for the calendar year in question to withdraw or discharge a given total volume of water. *(Note: See differences between annual peak capacity and ultimate capacity*.)

Annual Peak Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the highest instantaneous raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD) that the facility will reach in a given calendar year. (*Note: See differences between annual average capacity and ultimate capacity*.)

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.

Area of Potential Effect – Term used when considering potential lake use activity effects on historic and archaeological resources and describing the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist.

Boat Cover – A structurally simple device (i.e., frame) with an outer-woven fabric cover that conforms specifically to the size (i.e., length, width, and height) of a single watercraft.

Boat house/Covered Boat Slip – A floating, single-story roofed structure with open sides and designed for long-term or temporary watercraft storage. (*Note: In the past, boathouses could also have enclosed sides, but this practice is no longer authorized.*)

Boat ramp/Marine Railway – An inclined structure extending from the shoreline into the lake for the purpose of launching and retrieving watercraft.

Boat Shelter – A non-floating, single-story roofed structure with open sides and designed for long-term or temporary watercraft storage. (*Note: In the past, boat shelters could also have enclosed sides, but this practice is no longer authorized*.)

Boat Slip – Also referred to simply as a slip, it is an unroofed structure designed for temporary or long-term watercraft storage. A boat slip is normally 10 ft wide by 20 ft long and confined by at least three sides; however, other sizes do exist and fewer than three sides may be confined. Boat slip is synonymous with the term "boat docking location" and means one boat slip can accommodate only one watercraft at a time.

Boat Lift/hoist – A mooring device that lifts the watercraft above the lake level normally utilizing buoyant pontoons or a series of cables and winches. By definition, the area where the boatlift/hoist is located is also considered a boat slip.

Build-out Period – Time period allowed to complete construction, excavation or shoreline stabilization work under an approved Duke Energy lake use permit. The build-out period begins with the date of application approval by DE-LS and ends with the last date of any approved time extensions.

Business/Industrial Access – Lake access that directly supports a privately-owned industrial or commercial business, but which has little to no effect on boating. Examples include, but are not limited to, water intakes and discharges for factories, sand mining operations, certain utility connections, plant/business access roads, and commercial business staging areas.

Catawba-Wateree Hydroelectric Project – A hydroelectric project (also referred to simply as the Project) located on the Catawba and Wateree rivers and their tributaries in North Carolina and South Carolina. The Project consists of 11 hydroelectric developments, each having a reservoir formed by one or more dams and one or more hydroelectric stations. The Project is operated pursuant to a license issued by the FERC (FERC Project No. 2232).

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 Facility – A shoreline classification and the related 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 and yacht clubs are made. (*Note: See Glossary for definitions of True Public Marina, Residential 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 10 watercraft at a time and is intended to serve only the owners or leaseholders of private, project-front lots. (*Note: Common-Use Facilities may not serve off-water lots or 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 use easements, rights-of-way, leases, certain types of user's agreements/permits, or fee title transfers to grant these rights.

Cove Width – Horizontal length of the shortest imaginary line extending from the full pond contour on one side of a cove and connecting to the full pond contour on the opposite side of the

cove. Except for constricted coves, the cove width will not decrease as one moves from the head (i.e., closed end) of the cove to its mouth (i.e., open end).

Critical Reservoir Elevation (CRE) – Unless it is otherwise stated as applying only to a specific intake or type of intake, the Critical Reservoir Elevation is the highest level of water in a reservoir (measured in feet above Mean Sea Level (AMSL) or feet relative to the full pond contour with 100.0 ft. corresponding to full pond) below which any Large Water Intake used for Public Water Supply or industrial uses, or any regional power plant intake located on the reservoir will not operate at its Licensee-approved capacity.

Cut-off Area – Portion of the lake that is physically cut off for navigational purposes from the majority of the lake by a man-made structure (e.g., existing dam, causeway, low bridge) or a natural feature when the lake is at or above its normal target operating level during the peak recreation season.

Diameter at Breast Height (dbh) – The diameter of the stem of a tree measured at 4.5 ft from the ground. On sloping ground, this measurement is taken on the uphill side.

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

Double Handling – The placement of excavated material within the Project Boundaries before final removal.

Earthfill – The placement of unauthorized fill material (soil or rock) within the Project Boundaries.

Easement – The granting or definition of certain rights in real property within the Project Boundaries or on Duke Energy property. Easements are typically handled through the Conveyance Program and are used to regulate activities such as utility lines, roadway crossings, water intakes, and discharges.

Encroachment – Lake use structure or activity, which was placed/done without obtaining the necessary permits/approvals.

Environmental Assessment (EA) – The process of examining proposed projects and their reasonable alternatives for potential environmental impacts prior to making decisions on implementation. The Environmental Assessment document is prepared by the FERC staff or a DE-LS-approved contractor and evaluates the Project's merits and no-action alternatives to determine a conclusion and make appropriate recommendations to the FERC and/or Duke Energy concerning project approval, disapproval, or modification.

Environmental Offset – An area measured laterally along the shoreline that extends 50 ft from an Environmental classification. This area along the shoreline within the Project Boundaries shall remain undisturbed and act as a buffer between the Environmental classification and any future

lake use permitting activities except for maintenance and access to previously approved facilities.

Environmentally-Important Areas – Areas along the shoreline within the Project Boundaries that provide important habitat for fish and wildlife. These areas may have additional lake use restrictions because of their unique character.

Excavation/Dredging – Removal of soil or rock material, either by hand or with mechanized equipment, from within the Project Boundaries by permit only.

FERC – Federal Energy Regulatory Commission. The 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 Boundaries by the applicant.

Facility Emergency Repair – The immediate and major repair of an existing facility to prevent imminent loss of personnel property, human life, or a major environmental incident. The need for a facility emergency repair will typically arise from catastrophic structural failure and the risks are too great to afford going through normal lake use permitting channels. (*Note: Facility owners must notify DE-LS personnel in a timely manner following an emergency repair. Only those repairs needed to stabilize the situation and remove the immediate risks are considered emergency repairs. Any additional modifications or modifications that are not done immediately must go through required permitting channels*.)

Facility Expansion – The modification of an existing facility that results in an increase of its lakeward extension, increases in calculated square footage, an increase in the number of boats it can accommodate, increases in water quantities withdrawn from or discharged to the Project, or an increase in the amount of Project area leased. (*Note: The addition of an uncovered boatlift/hoist within a previously approved slip is not considered an expansion*.)

Facility Maintenance – The ongoing minor repair of an existing permitted facility (i.e., structure or combination of structures) that does not involve repair within a calendar year of more than 25% of a primary component or any combination of primary components (e.g., decking, joists, roof, rafters) with each individual component at or less than 25%. In the alternative, the complete repair within a calendar year of one single primary component (e.g., decking, joists, roof, rafters) of that facility in any amount. In the alternative, the complete repair within a calendar year of one single structure (e.g., boathouse, float, stationary pier) in a multi-structure facility. Replacement of flotation and pilings, in any amount, is considered maintenance. (*Note: Maintenance activities require application and written authorization from DE-LS prior to initiation*.)

Facility Rebuild – The total replacement of an entire existing, permitted facility or replacement of more than 25% of a primary component (e.g., decking, joists, roof, rafters) when rebuilding a

single component (or any combination of components when rebuilding more than one component of an existing permitted facility) or any other repair or replacement of more than a single structure in a multi-structure facility replaced within a calendar year. Facility rebuilds are not allowed for non-confirming structures, only facility maintenance.

Facility Reconfiguration – The modification of an existing facility that is not considered a Facility Expansion but merely a rearrangement of the orientation of the combination of structures that comprise a permitted facility. Reconfiguration is only allowed with permitted facilities that comply with the current guidelines in effect at the time of the proposed reconfiguration. (*Note: Reconfiguration requests are considered to be minor in nature and similar to Facility Maintenance. However, since on-site inspections are required for reconfiguration requests, the same fees will apply as those charged for a Facility Rebuild*.)

Facility Reduction – The removal of any portion of a permitted facility from within the Project Boundaries. (*Note: The reduction must be approved in writing by DE-LS and does not require the entire facility to comply with the guidelines in effect at the time of reduction for non-conforming facilities*.)

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.

Float – A floating platform for use by swimmers or for docking watercraft, which is attached to a permitted structure.

Flood Easement – An easement (typically covering 10 or more ft vertical above full pond elevation) that is reserved on a tract-by-tract basis to protect Duke Energy from liability claims following high water events and to reserve certain rights necessary for operation of the company's electric business.

Full Pond Elevation – The elevation, measured in feet above mean sea level (ft AMSL), of the top of a lake's spillway or the top of the floodgates (if applicable).

Historic Property (HP) – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places.

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

Implicit Uses – Lake uses that are implied parts of Duke Energy's lake access philosophy and therefore do not require any specific written approval from Duke Energy (see Section 7A.).

Individual Private Facility – 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, boathouses, boat shelters, floats, boat slips, existing boat ramps, and marine railways. (*Note:*

Individual private facilities may not serve multiple project-front lots, off-water lots, or any lot containing a multi-family dwelling.)

Lake Access Service Programs – Broad-based Duke Energy programs that are needed as a result of allowed lake access or that directly benefit lake users (e.g., lake use permitting programs, mosquito and aquatic weed control programs, lake facility operation and maintenance programs, shoreline management and public recreation planning programs, public safety programs, dam repair programs).

Lake Access – Ability to use land or water within the Project Boundaries or Duke Energy-owned peripheral strip of a Duke Energy lake. Uses include, but are not limited to, piers, existing boat ramps and marine railways, mooring buoys, boathouses, boat shelters, boatlifts, marinas, utility line, roadway and other infrastructure rights-of-way, excavation areas, 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 full pond contour, Project Boundaries, or Duke Energy-owned peripheral strip of a Duke Energy lake.

Large Water Intake – Any water intake (e.g., public water supply, industrial, agricultural, power plant, etc.) having a maximum instantaneous capacity greater than or equal to one Million Gallons per Day (MGD) that withdraws water from the Catawba-Wateree River Basin..

Licensee – The entity holding a hydroelectric project's operating license from the FERC at any given time. As of July 2006, the Licensee for the Catawba-Wateree Hydro Project (FERC No. 2232) is Duke Power Company LLC, doing business as Duke Energy Carolinas, LLC.

Low Inflow Protocol (LIP) – The written protocol (see Appendix C: Low Inflow Protocol) that provides procedures for how the Project will be operated by the Licensee and how other water users should respond during low inflow periods. The LIP was developed on the basis that all parties with interests in water quantity will reduce their water consumption as needed and therefore share the responsibility of conserving the limited water supply. The LIP also identifies communications channels to help coordinate between water users.

Maintenance Excavation – The removal of accumulated sand/sediments, needed to restore the necessary water depth to allow the continued use of a previously approved lake use activity (not including facility expansion).

Marine Railway – An inclined structure consisting of a combination of tracks and a cradle, normally extending from a boathouse or boat shelter, for the purpose of launching and retrieving watercraft.

Minimum Lease/Easement Area – The conveyed area typically associated with leases or easements of Project property that includes the minimum area necessary for boating access. This maneuvering area consists of 2 times the slip length at the point of slip ingress/egress and 15 ft along all other sides of the facility.

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 should first seek to avoid any such impacts. If complete avoidance is not feasible or practicable, then redesigns should be explored to minimize impacts before mitigation is considered*.)

Non-Conforming Structure – An existing, previously permitted lake structure that does not comply with later revisions of the SMG or other permitting policies.

Non-Project Uses – Term used by the FERC to identify 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 Drawdown – The vertical distance in feet from the full pond elevation to the lowest lake elevation that is normally targeted in a calendar year. (*Note: The actual, lowest lake level reached in a given year may vary significantly from the normal drawdown target due to a number of factors including, but not limited to, weather conditions and electricity demand*.)

Normal Full Pond Elevation – Also referred to simply as full pond, this is the level of a reservoir that corresponds to the point at which water would first begin to spill from the reservoir's dam(s) if the licensee took no action. This level corresponds to the lowest point along the top of the spillway (including flashboards) for reservoirs without floodgates and to the lowest point along the top of the floodgates for reservoirs that have them. To avoid confusion among the many reservoirs the licensee operates; it has adopted the practice of referring to the Full Pond Elevation for all of its reservoirs as equal to 100.0 ft relative.

Normal Maximum Elevation – The level of a reservoir, measured in feet above mean sea level (ft AMSL) or feet relative to the full pond contour with 100.0 ft corresponding to full pond, that defines the top of the reservoir's Normal Operating Range for a given day of the year. If inflows and outflows to the reservoir are kept within some reasonable range of the average or expected amounts, hydroelectric project equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions above the Normal Maximum Elevation should not occur.

Normal Minimum Elevation – The level of a reservoir, measured in feet above mean sea level (ft AMSL) or feet relative to the full pond contour with 100.0 ft corresponding to full pond, that defines the bottom of the reservoir's Normal Operating Range for a given day of the year. If inflows and outflows to the reservoir are kept within some reasonable range of the average or

expected amounts, hydroelectric project equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions below the Normal Minimum Elevation should not occur.

Normal Operating Range for Lake Levels – The band of reservoir levels within which the Licensee normally attempts to maintain a given reservoir that it operates on a given day. Each reservoir has its own specific Normal Operating Range, and that range is bounded by a Normal Maximum Elevation and a Normal Minimum Elevation. If inflows and outflows to the reservoir are kept within some reasonable range of the average or expected amounts, hydroelectric project equipment is operating properly, and no protocols for abnormal conditions have been implemented, reservoir level excursions outside of the Normal Operating Range should not occur.

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 Boundaries, 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 full pond elevation of some Duke Energy lakes. In certain areas there may be little to no peripheral strip, whereas in others, such as portions of Belews Lake, the peripheral strip may extend to a contour 10 to 15 vertical ft or more above full pond elevation. Except for the implicit uses, all uses of land and water within the peripheral strip must be authorized by Duke Energy.

Permanent Water Intake – Any intake (e.g., power plant, public water supply, industrial) that is used as a primary means of transporting water to immobile processing facilities.

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

Pier Zone – A planning tool used by some real estate developers to aid property owners in defining an area in which water-based facilities may be constructed. Where they exist, these pier zones will often be incorporated into subdivision covenants. The use of pier zones does not supersede the requirements of the applicable SMG criteria, ordinances, or regulations (e.g., General Permits in South Carolina and county requirements limiting crossing of projected property lines, pier lengths). Duke Energy also does not handle enforcement of pier zones and the presence of a pier zone does not guarantee any form of lake access will actually be approved by Duke Energy.

Power Line Rights-of-Way – Strip of land identified by an easement, fee-simple 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, slips in Residential Marina Facilities, slips in marinas developed for clubs, recreation areas for employees of a specific company, slips for non-transient campgrounds (i.e., rent for more than 14 days), heat exchange coil zones for heat pumps, and private roadways.

Private Roadway – Any combination of roads, causeways, bridges, etc. that do not meet the requirements of a public roadway.

Project Boundaries – The area surrounding hydroelectric project facilities and features necessary to operate the Project as delineated in Exhibit F, G or K of the FERC license.

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 Boundaries, 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.

Property Reclamation – Adding significant fill material, beyond the customary minimum amount of backfilling necessary for a Duke Energy-permitted shoreline stabilization activity, to re-establish dry land in areas where shoreline erosion has caused the loss of dry land owned by adjoining property owners.

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 Project Recreation Sites, 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.

Public Water Supply – any water delivery system owned and/or operated by any governmental or private entity that utilizes waters from the Catawba-Wateree River Basin for the public interest including drinking water; residential, commercial, industrial, and institutional uses; irrigation, and/or other public uses.

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*.)

Residential Marina Facility – A shoreline classification that involves the 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 residential property owners (e.g., off-water and project-front lots, non-transient campgrounds, multi-family dwellings). Residential properties associated with this classification include townhouses, condominiums, apartments, some campgrounds, and subdivision access lots.

Rip-Rap – Large crushed stone Class B or larger.

Seawall – Also called a retaining wall or bulkhead, a seawall is a vertical wall constructed at or near the Project Boundaries for shoreline stabilization. Seawalls commonly consist of treated wood, masonry, formed concrete, or sheet piling.

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 Management Guidelines (SMG) – The written document that contains conditions and limitations required for certain types of access to the Project's shoreline properties, and also guidelines designed to meet the Licensee's regulatory requirements, protect the Licensee's hydroelectric generation interests, protect the scenic, cultural and environmental values of the Project's shoreline property, provide recreational benefits to the general public, and provide a guide to adjacent property owners on permitted uses of Project properties. The Shoreline Management Guidelines are often provided as additional information within the Shoreline Management Plan and provide permitting criteria that are applied on a site-specific basis.

Shoreline Management Plan (SMP) – A written document that provides guidance to the Licensee for implementing a comprehensive lake use permitting program to manage uses of lands and waters within the FERC Project Boundaries. Components of the Shoreline Management Plan may include but are not limited to programmatic agreements for addressing specific issues, maps depicting classifications of the shoreline of each reservoir, and lake use permitting restrictions associated with each classification.

Shoreline Stabilization Expansion – An increase in the linear distance of shoreline stabilized, regardless of the stabilization technique (i.e., bulkhead, rip-rap, landscape plantings), and/or an increase in the vertical height of bulkheads.

Shoreline Stabilization Maintenance – The ongoing minor repair of existing permitted shoreline stabilization that does not involve repair of more than 25% of a primary component or any combination of primary components (e.g., pilings, deadmen, anchors, blocks, boards) with each individual component at or less than 25% or complete repair of one single primary component (e.g., pilings, deadmen, anchors, blocks, boards) of that facility in any amount, within a calendar year. Replenishing existing rip-rap or landscape plantings within the confines of the originally stabilized area of the bank is considered maintenance. (*Note: Maintenance activities are minor in nature compared to rebuilds, and require application and written authorization from DE-LS prior to initiation*.)

If a primary component or any combination of primary components (with each individual component at or less than 25%) becomes in such a state of disrepair that more than 25% repair or complete repair of more than one single component within a calendar year is the only practical alternative, then the work would be considered a rebuild and not maintenance. (*Note: Of the three types of facility modification – expansion, maintenance, and rebuild – Facility Maintenance is the most minor in nature.*)

Shoreline Stabilization Rebuild – The total replacement of existing, permitted shoreline stabilization or replacement of more than 25% of a primary component (e.g., pilings, deadmen, anchors, blocks, boards) when replacing more than one component of shoreline stabilization within a calendar year.

Small Water Intake – Any water intake (e.g., public water supply, industrial, agricultural, power plant) having a maximum instantaneous capacity less than 1 million gallons per day (MGD).

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 DE-LS directing an immediate halt to an activity within the Project Boundaries 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 DE-LS 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.

Substantial Equity Interest – Financial interest in real property adjoining a Duke Energy lake that significantly exceeds the value of facilities an applicant desires to place within the Project Boundaries or on the Duke Energy-owned peripheral strip. (*Note: To retain full legal compliance avenues, Duke Energy will normally only consider lake use permit requests from applicants who have a substantial equity interest [as determined by Duke Energy in its sole discretion]. With few exceptions, this equity interest must be established through fee-simple ownership of the adjoining property. Easements may be considered as a substantial equity interest where fee-simple ownership is not customary [e.g., for public need projects where the applicant is a public entity]*.)

Temporary Water Intake – Any intake (e.g., irrigation, industrial, agricultural, fire suppression) that is used on an intermittent and/or short-term (less than one year) basis that can have the supply line removed and/or installed in one day.

True Public Marina (TPM) – 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, restrooms, or pump-out facility) 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. (*Exception: There are existing Marina Facilities that are characteristically operated as True Public Marinas although they allow Residential Marina-type access on a very limited basis. These existing marinas may be afforded the same considerations provided new True Public Marina facilities if the number of wetslips and dry storage bays dedicated for Residential Marina-type access is ≤ 10% of the total number of wetslips and dry storage bays within the marina facility and any considerations are approved by DE-LS. This exception only applies to the very limited number of exiting marina facilities that meet the ≤ 10% requirement as of January 1, 2006*.)

Ultimate Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the maximum, instantaneous raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD), that the facility is designed to achieve throughout its design life. (*Note: See differences between annual average capacity and annual peak capacity*.)

Utility Line Crossing – Any combination of wires, cables, or pipelines and their associated structural supports that are used to transport energy, fuel, telecommunications signals, water, wastewater, etc. and that fall within a common maintenance right-of-way which crosses any part

of the FERC Project Boundaries or Duke Energy-owned peripheral strip. Examples include, but are not limited to, transmission, distribution, and retail lines for telephone, telegraph, cable TV, railroad signal, petroleum product, and electric utilities; water mains; and sewer lines.

Variance – Selective deviation from applicable and established permitting policies and criteria to allow a proposed activity's approval. (*Note: Except for project uses and non-project uses for public infrastructure access, Duke Energy will not consider variance requests from its established policies and criteria; and even then, only in cases where there is no other feasible alternative and a variance is clearly the best option for meeting the specific lake user needs while still preserving the DE-LS Goals and Objectives*.)

Violation – Any activity within the Project Boundaries 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.

Water-based Recreational Equipment – Any large recreational equipment placed within the Project Boundaries that is not specifically designed to be used in conjunction with watercraft. (*Note: These items include, but are not limited to, trampolines, sliding and diving boards not permanently attached to a permitted structure, blobs, > three-person towables, and other large inflatable recreational items*.)

Water Toys – Any small recreational equipment that is temporarily placed within the Project Boundaries that is primarily used in conjunction with moving watercraft. (*Note: These items include, but are not limited to, ski and inner tubes, ski bobs, and less than three-person towables*.)

Figures

1 Duke Energy Evaluation Process for Non-Project-Use Requests

1B-1[3] Location of New Commercial Marina Facilities

1B-2 No New or Expanded Facilities within 50-Foot Environmental Area Offset

1B-3 Open Channel Requirements

1B-4 No New or Expanded Marina Facilities in Narrow Coves

1B-5 Minimum Guidance for Metes and Bounds Description of Project Area Lease/Use Agreements for Marina Facilities

1B-6 Open Channel Requirements for New/Expanded Marina Facility

1B-7 Maximum Potential Buildable Area for Marina Facility

2B-1 No New or Expanded Conveyance Activities with 50-Foot Environmental Area Offset

2B-2 Submarine Utility Line and Intake/Outfall Requirements

2B-3 New Non-Public Construction within the FERC Project Boundary or on Any Duke-Owned Peripheral Strip

3B-1 No New Excavation Activities

3B-2 Excavation Activities with 50-Foot Environmental Area Offset for Existing Permitted Facilities Only

[3] Figure number refers first to the Section (e.g., Marina Facilities Program), second to the Paragraph within the Section, and third to the sequential figure number within that Section.

3B-3 Guidance for Minimizing Excavations Needed for a "T" Configuration and an "I" Configuration Facility

3B-4 Guidance for Minimizing Excavations Needed for Single-Slip and Multi-Slip Facilities

3B-5 Guidance for Minimizing Excavations Needed for Maintenance of Single Lane Boat Ramp

4B-1 Typical Duke Energy-Lake Services Property Line Projection

4B-2 Clear Maneuvering Distance for Navigation in Narrow Coves

4B-3 No New or Expanded Private Facilities within 50-Foot Environmental Area Offset

5A-1 Shoreline Stabilization Technique Selection Process

5B-2 Typical Seawall for Shoreline Stabilization

5B-3 Enhance Rip-Rap (with Boulders and Plantings)

5B-4 No New or Expanded Stabilization Activities within 50-Foot Environmental Area Offset

8D-1 C-W[4] Viewshed Guidelines (Steep Slope)

8D-2 C-W Viewshed Guidelines (Gradual Slope)

8D-3 Viewshed Examples

8D-4 Viewshed Examples

[4] C-W refers to the Catawba-Wateree Hydro Project

DUKE ENERGY EVALUATION PROCESS FOR NON-PROJECT-USE REQUESTS

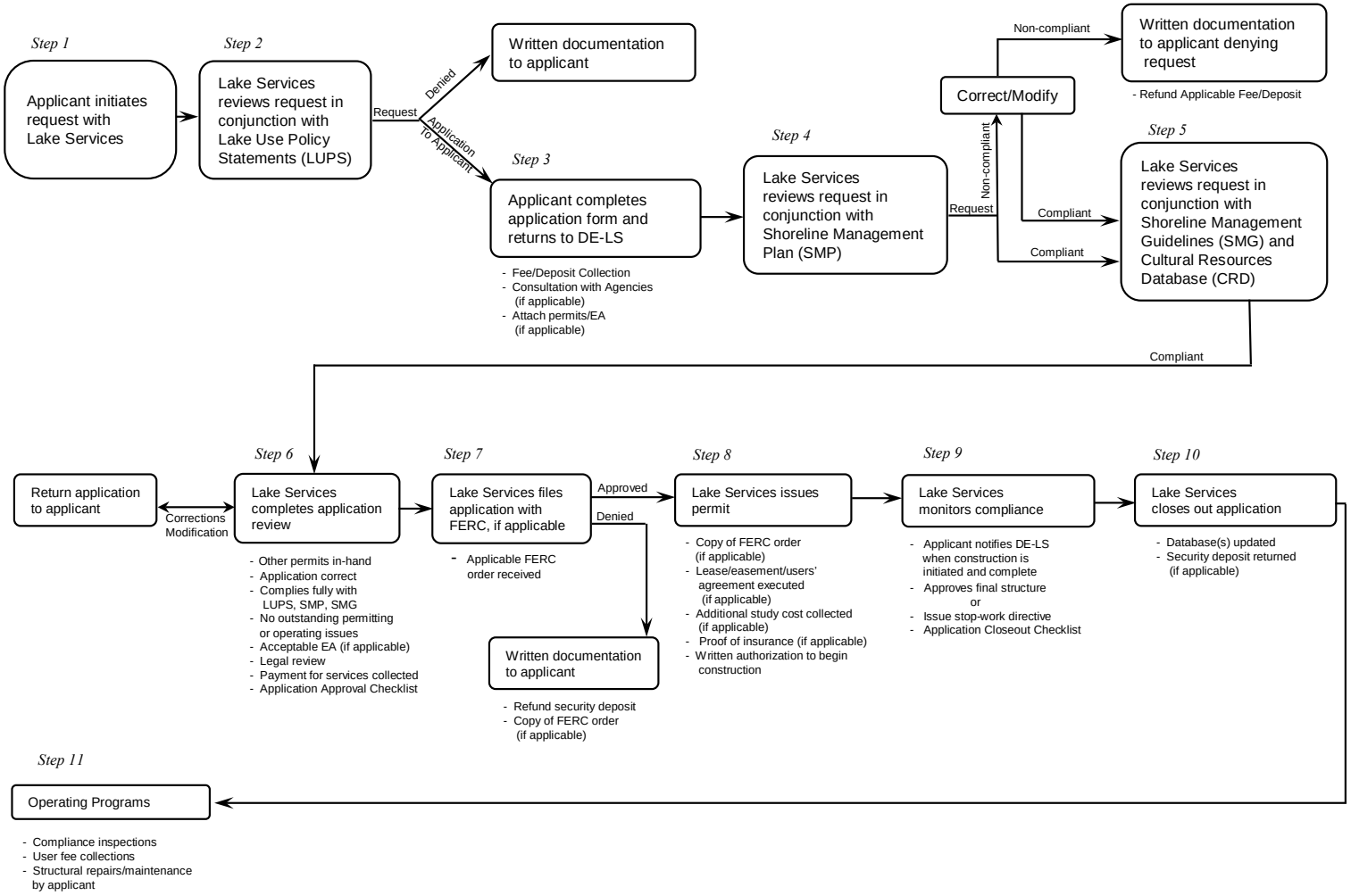
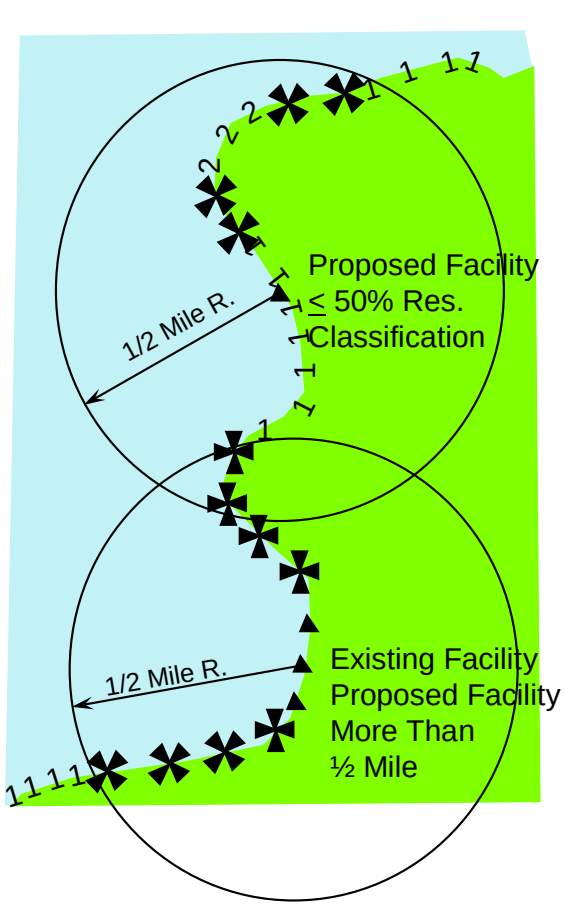


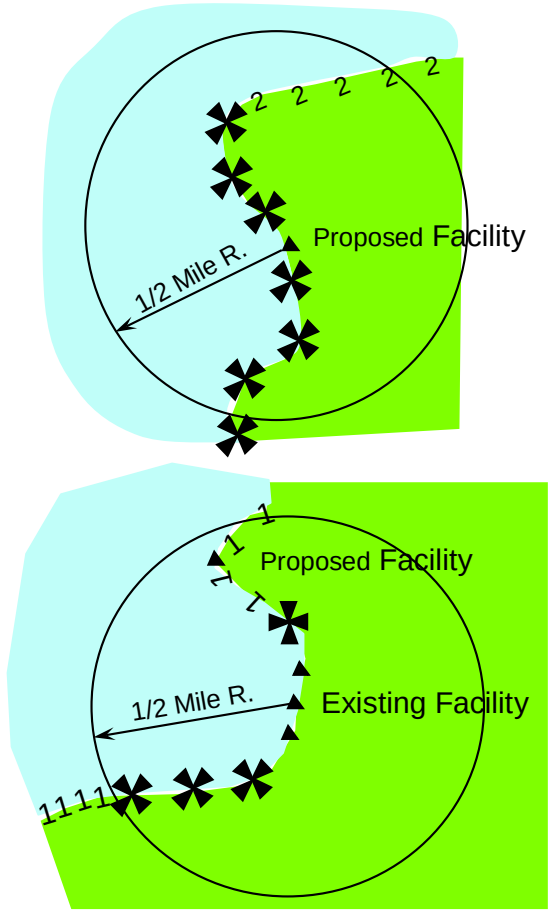
Figure 1

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LOCATION OF NEW COMMERCIAL MARINA FACILITIES



Compliant



Non-Compliant

Figure 1B-1

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NO NEW OR EXPANDED FACILITIES WITHIN 50-FOOT ENVIRONMENTAL AREA OFFSET

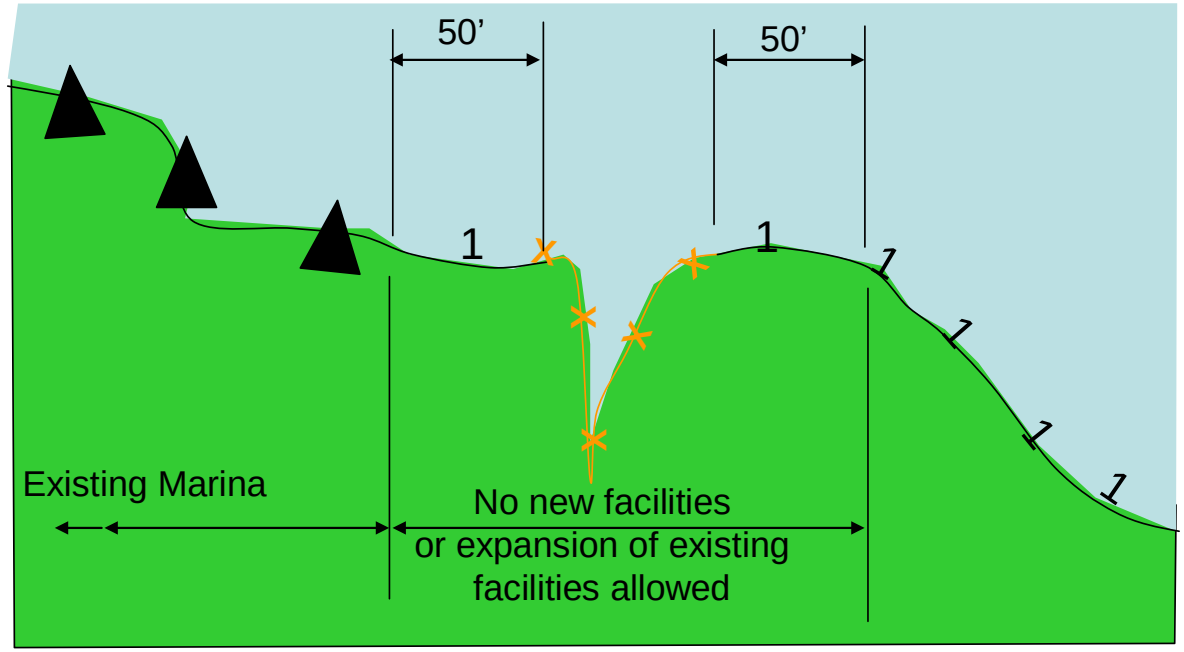
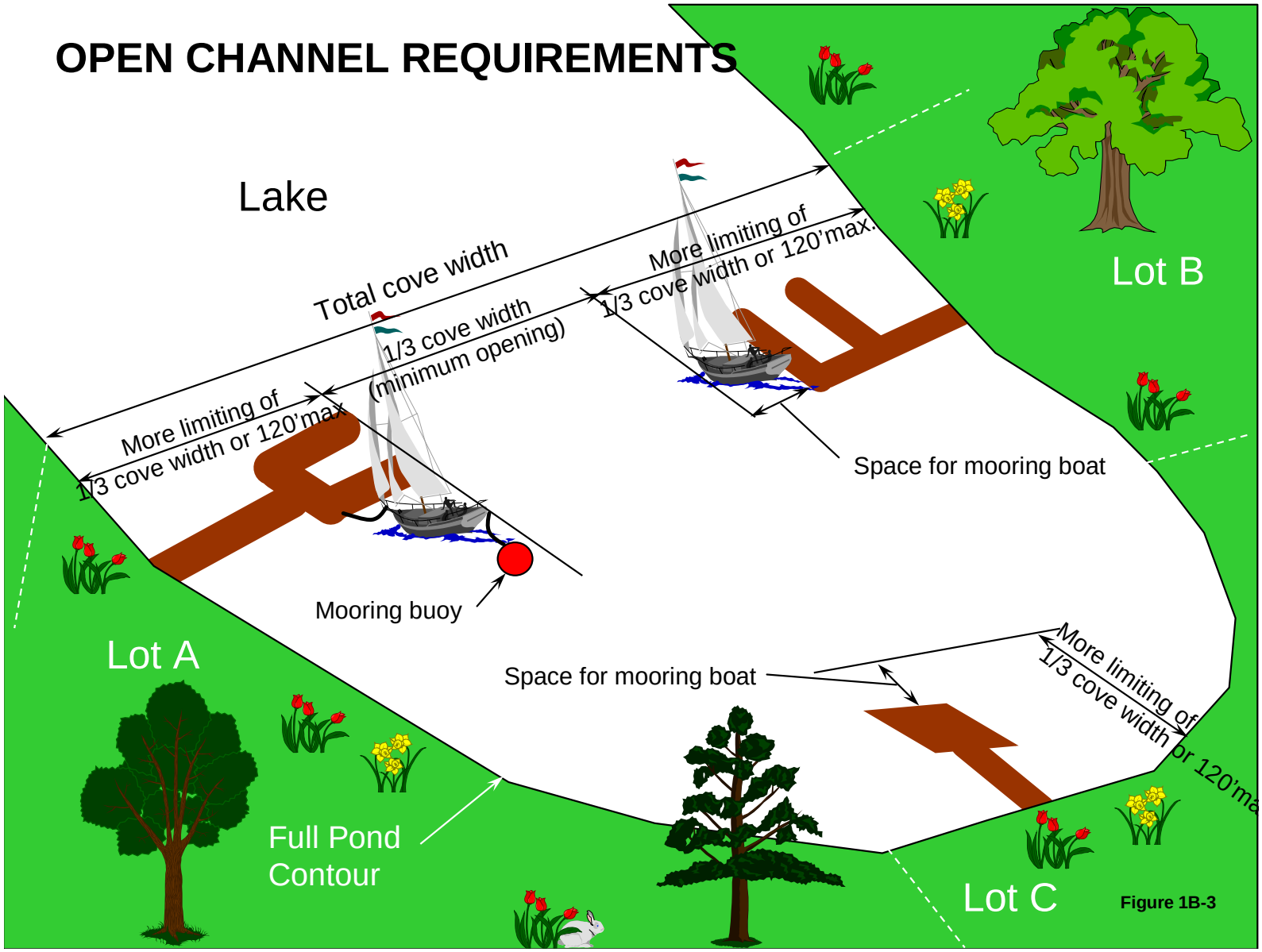
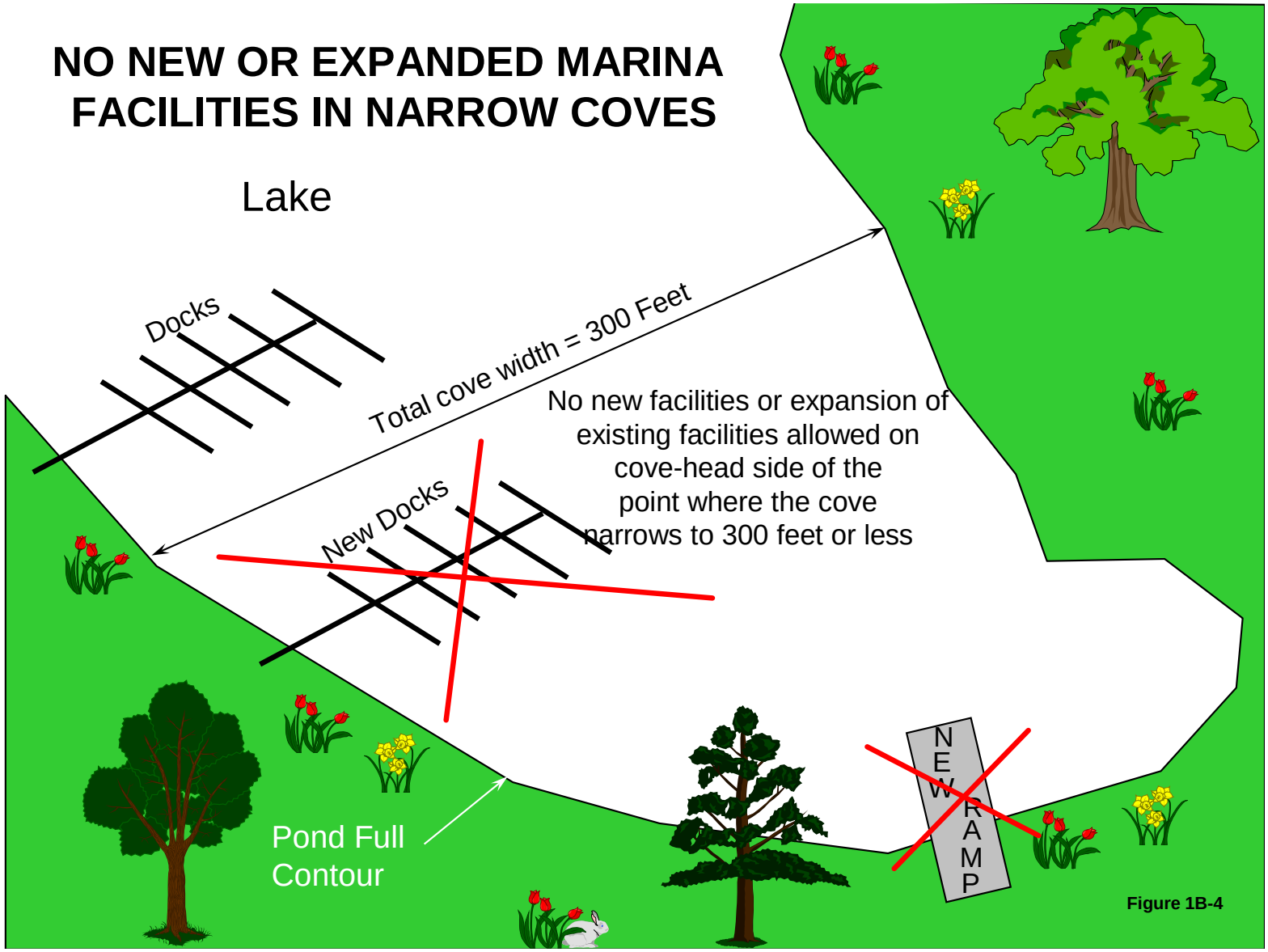


Figure 1B-2

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MINIMUM GUIDANCE FOR METES AND BOUNDS DESCRIPTION OF PROJECT AREA LEASES/USE AGREEMENTS FOR MARINA FACILITIES

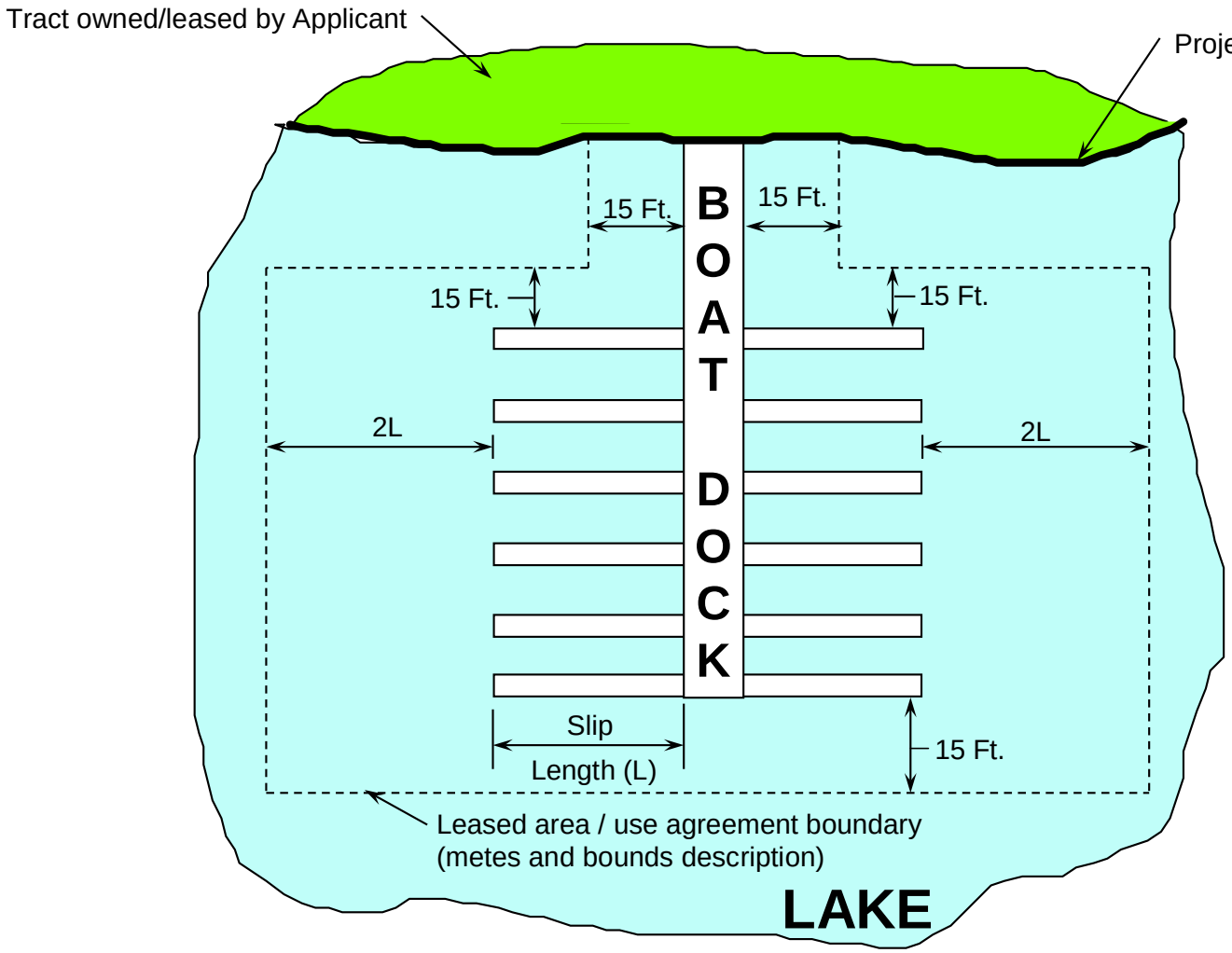


Figure 1B-5

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OPEN CHANNEL REQUIREMENTS FOR NEW/EXPANDING MARINA FACILITY

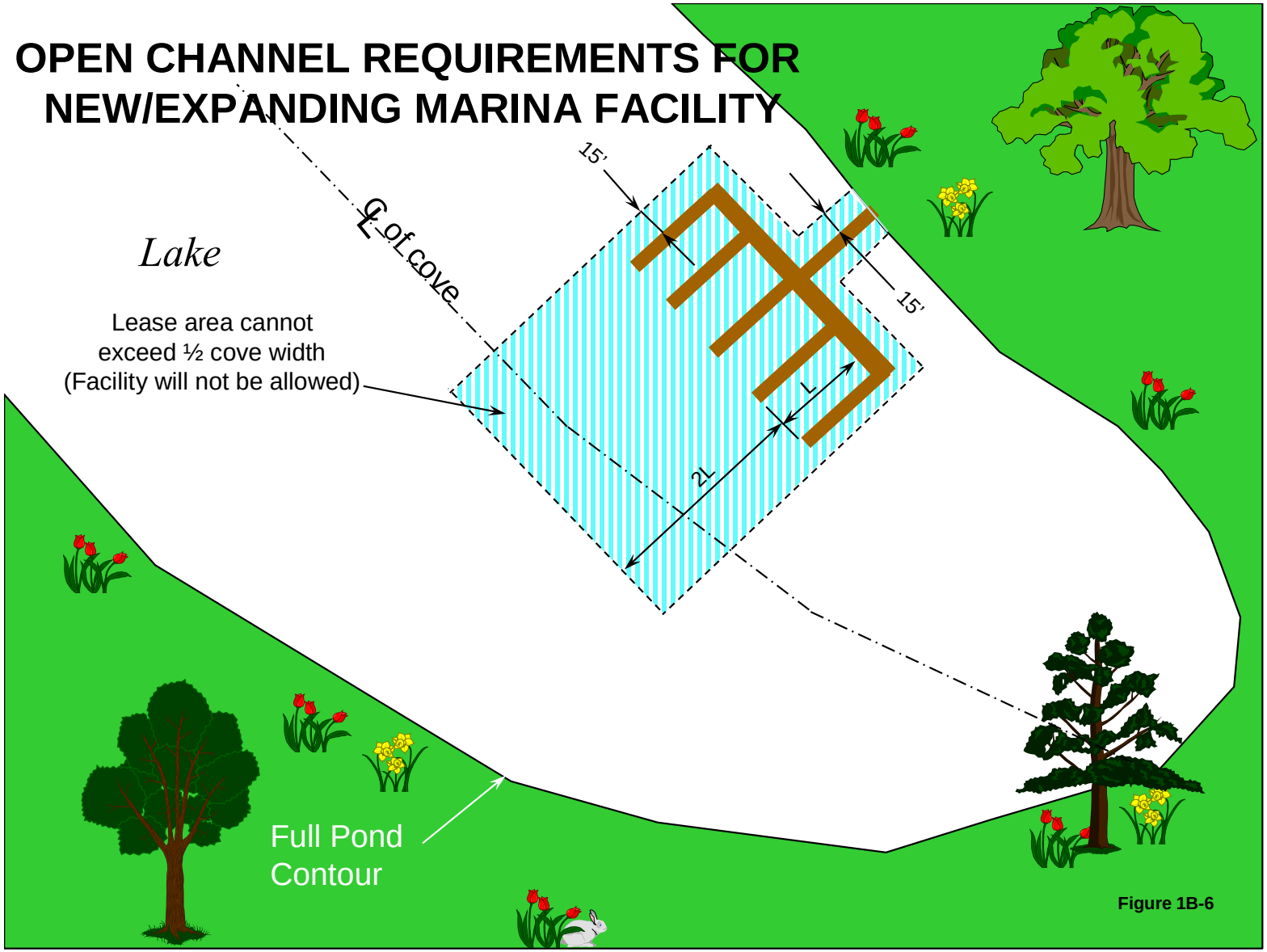


Figure 1B-6

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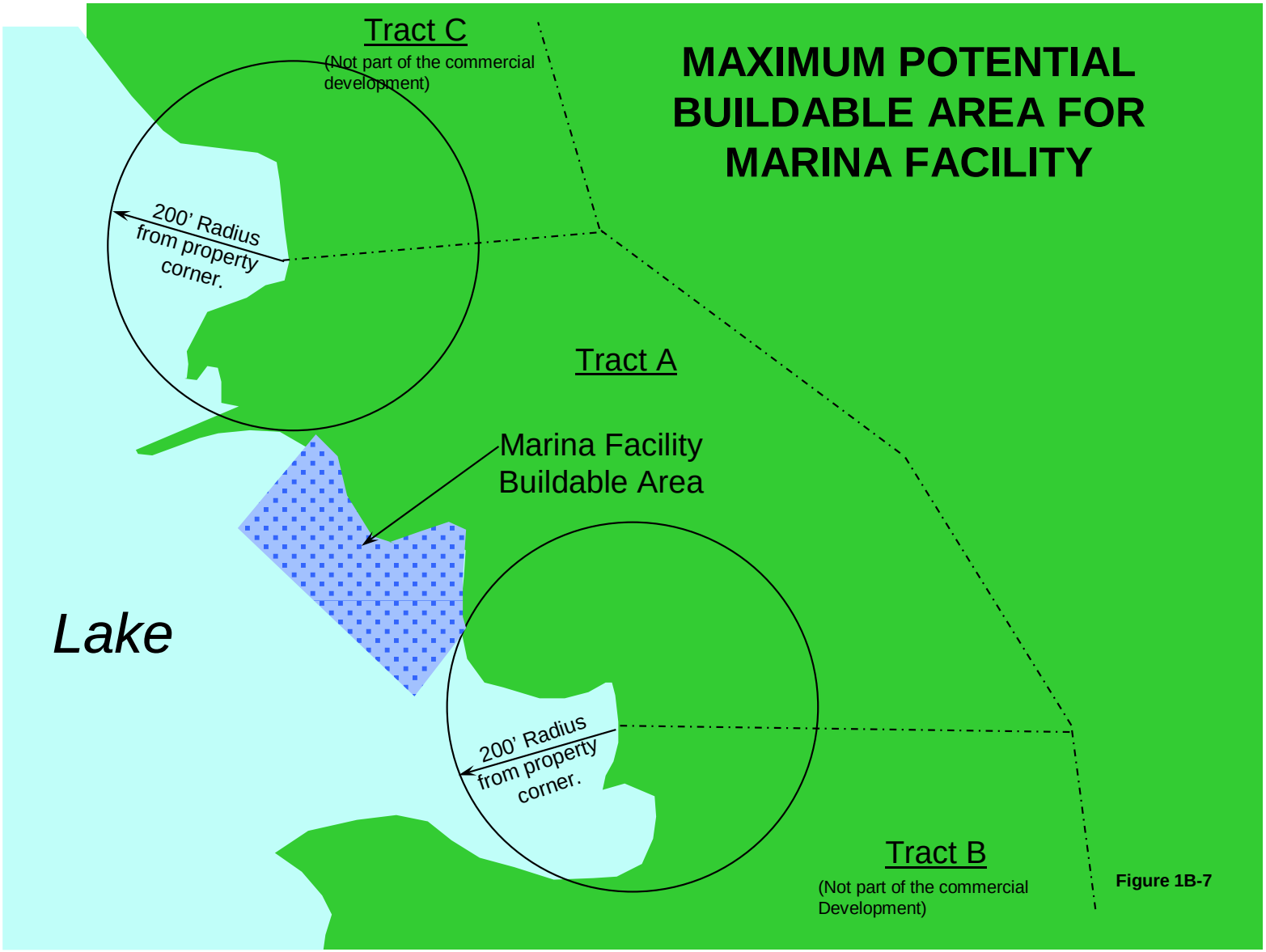
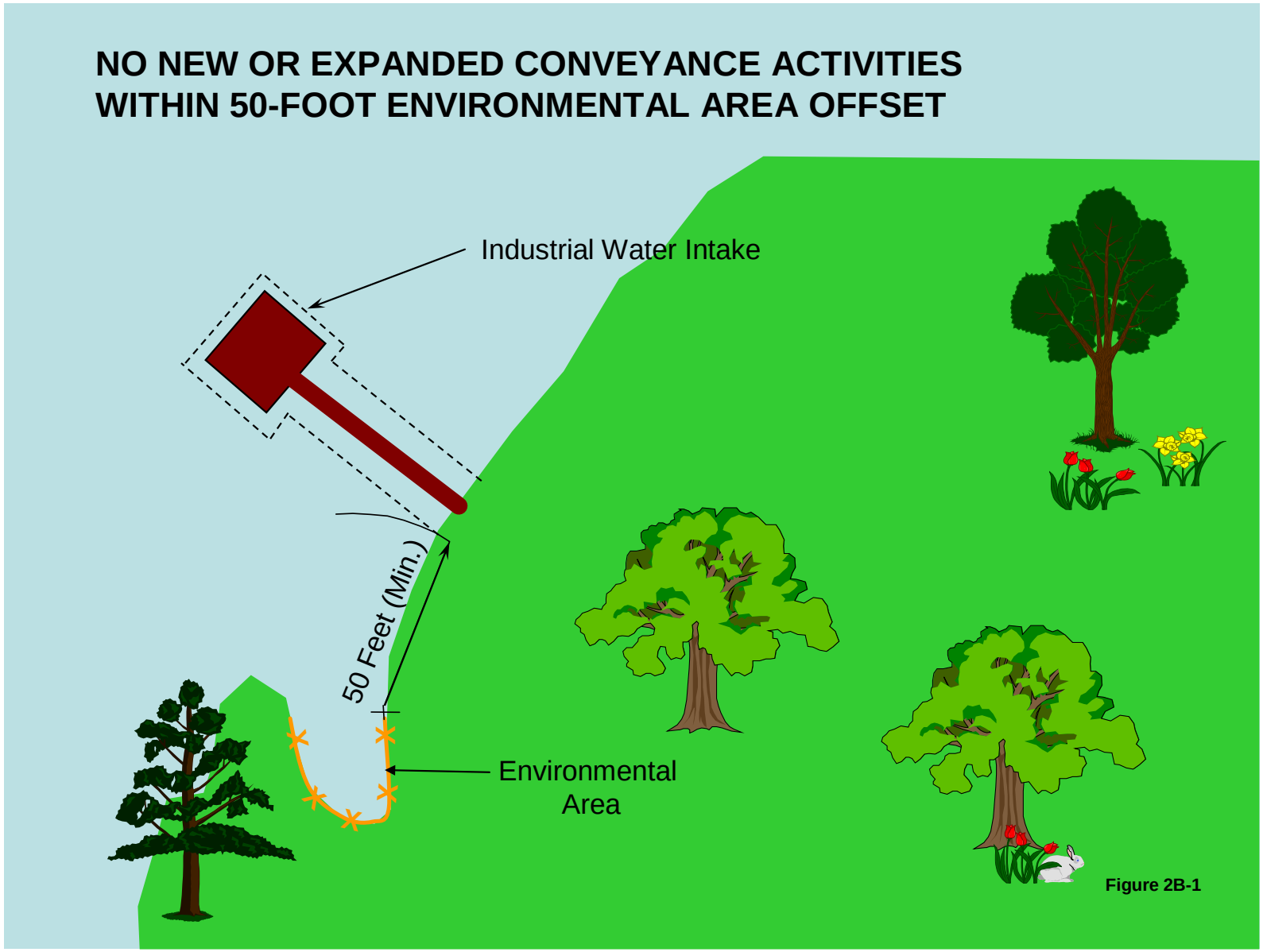


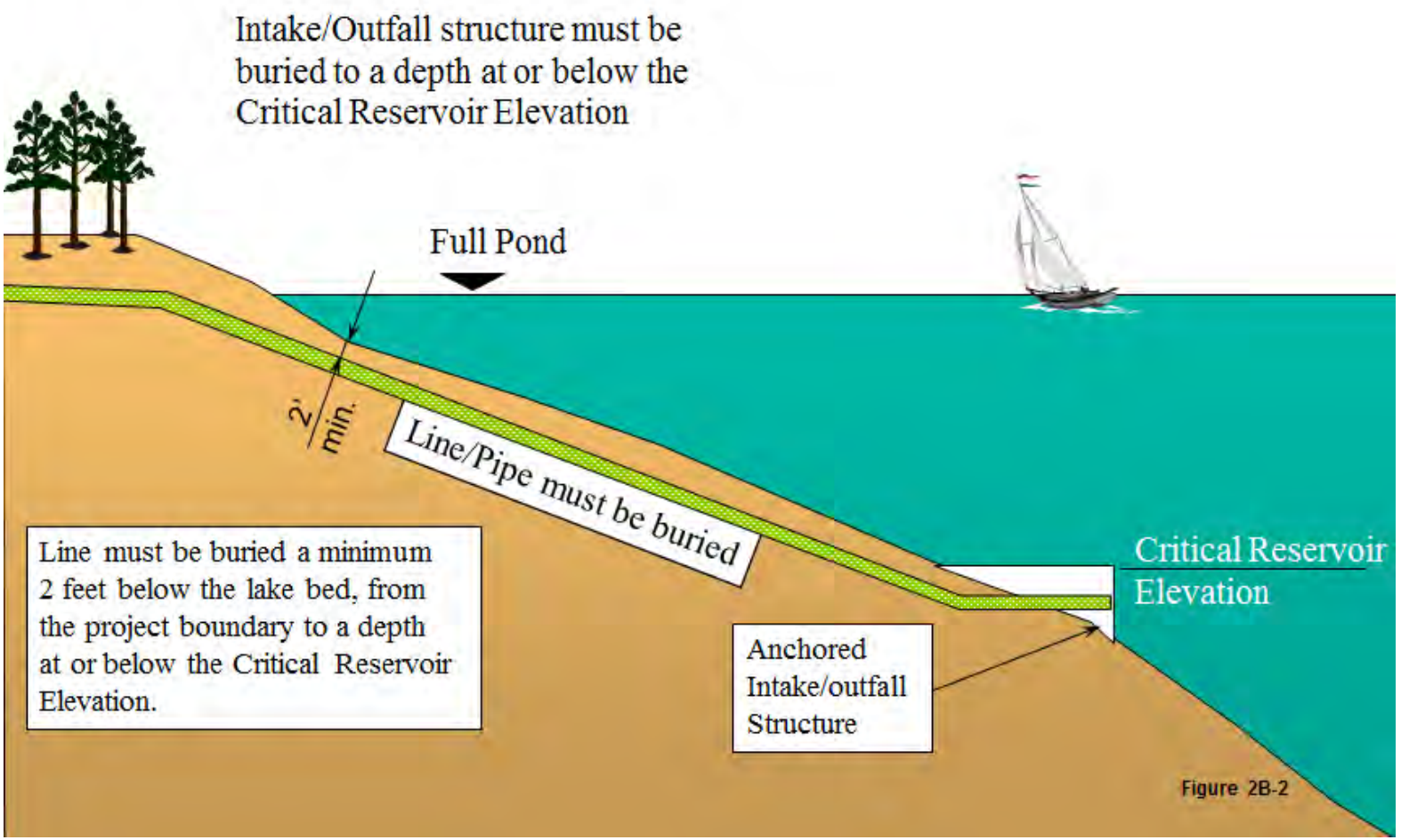
Figure 1B-7

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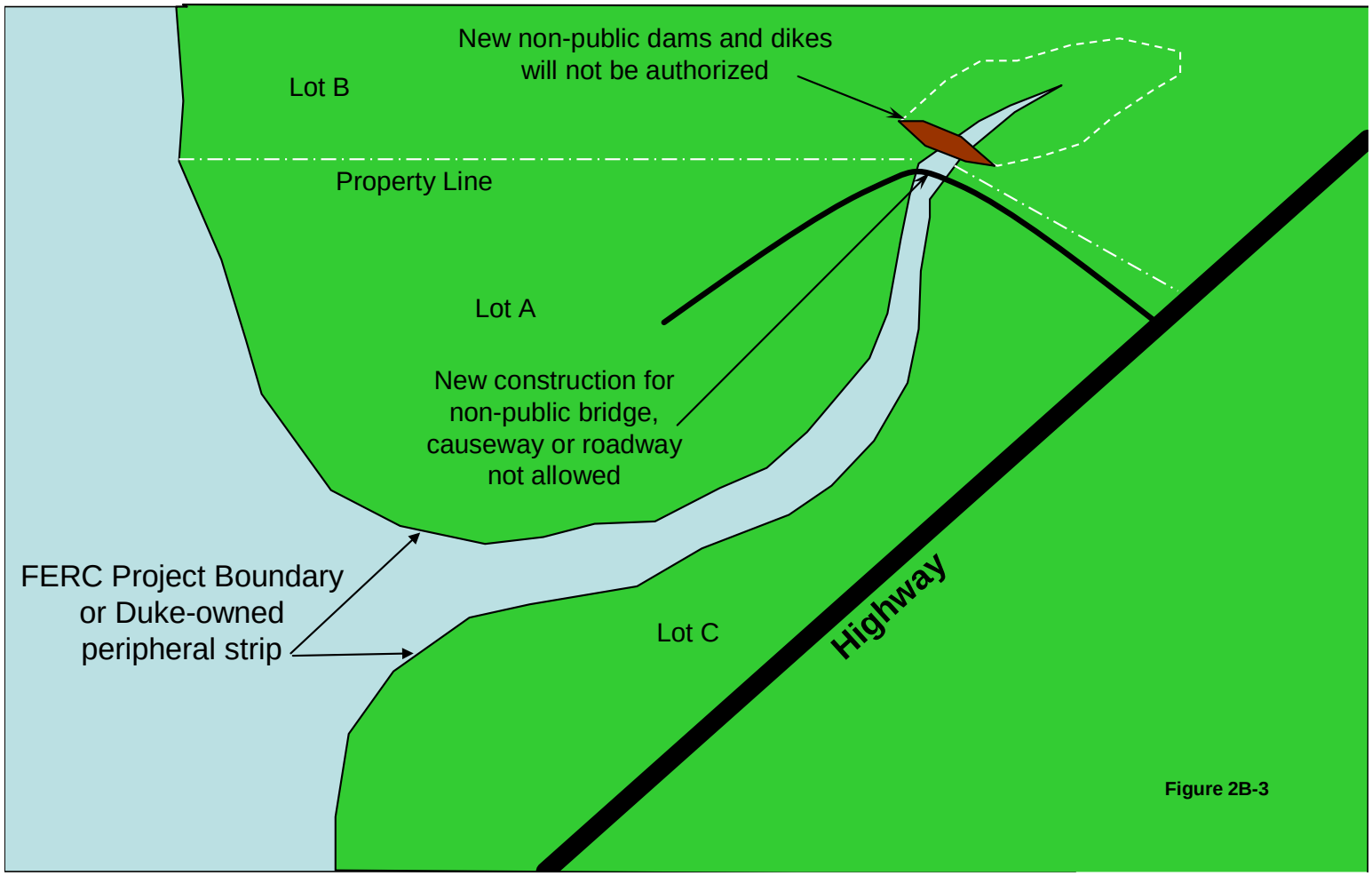
3:24-cv-01281-MGL Date Filed 10/01/25 Entry Number 82-2 Page 188 of 261

SUBMARINE UTILITY LINE AND INTAKE/OUTFALL REQUIREMENT

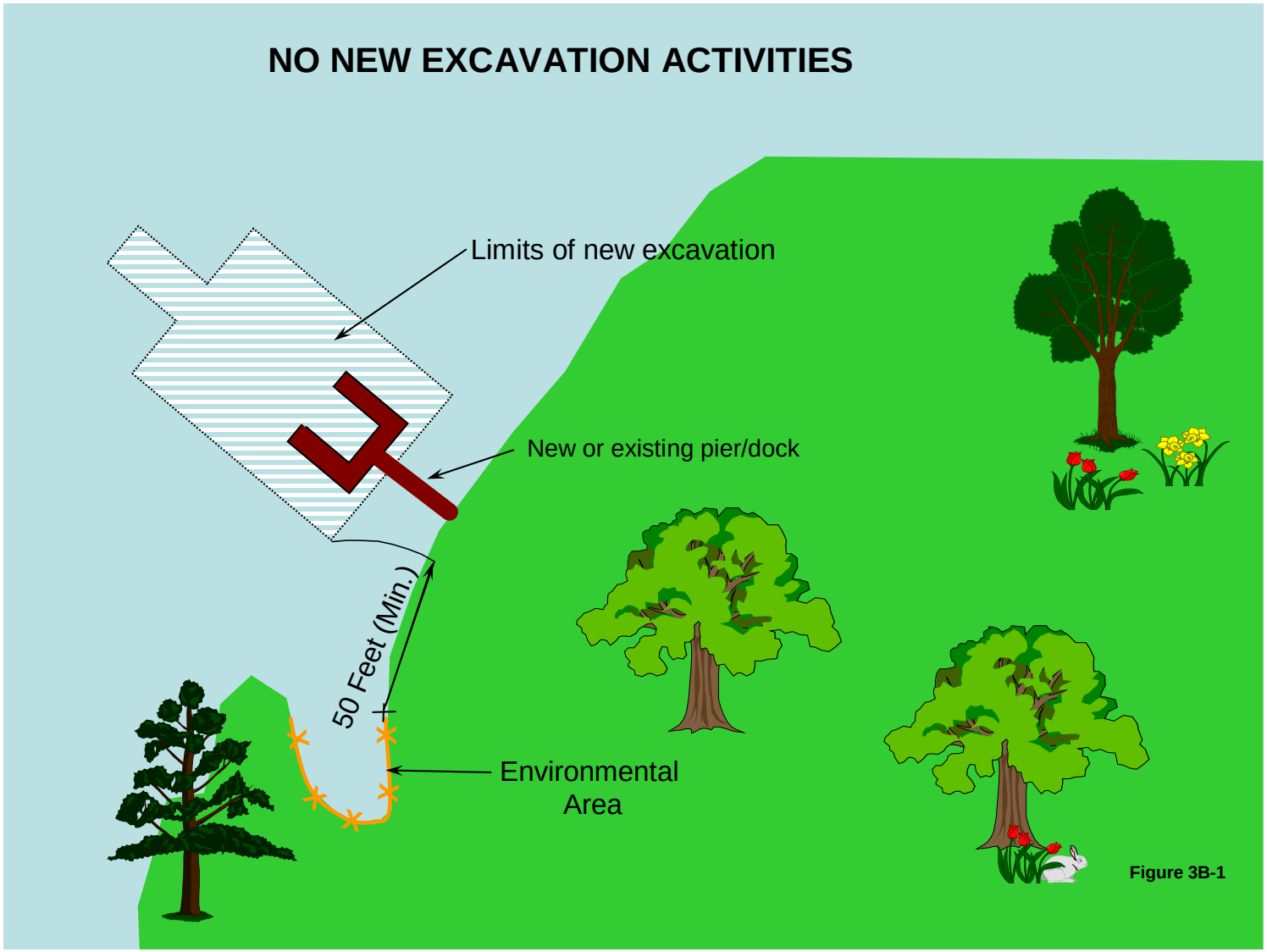


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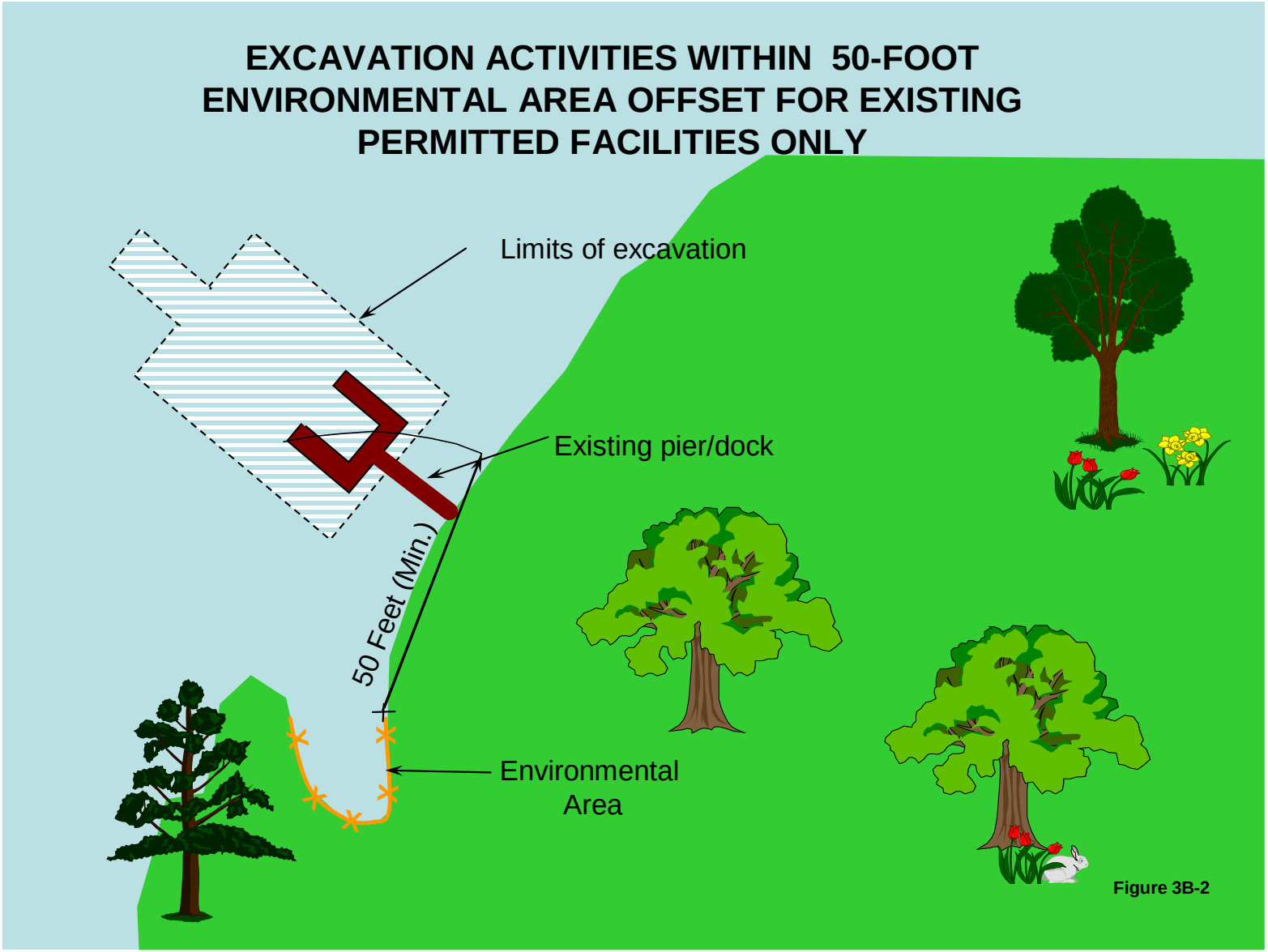
NEW NON-PUBLIC CONSTRUCTION WITHIN THE FERC PROJECT BOUNDARY OR ON ANY DUKE-OWNED PERIPHERAL STRIP



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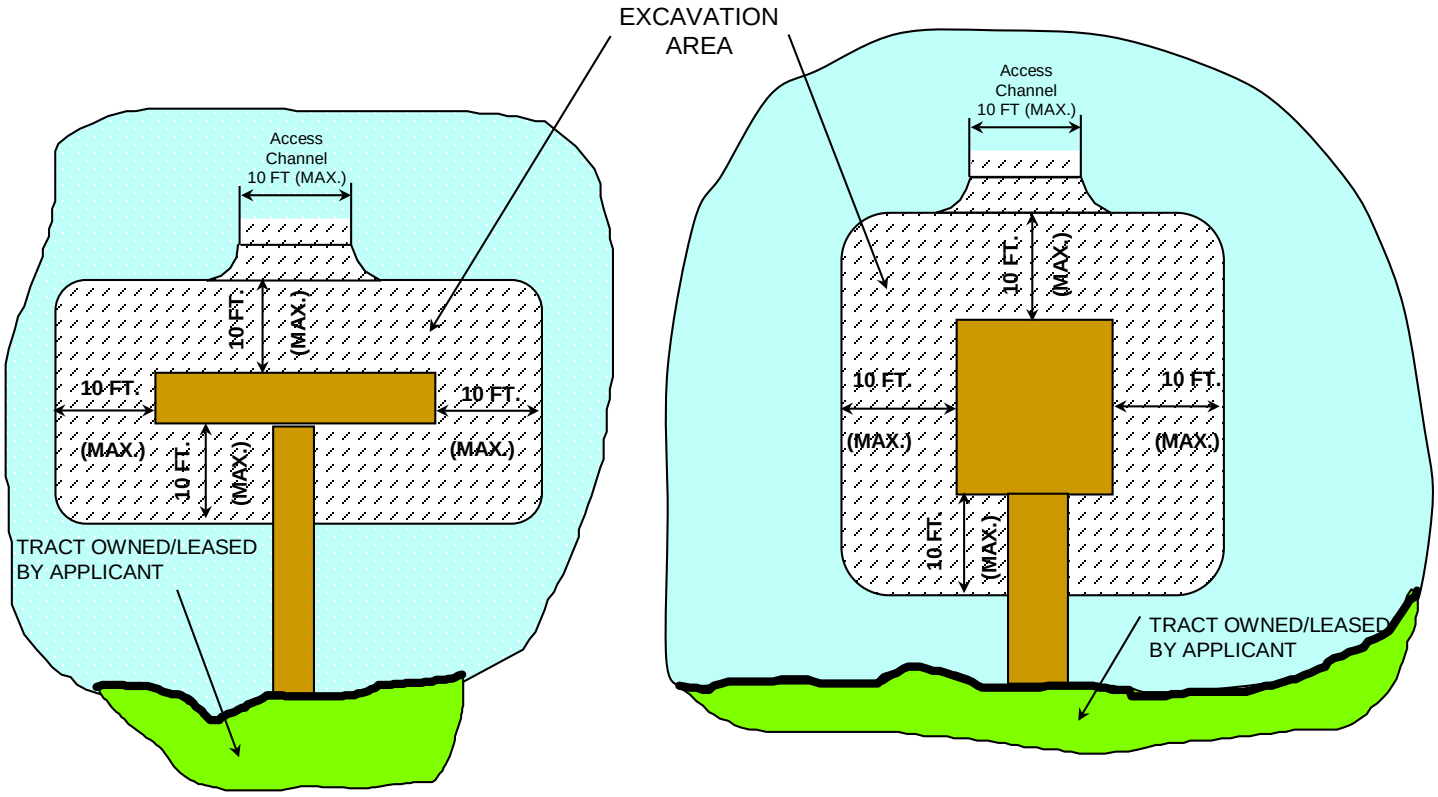


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GUIDANCE FOR MINIMIZING EXCAVATIONS NEEDED FOR A "T" CONFIG. AND AN "I" CONFIG. FACILITY



"T" CONFIGURATION FACILITY

"I" CONFIGURATION FACILITY

Figure 3B-3

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GUIDANCE FOR MINIMIZING EXCAVATIONS NEEDED FOR SINGLE-SLIP AND MULTI-SLIP FACILITIES

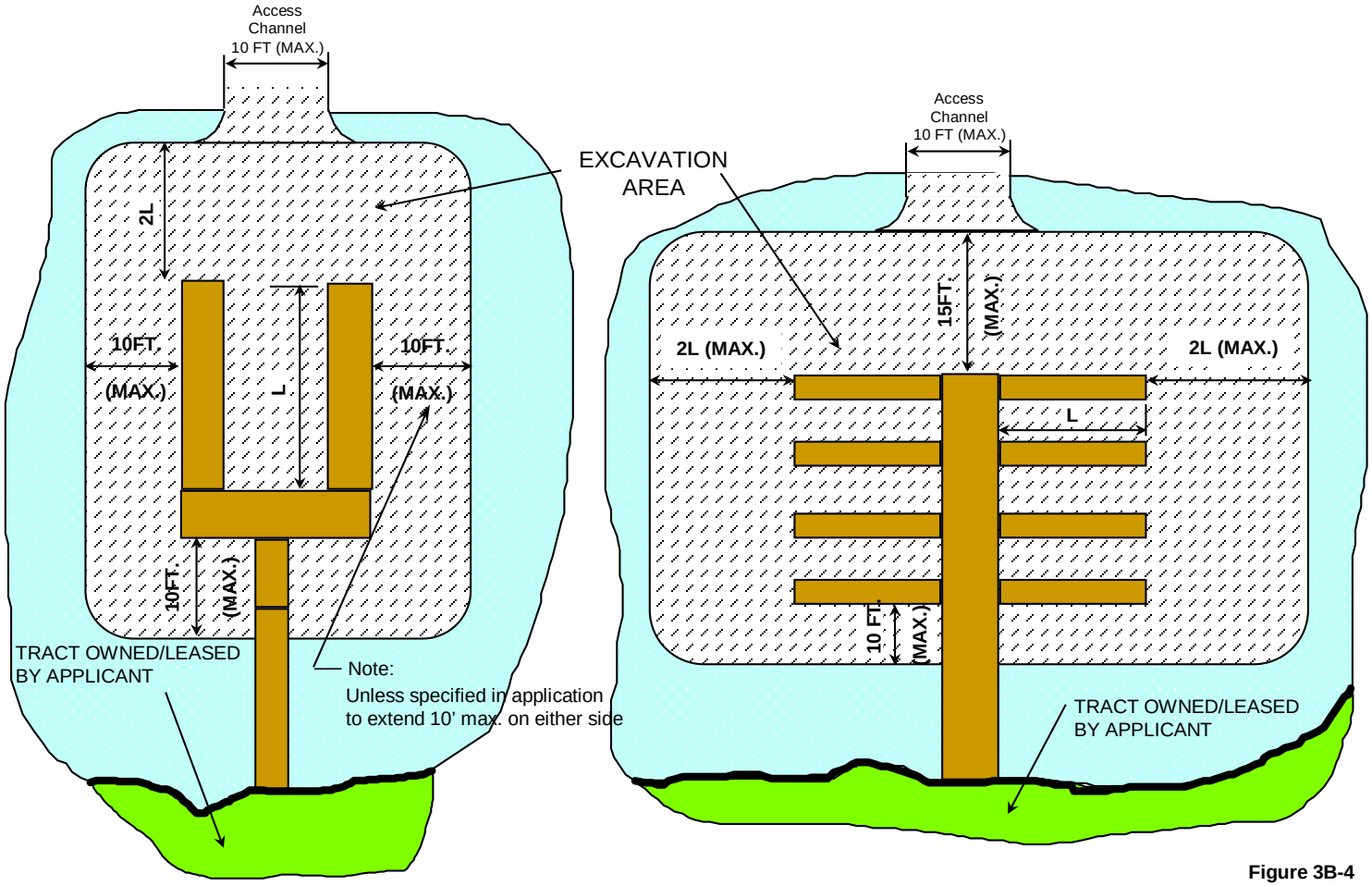
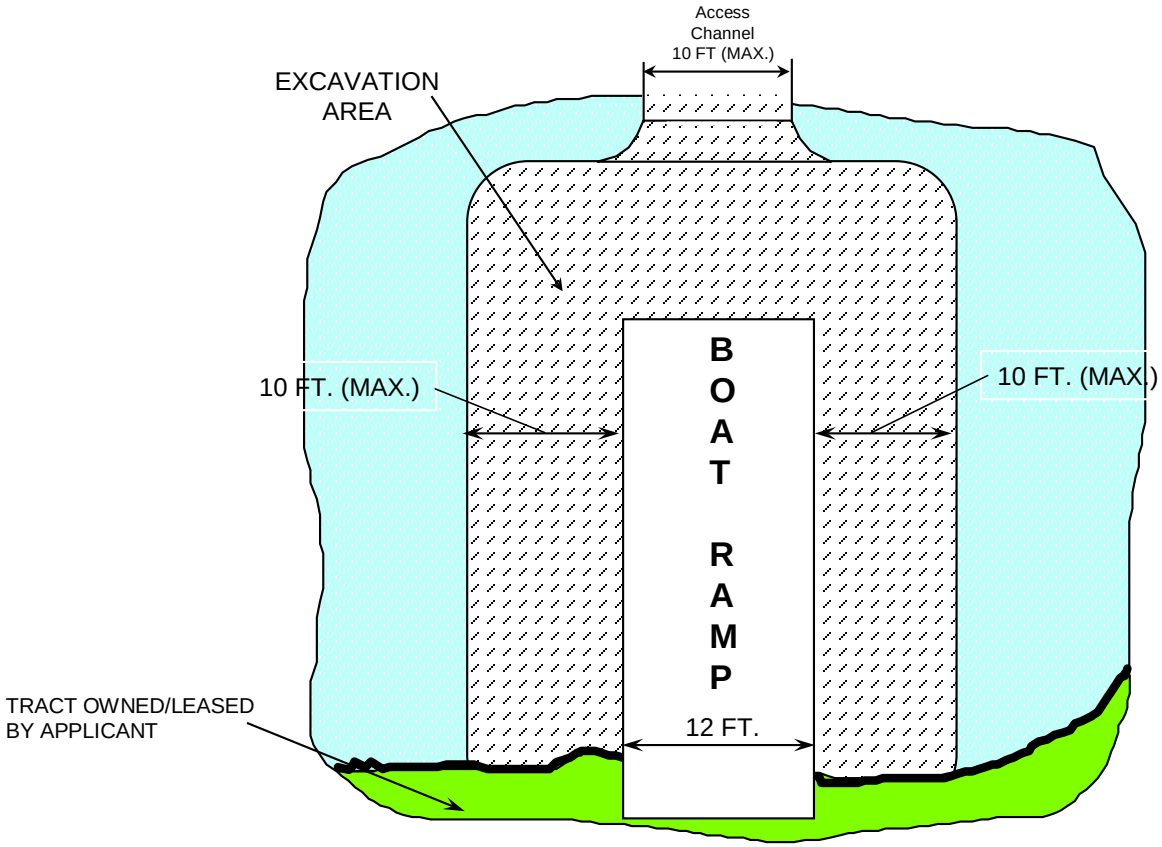


Figure 3B-4

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GUIDANCE FOR MINIMIZING EXCAVATIONS NEEDED FOR MAINTENANCE OF SINGLE LANE BOAT RAMP

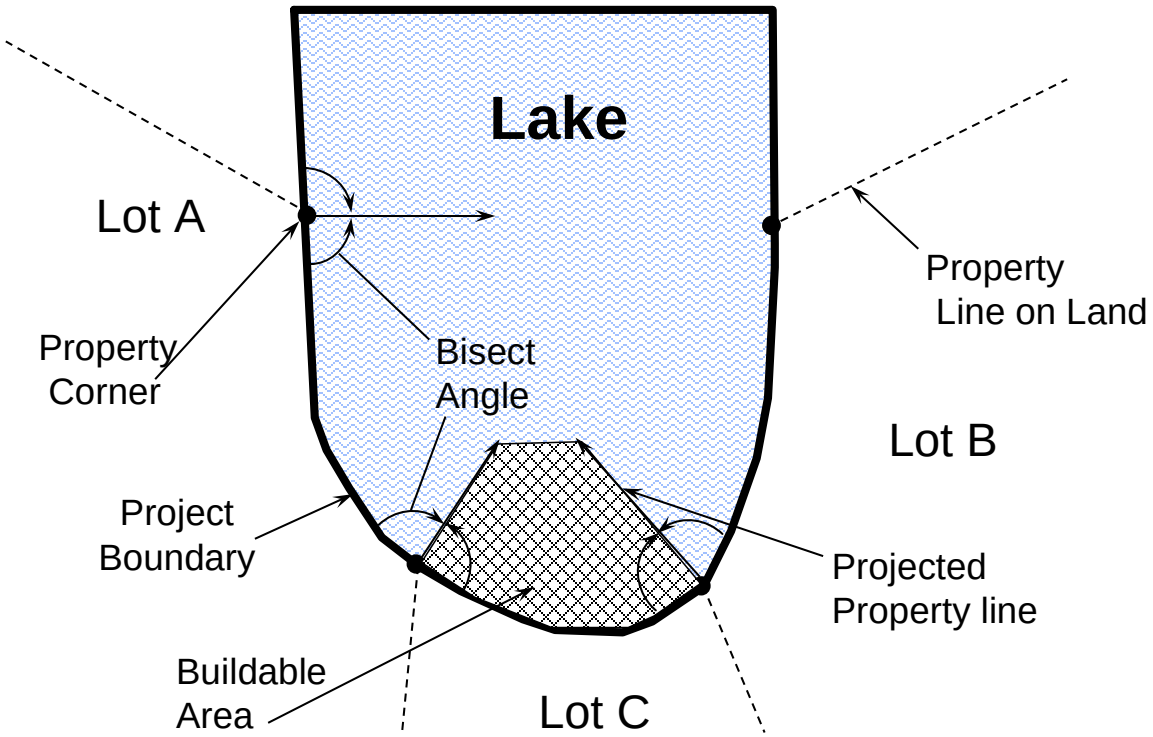


SINGLE LANE BOAT RAMP

Figure 3B-5

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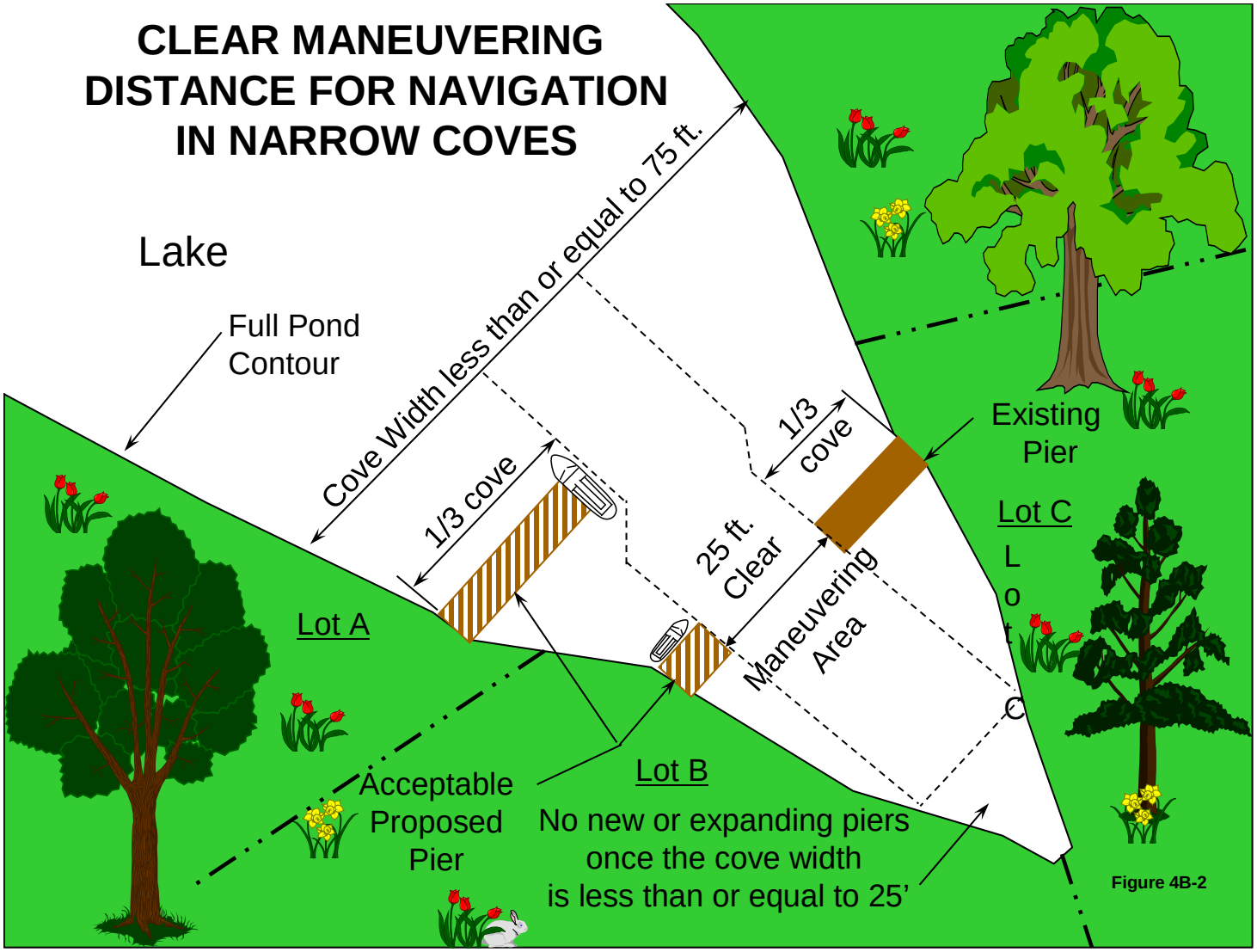
TYPICAL DUKE ENERGY-LAKE SERVICES PROPERTY LINE PROJECTION



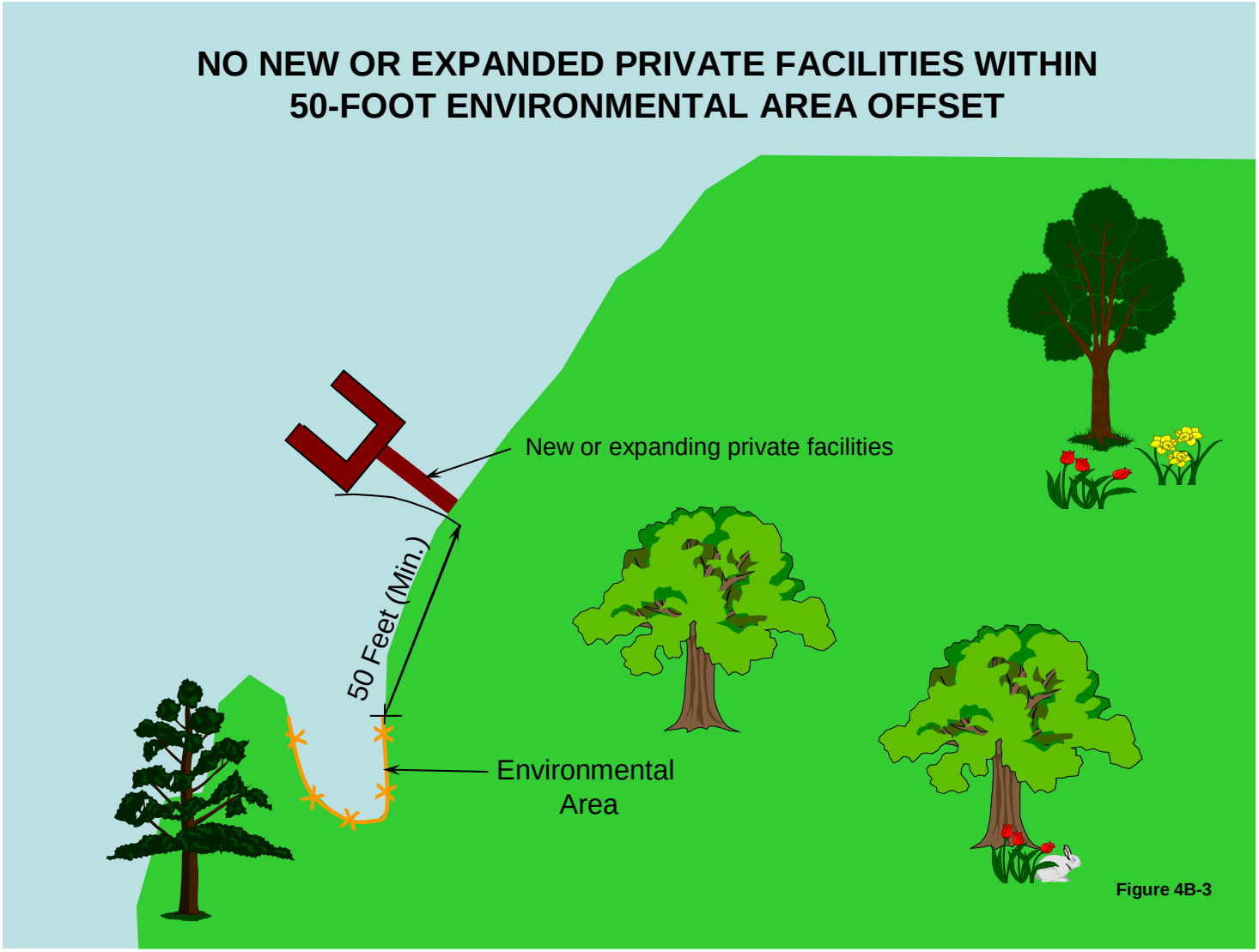
(NOTE: Local ordinances may provide an alternative property line projection methodology)

Figure 4B-1

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SHORELINE STABILIZATION TECHNIQUE SELECTION PROCESS

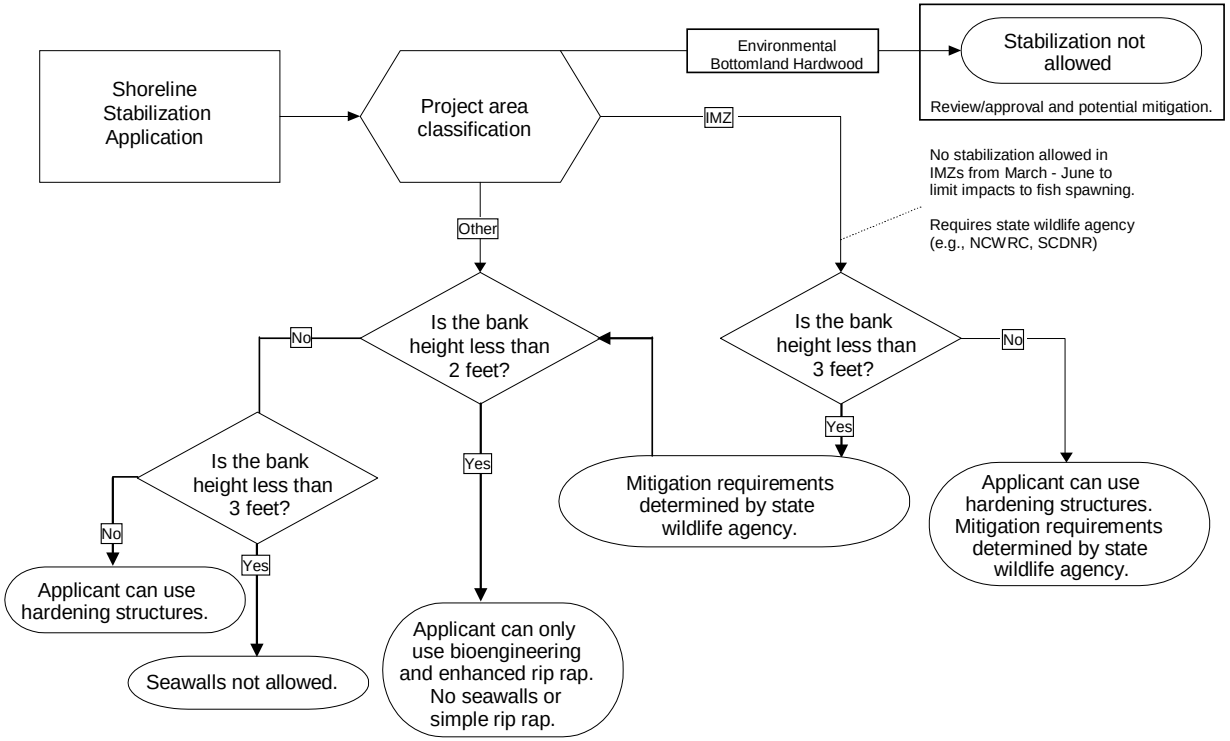


Figure 5A-1

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TYPICAL SEAWALL FOR SHORELINE STABILIZATION

Note: Rip-Rap Class B or larger must be placed along the base of all seawalls and extend a minimum of 6 feet.

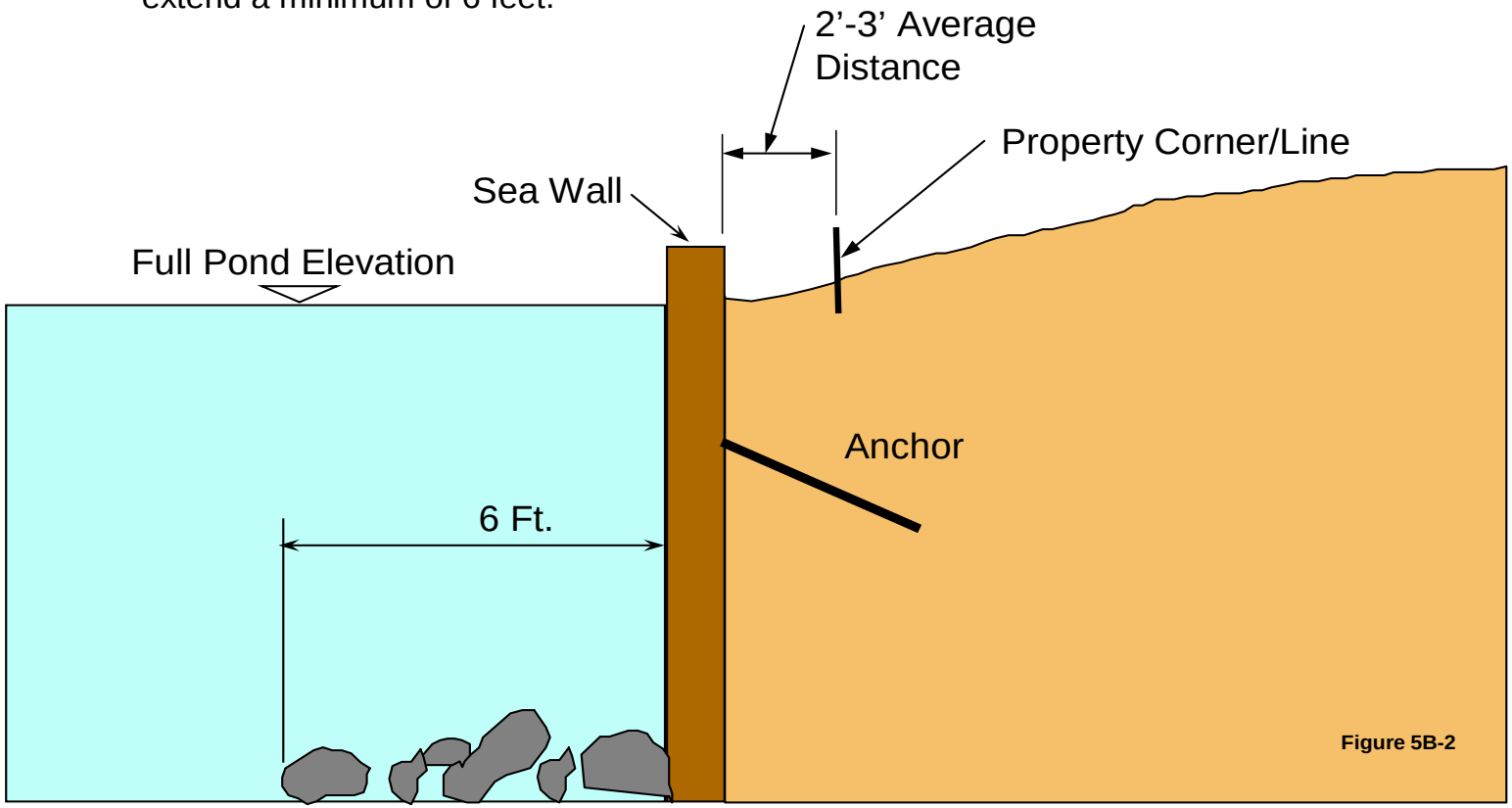


Figure 5B-2

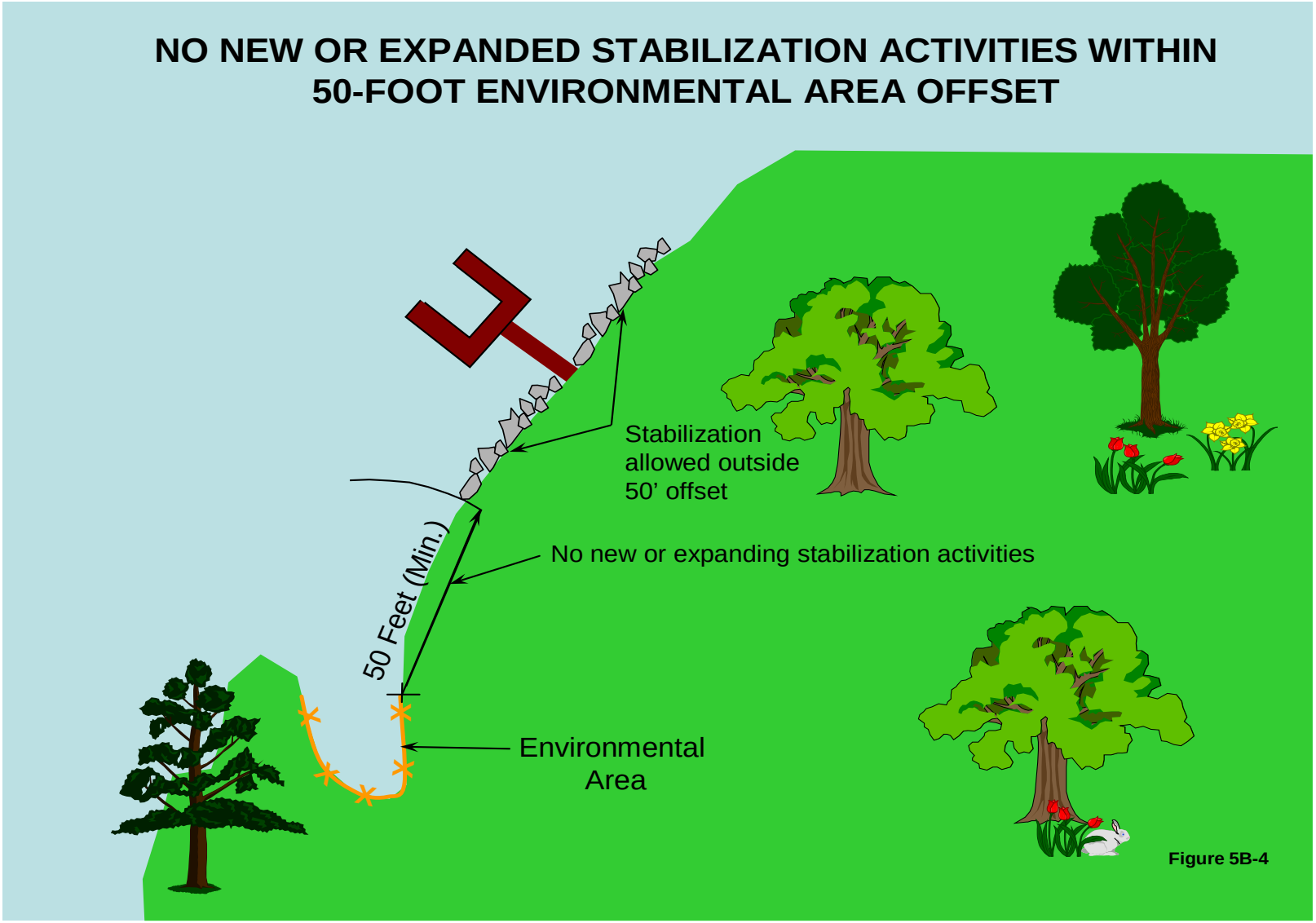
3:24-cv-01281-MGL Date Filed 10/01/25 Entry Number 82-2 Page 200 of 261



ENHANCED RIP-RAP (WITH BOULDERS AND PLANTINGS)

Figure 5B-3

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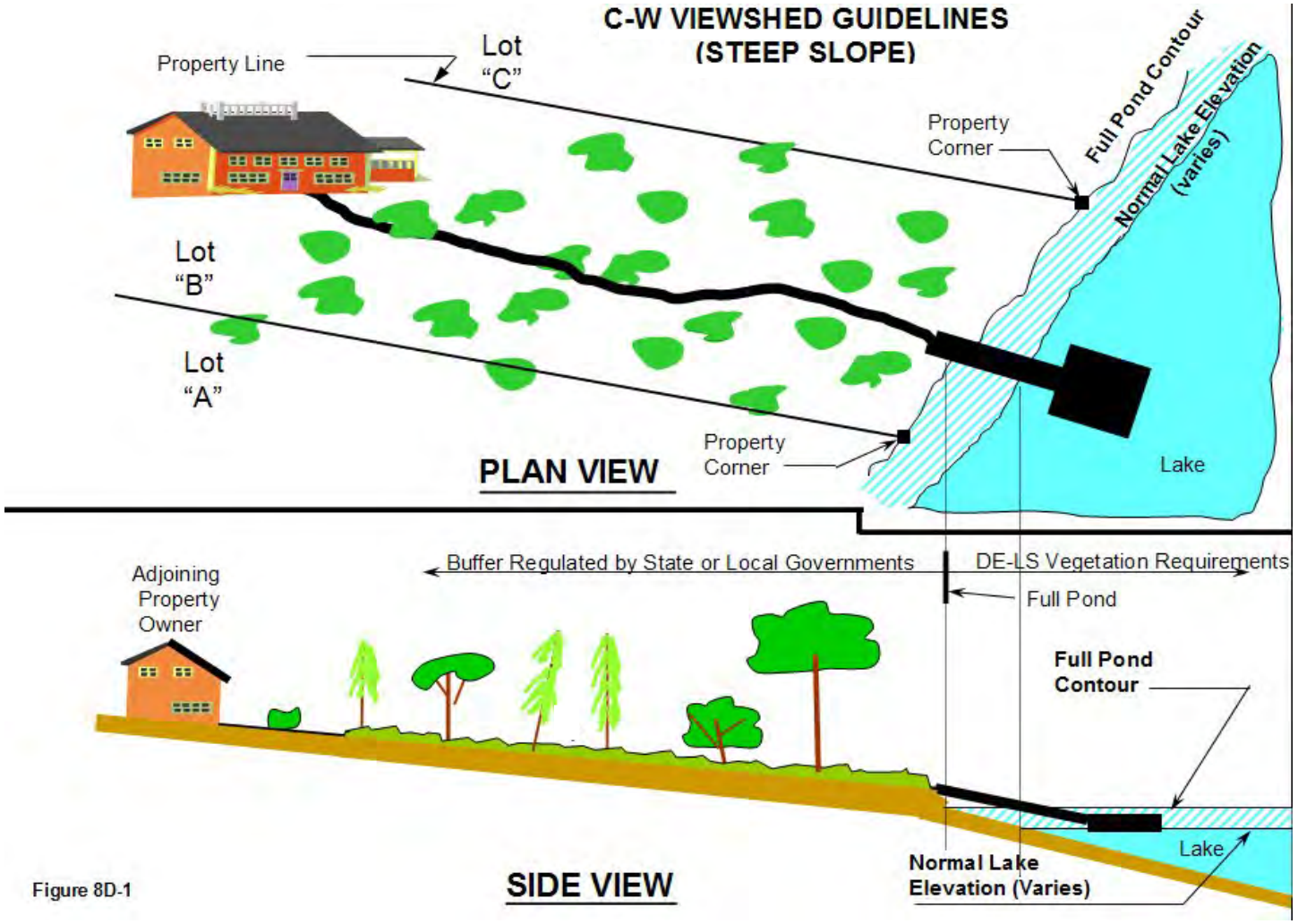


Figure 8D-1

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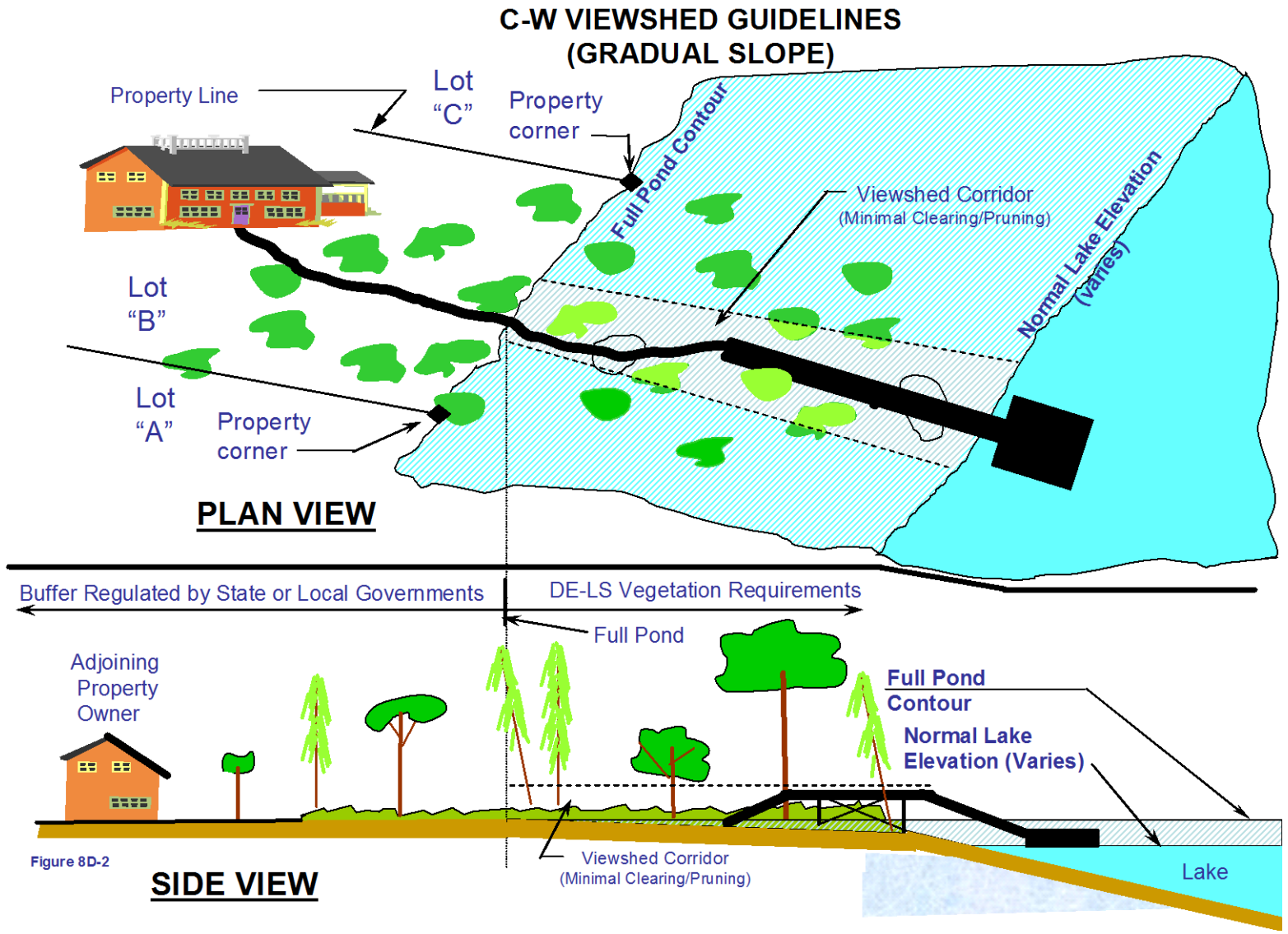


Figure 8D-2

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VIEWSHED EXAMPLES



ACCEPTABLE



UNACCEPTABLE

Figure 8D-3

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VIEWSHED EXAMPLES



ACCEPTABLE



UNACCEPTABLE

Figure 8D-4

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Appendix D - Classification Rules

1. Highest Use Rule



In the above screen shot, the existing use was used to determine the center of the 200-ft radius and the undeveloped shoreline was classified to its highest use. For example: 3s (Future Residential) to 2s (Future Residential Marina). Each individual parcel was not used with this criterion, but instead the cumulative parcel frontage was used. In the above example, three individual parcels are located with undeveloped shoreline, and the distance from the property corners of the three adjacent undeveloped shorelines is greater than 400 feet; therefore, their classification is a 2 (Future Residential Marina) to match the Highest Use.

2. FERC-Approved Rule



Where there has been FERC approval for shoreline development, the shoreline classification was modified to match the FERC-approved use even if it was not apparent on the photography. In the above example, the peninsula shown in the larger red polygon was formerly classified as 1 (Future Commercial Marina), but because this area had been approved by FERC for a Commercial Marina, the classification was changed to Commercial Marina even though the facilities were not present when the photography was taken.

3. Dead-End Road Rule



Where a road right-of-way parcel frontage "dead end-ed" at the shoreline the classification was projected straight out from the parcel as "Public Infrastructure." The angle bisection method (refer to Figure 20 in Appendix C) used for privately owned parcels was not used.

4. Community Dock Rule



For residential community developments that do not allow individual pier/dock ownership, but have one or more Residential Marina docks/piers that service both on and off-water lots in the community, the shoreline for the entire development was classified as Residential Marina, as in the above photograph.

5. Golf Course Rule



Shoreline projected from golf courses abutting the Project Boundary was classified as Business Industrial whether fairways, greens, shoreline stabilization, or undeveloped wooded areas were present.

6. Common Use Rule with 10 or Less Slips

If it appeared a dock/pier with 10 or fewer slips is providing access for several Project-front lots (i.e., "Common Use", the related shoreline was classified as Residential. If, however, the pier/dock appeared to serve multi-family dwellings or off-water lots, the associated shoreline was classified as Residential Marina.



Example 1: The multislip dock above appeared to be providing access for the three adjacent parcels; so the projected shoreline for the thre parcels was designated as Residential

.



Example 2: The multislip dock within the red polygon above appeared to be providing access for the three adjacent parcels; so the projected shoreline was changed to Residential, instead of Residential Marina, which is still shown in the polygon.



Example 3: The five-slip dock within the blue polygon appeared to be providing access for the five Project-front parcels (each outlined in yellow); so the projected shoreline was designated as Residential instead of Residential Marina that is still shown in the plygon even though the facility was not located directly within the projected shoreline of some of the parcels.

7. Peninsula Rule



In cases where the shoreline contour elevation line below the Project Boundary line was associated with an area that is "island-like" area, the shoreline of the peninsula was designated as "Future Public Recreation" as if it were an island (shown within the blue polygon in photo). Best judgment was used to locate where to start the Future Public Recreation classification. In contrast, if the shoreline contour line created a prominent peninsula not associated with an island-like area and looked more like an extension of the Project-front parcel, with all of the property in question below the Project Boundary line, this was not designated as Future Public Recreation but as the appropriate future or existing use as if shoreline were part of the parcel.

8. Road/Utility Right-of-Way Rule



Right-of-way (e.g., road or utility) parcel data, were used to identify shoreline segments to mark as "Public Infrastructure." Development activity (i.e., rip rap) was not considered. Where parcel data were not available, best judgment was used to classify the shoreline based on photography.

9. Constriction Point Rule



Constriction points based on the Digital Elevation Model full pond contour took precedence over the 2006 SMP shoreline (which was based on 2005 aerial photography) in classifying the shoreline where applicable. A computer-generated150-ft transparent lakeside buffer used to aid in identifying constriction points based on the Project Boundary line. Above is a picture showing the 150-ft lakeward buffer from the Project Boundary line. The constriction point is indicated by the arrow.

10. No Parcel Data: 50-ft Radius Rule



In cases of developed shoreline without associated parcels, it was assumed a 100-ft average lot width OR best judgment if facilities were close together. A 50-ft radius was placed on existing structure to determine the assumed 100-ft average lot width. The shoreline within the 50-ft radius was classified with the appropriate existing use (Residential in the example photo above).

11. No Parcel Data; 200-ft Radius Rule



In cases of developed shoreline without associated parcels, a 200-ft radius from the center of the existing facilities, was used to determine if there was an overlap with nearest neighboring facilities. If there was an overlap, the shoreline was reclassified to Future Residential (3s) (inner circle: 50-ft radius; outer circle: 200-ft radius). Conversely, if the two 200-ft radii did not overlap, the un-overlapped shoreline was classified to the highest use (see Highest Use Rule). In the above example, the shoreline between the two 200-ft radii was classified as 1s.

12. Cutoff Rule



Areas within the Project Boundary but separated from the shoreline of the main body of water (i.e., "Cutoffs") identified in the 2006 SMP with Environmental or Natural classifications were reclassified to the most restrictive classification. In the above example, there was an IMZ classification and a Natural classification in the cutoff area. Therefore, the shoreline within the entire cutoff area was reclassified as the more restrictive Natural classification, based on best judgment on shoreline projection. The Project Boundary line was used as an indicator that the cutoff area exists, and the restrictive classification will apply to the Project Boundary line (irregular yellow line around the small pond in the above photo).

13. Single Owner, Multi-Lot Rule



Even when parcel data show an individual owns two or more adjacent parcels, only the lot with an existing structure or stabilization was classified as an existing use (Residential in the photo above).

14. Church Rule



Church-owned shoreline with development is classified as Residential (and not Business/Industrial) for the entire parcel's shoreline consistent with the treatment of Residential uses. In the photo above, the red triangle highlights shoreline appropriately classified as Residential. The remainder of the shoreline along the parcel was reclassified from Business/Industrial to Residential.

15. Campground Rule



Existing long-term stay campgrounds (greater than 14 days of stay) with one owner, not permitted under the Commercial Marina Program, were classified as Residential because docks/piers were originally permitted under the Private Facilities Program and these docks/piers provide access for waterfront dwellings. The Residential classification is more restrictive than other existing use classifications because it does not allowing additional development within the shoreline segment. Existing facilities can only be maintained. If a Residential Marina (off-water) is desired in the future, a landowner would have to provide justification and file a reclassification request. The shoreline for those campgrounds currently permitted under the Residential Marina Program remained classified as "Residential Marina."

16. Special Use Rule



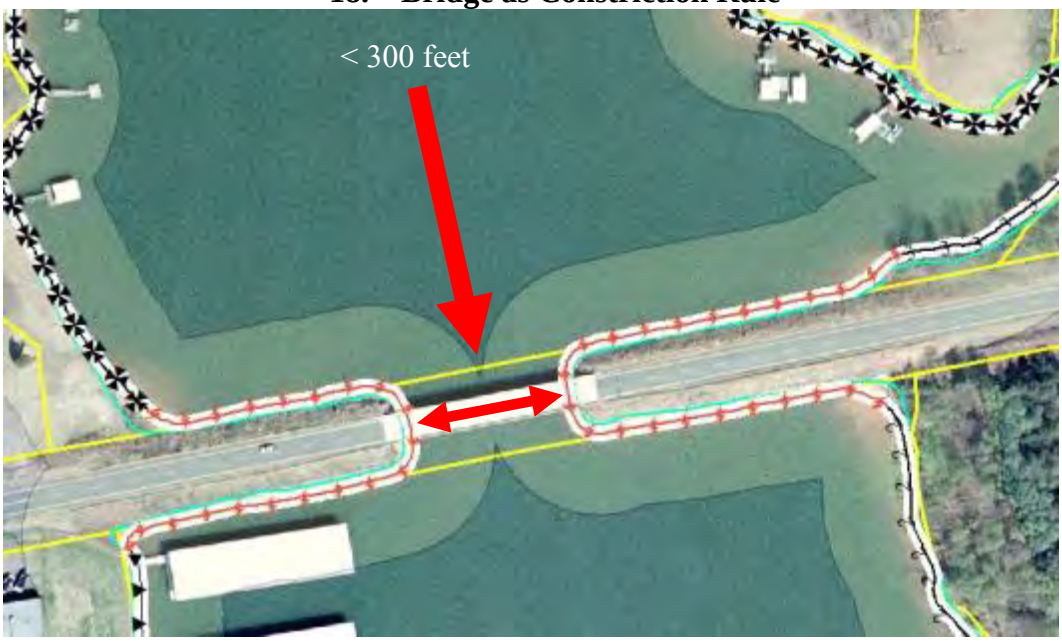
Special Use facilities (e.g., docks for a fire boat or DE-LS), as defined in the SMGs, were classified as Residential provided they had only a limited impact on boating. Shoreline with, greater impact developments (e.g., Oconee Nuclear Station Recreation Area with multi-slip dock and ramp) were classified as Commercial Marina. In the above example taken from Lake Norman, the classification within the red polygon changed from Commercial Marina to Residential.

17. Common Use with 11 or More Slips Rule



If it was believed a dock/pier is "Common Use" and has more than 10 slips providing access for Project-front lots, the shoreline was classified as Residential Marina and each individual parcel linked to the multi-slip dock/pier (as indicated in the red polygon was classified as Residential Marina, as well.

18. Bridge as Constriction Rule



The SMGs do not permit Future Commercial Marina or Future Residential Marina Classifications up=lake of a 300-ft or less constriction. Constriction points can be created by approaches to bridges as shown in the above example where a computer-generated lakeward 150-buffer indicates such a constriction.

19. Island and Insignificance Rule



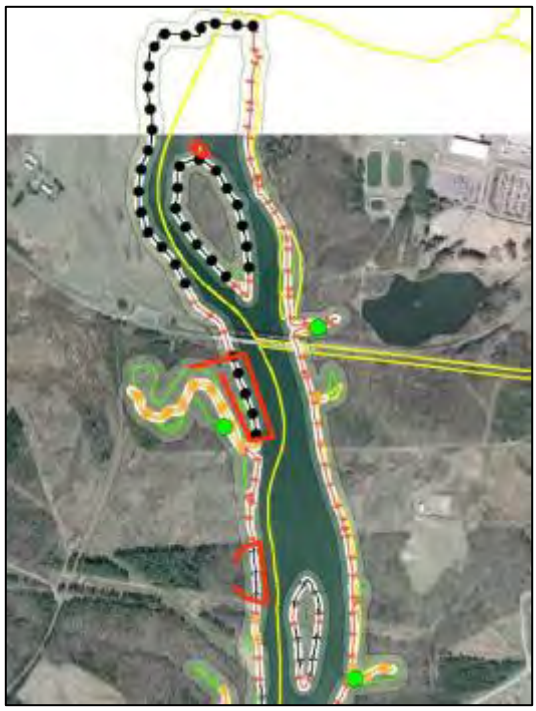
Island-like areas between the shoreline contour and the Project Boundary line with or without vegetation were considered insignificant and therefore no shoreline classification was provided.

20. Common Open Space Rule



If a parcel with Residential Marina docks/piers serves a residential development (Common Open Space), the shoreline for the entire Common Open Space parcel is classified as Residential Marina, similar to Community Dock Rule..

21. DCZ Island Classification Rule



Islands within a Downstream Clear Zone (DCZ) were classified as Future Public Recreation, unless the island was close to the hydro and nuclear facilities, in which case it remained Project Operations.

22. Business/Industrial Rule



The entire shoreline within the red polygon was classified as Business/Industrial because there is limited access for Project-front development.

23. Dam Rule (Three Rules in One)



1. Islands close to a dam were classified as Project Operations.

2. Transmission lines: Public Infrastructure overrode Project Operations; transmission lines were assigned Public Infrastructure in above example.

3. Public recreation facilities (e.g., canoe portage, fishing platform) near the dam were classified as Existing Public Recreation instead of Project Operations only in those cases where the recreation facility connects the shoreline. This Rule IS NOT shown in the above photograph

Appendix E – Process for Structure Renovation and Removal

1.0 Objectives

This document defines Duke Energy's process for renovation or removal of neglected structures within the Project Boundary. The standard land use article in the Project License specifies:

> *"If a permitted use and occupancy violates any condition of this article or any other of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable State and local health and safety requirements."*

Considering the above and Duke Energy's commitment to cost-effective management of safe and attractive lakes, Duke Energy Lake Services (DE-LS) initiated the Structure Renovation and Removal Process in 1996 to systematically meet the following objectives:

- Maintain and improve lake-user safety by eliminating potential hazards from man-made structures
- Manage Duke Energy's costs for floating debris removal by ensuring all structure owners take full responsibility for structure maintenance
- Ensure FERC license requirements are met

2.0 Structures in Need of Renovation or Removal

Structures in need of renovation or removal are structures and facilities lakeward of the Project Boundary that have deteriorated to such a state of disrepair they pose a potential hazard to safety, navigation, or public health. These structures and facilities include, but are not limited to, pilings, stationary piers/docks, floats, boat houses, boat shelters, marine railways, boat ramps, abandoned watercraft, and seawalls. This process will examine all lakeward structures (private, commercial, public, etc.) to identify exposed repair needs according to the basic guidance provided below.

A. Repair or Removal Guidance

Any structure or portion of a structure posing a potential hazard to safety, navigation, or public health is a candidate for repair or removal. The determination of the need for repair or removal will be a judgment call on the part of a DE-LS Representative. Generally, if a DE-LS Representative is unwilling or unable to walk on, within or under a structure, because of concerns for their own safety and the safety of others, repair or removal will be required. Below is a list of more specific guidance.

- **All structures** (stationary piers, docks, floats, boat houses, boat shelters, etc.) without adequate and sound decking should be repaired or removed from within the Project Boundary.

- **All floating structures** (piers, floats, and boat houses) without adequate flotation (enough to keep the structure level) should have flotation replaced with approved materials or be removed from within the Project Boundary.

- **Roofed structures** (boat shelters, boat houses, and gazebos) with roofs that are leaning or in danger of collapse should have pilings, joists, and/or the entire roof replaced, repaired, or removed from within the Project Boundary.

- **Pilings** (wooden, concrete, and metal) that are not interconnected with sound joists and decking, and are not used as mooring structures, light/marker supports, etc. should be removed from within the Project Boundary.

- **Enclosed structures** (boat houses or boat shelters) must have the siding securely attached. Severely rusted or rotted portions should be replaced or removed from within the Project Boundary.

- **Unsecured/stranded structures** (unattached walkways, boat houses, floats, etc.) must be permanently secured to the main facility or removed from within the Project Boundary.

- **Boat ramps or marine railways** with large holes in the concrete or with rails not properly secured must be repaired or removed from within the Project Boundary.

- **Seawalls** that are severely leaning to the point of potential collapse or that have collapsed must be repaired, replaced, or removed from within the Project Boundary.

- **Abandoned watercraft** must be removed from within the Project Boundary.

- **Partially or completely submerged watercraft** must be refloated or removed from within the Project Boundary.

B. Priority

Time and resource limitations may not allow DE-LS to identify non-compliant structures, notify owners, and verify repairs of all dilapidated structures simultaneously. A priority methodology has been established to categorize structures. This will ensure the structures with the highest priority are handled most quickly. Dilapidated structures, are characterized as either floating or stationary. For navigational safety reasons, floating debris is generally rated the highest priority and receives the most immediate attention.

Priorities for **floating debris** are:

- **High**—Floating debris located in areas with no navigation restrictions

- **Medium**—Floating debris located in navigable areas with restrictions (e.g., No Wake Zones)

- **Low**—Floating debris located in non-navigable areas or where secured to the shoreline or an existing structure

Priorities for **stationary** debris and dilapidated structures are:

- **High**—Structures in imminent danger of becoming floating debris under normal conditions
- **Medium**—Structures with a high likelihood of floating away during periods of high water
- **Low**—Structures that are in overall satisfactory repair but have a portion that may require minor corrective action

The following table outlines actions for the priority categories.

Priority	Corrective Action	Timing for Corrective Action	Examples
High	Immediate action by DE-LS to secure floating debris; owner removes debris or removes/repairs structure	45 days from date of first notification	Unsecured, floating debris large enough to create a navigation hazard in unrestricted navigable areas
Medium	Owner removes debris or removes/repairs structure	75 days from date of first notification	Unattached floating debris touching the lakebed within a No Wake Zone
Low	Owner removes debris or removes/repairs structure	75 days from date of first notification or 1 year upon approval of Lake Use Permit application	Missing floatation billet, missing pilings, severely leaning seawall, damaged boat ramp

Note: On occasion, DE-LS Representatives may place a higher priority on dilapidated structures or abandoned watercraft upon complaints from neighbors or if the structure or facility poses potential environmental health risks. In general, time will not be extended for corrective action beyond the timeframes provided above. However, if a structure owner identifies extenuating circumstances and provides DE-LS with a written plan and

schedule clearly justifying additional time, the DE-LS Representative may approve a request for an extension of time.

C. Property Owner Notification

Owners of identified structures will be notified by Certified Letter sent to their mailing address of record.

D. Structure Owner Response Times

Allowable time for property owners to respond to Duke Energy's notifications:

- **First Notice** (Notice 1)—15 days from the date First Notice was mailed to the property owner to contact DE-LS and either disclaim ownership of the identified structure or discuss corrective actions, the schedule, and any permitting requirements

- **Second Notice** (Notice 2)—15 days from the date Second Notice was mailed to the property owner to contact DE-LS and either disclaim ownership of the identified structure or provide DE-LS with a letter describing a corrective action plan and schedule

- **Final Notice** (Notice 3)—15 days from the date Final Notice was mailed to the property owner to contact DE-LS and either disclaim ownership of the identified structure or provide DE-LS with a letter describing a corrective action plan and schedule

- **Expiration Notice** (Notice 4)—Time has expired. The Expiration Notice provides notification to the property owner Duke Energy is proceeding with arrangements to remove the structure, taking further legal action(s), and that no future Lake Use Permit applications will be considered for the property until Duke Energy's expenses are fully recovered.

Note: A complete Lake Use Permit application, letter of intent, or contact via phone from the property owner, including an acceptable completion date, eliminates the need

for any further notifications. Verified corrective action is required to close-out the record in the Structure Renovation database.

3.0 Communication

Duke Energy will provide news releases to local media prior to the start of structure identification.

4.0 Consequences for No-Action

Failure of a structure owner to take corrective action within the specified time period may result in one or more of the following:

- Filing of legal action by Duke Energy against the property owner for the recovery of Duke Energy's costs
- Denial of new Lake Use Permit applications until Duke Energy receives payment for its costs (specific future lake use consideration limitations identified in the Private Facilities database)

Duke Energy's costs related to its removal of a structure or facility will include a mandatory $1,000.00 administrative surcharge plus legal fees plus the costs of removal. Removal charges include, but are not limited to, labor, equipment (e.g., boat, loader, dump truck, barge, chainsaw, etc.), travel expenses, mileage, and landfill charges.

Appendix F - True Public Marina Requirements

The following information will be used to determine the classification of marinas at the Project. To be classified as a ***True Public Marina***, the facility must meet all of the requirements in sections 1 - 3. Section 4 identifies the application fee and security deposit to be paid.

1. No predetermination of user groups for any of the existing or proposed land and water-based facilities.

    a. No Residential Marina Facility access (existing or proposed) except those existing marina facilities that are characteristically operated as True Public Marinas although they allow Residential Marina-type access on a very limited basis. These existing marinas may be afforded the same considerations provided new True Public Marina facilities if the number of wetslips and dry storage bays dedicated for Residential Marina-type access is < 10% of the total number of wetslips and dry storage bays within the marina facility and any considerations are approved by DE-LS. This exception only applies to the very limited number of existing marina facilities that meet the < 10% requirement as of 1/1/06.

    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

3. Provides publicly available marine pump-out and restroom facilities.

4. Application filing fee and security deposit reductions

    a. If adding only the following type of facilities; courtesy dock, hiking trail, wildlife viewing , gas dock, fishing pier, 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.

If the plan is the same as b., but also includes adding more types of items in 2 a., then the application fee and security deposit will be reduced by 100%.

Appendix G - Shoreline Stabilization Technique Selection Process

General Conditions

1. All seawalls must have Class B or larger rip-rap extending 6 feet lakeward from the base.

2. Considering current lake level operating targets and variability and the desire to prevent unnecessary impacts, rip-rap must be confined to the area between 6 feet below full pond elevation and no more than one foot above full pond elevation to the maximum practicable extent. Potential exceptions include areas where entire placement is above the FERC Project Boundary, where banks are already eroded above the full pond elevation or where severely eroded banks must be sloped back or terraced to provide minimum bank stability.

3. Seawalls are not allowed in areas with an average eroded bank height of less than 3 feet.

4. Proposals for stabilization where bank height is less than 2 feet can use approved bioengineering techniques and enhanced rip-rap techniques only.

5. The bank height is the average height of the eroded shoreline (measured from the original lake bed to the top of the eroded bank) in the area to be stabilized.

6. Bio-engineering is a stabilization approach that uses natural and living material.

7. Bio-Bioengineering techniques may include use of rip-rap with live stakes, rock filled gabions, live staked crib walls, biologs, and numerous other approaches.

8. Applicants can use bioengineering, rip-rap, seawalls or any combination of stabilization techniques where use of hardening structures are allowed.

9. Stabilization in an IMZ requires review/approval by the applicable state wildlife agency and reasonable mitigation requirements as determined through consultation with the state wildlife agencies.

10. Stabilization is not allowed from March 1 through June 30 in areas identified as IMZs in the SMP.

11. New or expanded stabilization activities (excluding bioengineering) may not be undertaken within the 50-foot Environmental Offset associated with an Environmental classification in the SMP.

12. Stabilization of eroded banks that are 3 feet in height or higher may be considered for bank reshaping by either cut or fill techniques provided:

    a. The stabilized bank uses a combination of rip-rap (not installed any higher than one foot above full pond) and bioengineering techniques;

    b. The cut or filled area, above the height of the rip-rap, is stabilized using vegetation in density and composition similar to other naturally vegetated areas in the vicinity of the stabilized shoreline;

    c. The toe of the rip-rap is vegetated if the lower limit of the rock provides a stable beach-shelf at an elevation 2-4 feet below full pond;

    d. The work can be conducted in accordance with all applicable buffer regulations; and

    e. The amount of cut or fill does not substantially alter the full pond contour, is strictly limited to only that necessary to provide a stable angle for rip-rap and revegetation, and is specifically quantified in the written authorization from DE-LS for the project.

13. Stabilization in areas classified as Natural, due to the presence of significant cultural resources, should not have artifacts impacted by using any shoreline stabilization techniques.

14. Applicants are encouraged to avoid activities (including stabilization) that could have an adverse impact upon existing water willow beds. Rip-rap installed below the normal lake level elevation and associated with water willow beds must be limited to one layer deep to allow spaces between the stone for water willow recruitment.

SHORELINE STABILIZATION TECHNIQUE SELECTION PROCESS

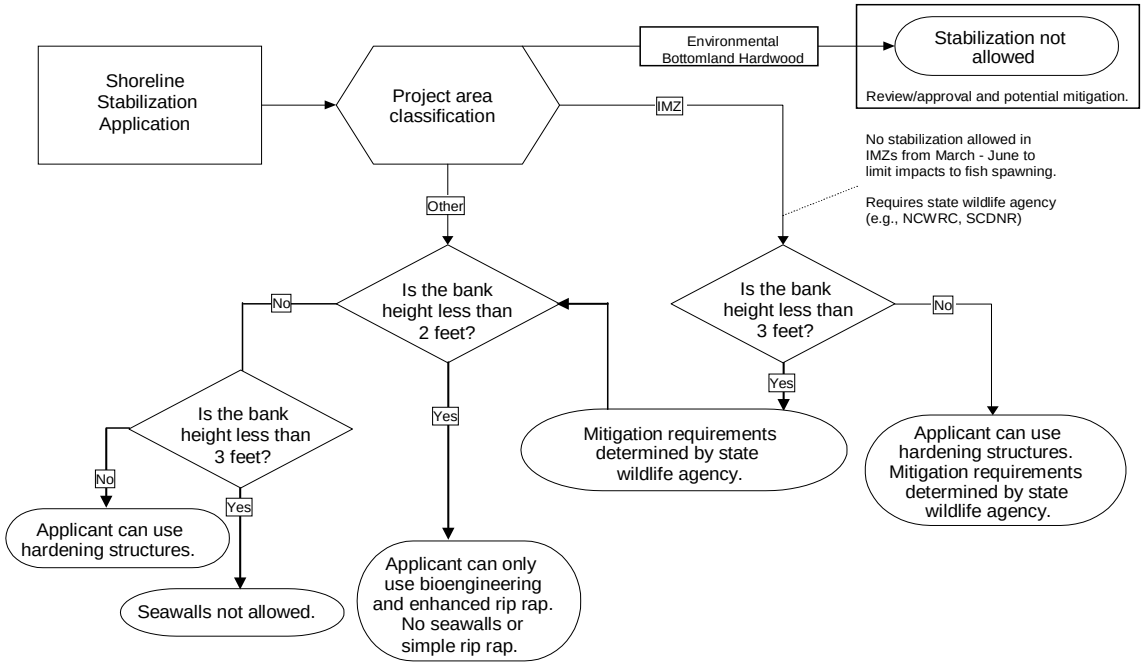


Figure 5A-1

3:24-cv-01281-MGL Date Filed 10/01/25 Entry Number 82-2 Page 239 of 261

Appendix H - Consultation Record

Duke Energy consulted with members of the SMP workgroup (see Table H-1) to develop this SMP. Consultation included a meeting in June 2016 to present the updated SMP as well as providing members of the SMP workgroup 30 days to review and comment on the draft SMP.

Table H-1 SMP Workgroup Members

- Alexander County, NC
- Burke County, NC
- Caldwell County, NC
- Catawba County, NC
- Catawba Riverkeeper
- Catawba-Wateree Relicensing Coalition
- Chester County, SC
- Fairfield County, SC
- Gaston County, NC
- Harbortowne Marina
- Iredell County, NC
- Kershaw County, SC
- Lake James Environmental Association
- Lake Norman Marine Commission
- Lake Wylie Marine Commission
- Lancaster County, SC
- Lancaster Docks
- Lincoln County, NC
- McDowell County, NC
- Mecklenburg County, NC
- Eddie Neil
- North Carolina Department of Environmental Quality
- North Carolina Wildlife Federation
- North Carolina Wildlife Resources Commission
- South Carolina Department of Parks, Recreation, and Tourism
- South Carolina Department of Natural Resources
- United States Fish and Wildlife Service
- Wateree Homeowners Association
- York County, SC

Comments were received from the following organizations:

- Catawba Riverkeeper
- North Carolina Department of Environmental Quality
- North Carolina Wildlife Resources Commission
- South Carolina Department of Natural Resources
- United States Fish and Wildlife Service

The comments received are summarized below along with Duke Energy's response. The original comment letters or emails are included after the table.

Table H-2: SMP Workgroup Comments and Duke Energy Responses

Section	Comment	Duke Energy Response
Catawba Riverkeeper		
Appendix C	The SMP currently only cites that people shall not dump "debris" into the lake. The SMP needs a clearer definition to forbid leaves, twigs, branches, grass clippings and other yard waste. Include a clear protocol for how to handle such issues, especially for repeat offenders.	Dumping of leaves and yard waste was adding as an example in section 3.2, "Monitoring and Enforcement." The consequences for violations is referenced in the SMG.
North Carolina Department of Environmental Quality		
Acronyms and Abbreviations	Add NCDEQ to the list of acronyms.	Corrected.
Section 8.0	The phrase "an SMP Workgroup" is grammatically incorrect.	Corrected.
Section 8.0	Include the NC Department of Natural and Cultural Resources - Division of Parks & Recreation, and NC Department of Agriculture and Consumer Services - Division of Forest Resources in the agency consultation list for SMP updates.	Updated the name of the NC Division of Parks and Recreation and added the NC Department of Agriculture and Consumer Services - Division of Forest Resources.

Section	Comment	Duke Energy Response
Appendix C	The water willow beds classification should be expanded to include other native, naturally-occurring aquatic vegetation.	Water willow beds are identified separately in the SMGs because limited disturbance of water willow beds is allowed to provide for lake access, but not allowed for areas with other native, naturally occurring stable, wetland-type habitat and emergent vegetation. These other areas are classified as environmental areas and no disturbance is allowed. The Classifications and Lake Use Restrictions (see Appendix B) defines the environmental classification as stable, wetland-type habitat and emergent vegetation covering a defined area of shoreline. The definition provides examples of various species (...common types of emergent vegetation in environmental areas may include, but are not limited to: black willow (Salix nigra), alder (Alnus serrulata), buttonbush (Cephalanthus occidentalis), cattail (Typha latifolia), and rushes (Juncus effusus)). No removal of vegetation, construction, excavation, or shoreline stabilization is allowed inside the Project Boundary along shoreline classified as environmental. As such, these species are afforded additional protections and no access would be allowed through these areas.
Appendix C	The North Carolina Department of Environmental and Natural Resources is now the North Carolina Department of Environmental Quality.	Corrected.

Section	Comment	Duke Energy Response
Appendix C	The NCDENR Division of Land Quality is now the NCDEQ-Division of Energy, Mining, and Land Resources	Corrected.
Appendix C	NCDENR- Division of Parks and Recreation should be changed to NC Department of Natural and Cultural Resources	Corrected and NCDRCR was added to the acronym list.
Appendix C	NCDENR- Division of Water Quality should be changed to NCDEQ-Division of Water Resources.	Corrected.
North Carolina Wildlife Resources Commission		
Section 1.1	Replace the phrase "is comprised of" with comprises, is composed of, is made up of, or contains.	Corrected.
Section 1.2	Change SMPs to SMP.	Corrected.
Section 1.2	Change the sentence, "This included the shallow water fish habitat survey results…" to "This included the results of the shallow water fish habitat survey…"	Corrected.
Section 1.2	Change the sentence, "This order also required Duke Energy to conduct the woody debris study and file the results" to "This order also required Duke Energy to conduct and file the results of a woody debris study."	Corrected.
Section 1.2	Replace the phrase "is comprised of" with comprises, is composed of, is made up of, or contains.	Corrected.
Section 1.2	Change "required" to "requires."	Corrected.

Section	Comment	Duke Energy Response
Section 1.3	Change the sentence, "Future updates to the SMP may include shifting management of these areas completely to the RMP. The shoreline along the Islands and Project Recreation Sites will continue to be managed by the SMP" to "The shoreline along the Islands and Project Recreation Sites will continue to be managed by the SMP but future updates to the SMP may include shifting management of these areas completely to the RMP."	Corrected.
Section 2.0	Use a period instead of a dash in the Environmental classification definition.	Corrected.
Section 2.0	Use an em dash instead of the current format.	Corrected.
Table 2.	Explain why the shoreline miles in this table do not match with those provided in Section 1.1 of this document.	The two shoreline totals are measured along different elevation contours. Section 1.1 provides the shoreline miles (including islands) of each reservoir as measured at Normal Full Pond Elevation. Table 2 provides the shoreline classification lengths as shown on the shoreline classification maps. The shoreline classifications are depicted based on the average mean operating level at each reservoir. As a result, the shoreline classification maps are representative of real-world conditions.
Section 6.0	Describe the process for agencies to challenge SMP mapping accuracy.	Resource agency representatives are given the same opportunity to challenge SMP mapping accuracy as property owners and developers. The SMP was corrected to include resource agency representatives in the process.
Section 6.0	Identify if Federal Agencies are included in the consultation for challenges to SMP mapping accuracy.	Federal Agencies are included on Duke Energy's consultation list. The word "state" was removed from the SMP text.

Section	Comment	Duke Energy Response
Section 8.0	The North Carolina Department of Environmental and Natural Resources is now the North Carolina Department of Environmental Quality.	Corrected.
United States Fish and Wildlife Service (USFWS)		
1.1.10	Add a location description for Rocky Creek and Cedar Creek.	A location description was added.
8.1	Duke Energy should not reserve the right to make minor alterations to the SMP without public notice, resource agency, or FERC review to ensure flexibility in the continuous monitoring and regulation of lake use permitting activities. Minor alterations should be defined. If defined, I would be comfortable without consultation.	A detailed definition of allowable minor alterations is defined in Section 8.1. These minor alterations include classification changes affecting no more than 100 feet of shoreline at one time and typically result from misalignment between GIS layers used to generate maps or minor shifts in the more transient physical properties associated with some classifications (e.g. sand, silt, vegetation, etc.). The ability to reclassify relatively small segments of shoreline allows for the correction of evident mapping errors and to account for changes in shoreline characteristics where newly discovered resources such as archaeological or historic sites, Threatened or Endangered Species, Special Concern Species, or other areas of shoreline are deemed necessary to protect.
Appendix C	There was a statement about this SMP allows more boat slips than before. This should not be allowed because adding more boat slips to a recreational lake will impact aquatic species and the use of the lake.	The Shoreline Preservation Incentive Program was developed during relicensing in consultation with stakeholders and was included in the SMGs as part of the CRA. Previous SMGs allowed applicants for residential marinas to have these same numbers of slips, but did not require preservation of shoreline as is currently required.

Section	Comment	Duke Energy Response
Appendix C	Any activities within the shoreline area should be reviewed by the USFWS and State natural resource agencies for impacts to trust resources. We should discourage work activities during fish spawning season (January-May for diadromous fishes) and impacts to mussels, which are sensitive to sedimentation. Contractors must use appropriate BMP measures when conducting activities and should pay into a mitigation fund.	The SMP requires agency consultation and/or approvals for certain shoreline activities; Duke Energy has general permits through applicable federal and state regulatory agencies that define activities Duke Energy can allow without additional agency approval. Due to the volume of permits issued by Duke Energy it would be impractical and unduly burdensome to the agency(s) and the applicant to require agency approval for all lake use permit requests. Excavation activities are prohibited from March 1 through June 30. Additionally, no stabilization activities are allowed in shoreline areas classified as Impact Minimization Zone during this time. This time frame was included in previously-approved Project SMP, was developed in consultation with resource agencies and other stakeholders, and is included in various agency-issued general permits. Applicants for certain lake-use permits are required to pay a Habitat Enhancement Program fee. The Habitat Enhancement Program goals are the creation, enhancement and protection activities for wildlife and fish habitat.

Garrison, Brett A

From: Garrison, Brett A
Sent: Thursday, June 16, 2016 10:39 AM
To: 'Christied@dnr.sc.gov'; 'chris.goudreau@ncwildlife.org'; 'vetaylor@roadrunner.com'; 'bryan.tomkins@fws.gov'; 'swillis@lancastercountysc.net'; 'mdudley@scprt.com'; 'dchamblee@lincolncounty.org'; 'sam@catawbariverkeeper.org'; 'David.Caldwell@mecklenburgcountync.gov'; 'mlancaster@lnmc.org'; 'donna.lancasterdocks@gmail.com'; 'Pat.morrison@yorkcountygov.com'; 'jim_burke@ncsu.edu'; 'Lisa.Hagood@yorkcountygov.com'; 'ajames@scprt.com'; 'StroudR@dnr.sc.gov'; 'wallison@co.iredell.nc.us'; 'fred.tarver@ncdenr.gov'; 'scott.carpenter@burkenc.org'; 'Thomas_McCoy@fws.gov'; 'Ron.Pompey@yorkcountygov.com'; 'jmaxwell@maxwellholdings.org'; 'Rusty.Rozzelle@mecklenburgcountync.gov'; 'marshallb@dnr.sc.gov'; Abney, Michael A; 'tim@ncwf.org'; 'mmarley42@truvista.net'; 'shannon.deaton@ncwildlife.org'; 'joestowe@lakewyliemarinecommission.com'; 'lakejames@charter.net'; 'sharris@alexandercountync.gov'; 'kcarter@caldwellcountync.org'; 'jeubanks@catawbacountync.gov'; 'sstuart@chestercounty.org'; 'milton.pope@fairfield.sc.gov'; 'carolyn.hammond@kershaw.sc.gov'; 'vic.cerpenter@kershaw.sc.gov'; 'awooten@mcdowellgov.com'; 'david.larson@yorkcountygov.com'; 'accusweep@aol.com'; 'chuck@stogner.net'
Cc: Huff, Jennifer R; Pomaville, Leslie; Reagan, Kelvin K; Oakley, Mark
Subject: CW SMP Workgroup meeting follow-up

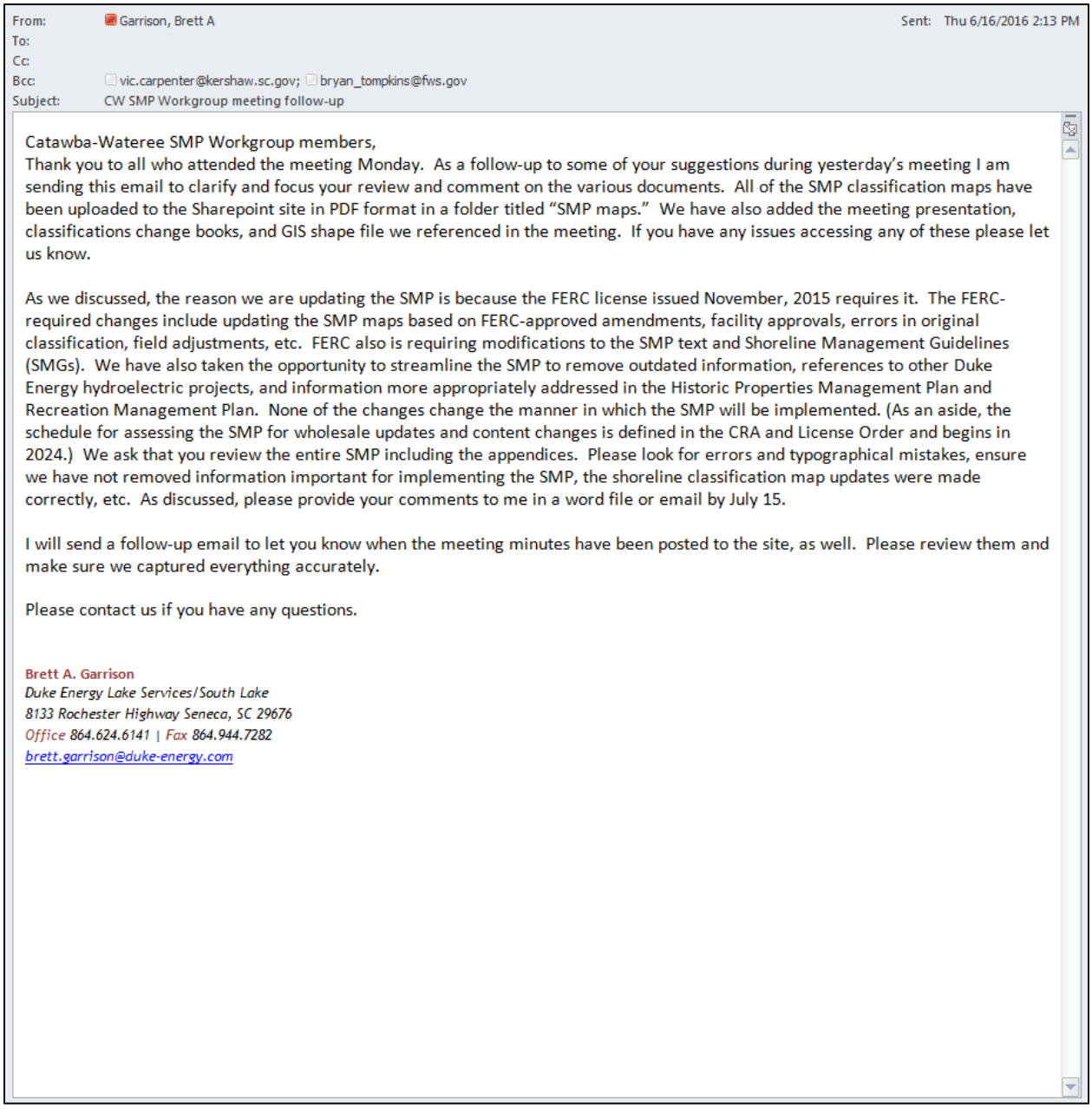
Catawba-Wateree SMP Workgroup members,
Thank you to all who attended the meeting Monday. As a follow-up to some of your suggestions during yesterday's meeting I am sending this email to clarify and focus your review and comment on the various documents. All of the SMP classification maps have been uploaded to the Sharepoint site in PDF format in a folder titled "SMP maps." We have also added the meeting presentation, classifications change books, and GIS shape file we referenced in the meeting. If you have any issues accessing any of these please let us know.

As we discussed, the reason we are updating the SMP is because the FERC license issued November, 2015 requires it. The FERC-required changes include updating the SMP maps based on FERC-approved amendments, facility approvals, errors in original classification, field adjustments, etc. FERC also is requiring modifications to the SMP text and Shoreline Management Guidelines (SMGs). We have also taken the opportunity to streamline the SMP to remove outdated information, references to other Duke Energy hydroelectric projects, and information more appropriately addressed in the Historic Properties Management Plan and Recreation Management Plan. None of the changes change the manner in which the SMP will be implemented. (As an aside, the schedule for assessing the SMP for wholesale updates and content changes is defined in the CRA and License Order and begins in 2024.) We ask that you review the entire SMP including the appendices. Please look for errors and typographical mistakes, ensure we have not removed information important for implementing the SMP, the shoreline classification map updates were made correctly, etc. As discussed, please provide your comments to me in a word file or email by July 15.

I will send a follow-up email to let you know when the meeting minutes have been posted to the site, as well. Please review them and make sure we captured everything accurately.

Please contact us if you have any questions.

1



From: Garrison, Brett A Sent: Thu 6/16/2016 2:13 PM
To:
Cc:
Bcc: vic.carpenter@kershaw.sc.gov; bryan_tompkins@fws.gov
Subject: CW SMP Workgroup meeting follow-up

Catawba-Wateree SMP Workgroup members,
Thank you to all who attended the meeting Monday. As a follow-up to some of your suggestions during yesterday's meeting I am sending this email to clarify and focus your review and comment on the various documents. All of the SMP classification maps have been uploaded to the Sharepoint site in PDF format in a folder titled "SMP maps." We have also added the meeting presentation, classifications change books, and GIS shape file we referenced in the meeting. If you have any issues accessing any of these please let us know.

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I will send a follow-up email to let you know when the meeting minutes have been posted to the site, as well. Please review them and make sure we captured everything accurately.

Please contact us if you have any questions.

Brett A. Garrison
Duke Energy Lake Services/South Lake
8133 Rochester Highway Seneca, SC 29676
Office 864.624.6141 | Fax 864.944.7282
brett.garrison@duke-energy.com

Garrison, Brett A

From: Sam Perkins <sam@catawbariverkeeper.org>
Sent: Friday, July 15, 2016 2:29 PM
To: Garrison, Brett A
Cc: vetaylor@roadrunner.com
Subject: RE: CW SMP Workgroup meeting follow-up

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Regarding the 2016 Draft Shoreline Management Plan (SMP):

I know much of the meeting and recent consideration for the SMP has revolved around the Effectiveness Assessment. I would be remiss if I failed to mention the SMP issue I am contacted about more than any other – the blowing of debris into the lake.

Throughout autumn, we at the Catawba Riverkeeper Foundation receive constant complaints about neighbors blowing leaves into Duke Energy's lakes (project boundary). We also sometimes receive complaints about grass being blown into the lakes. Winds often consolidate leaves in certain areas, which then have their lake bottom snuffed out by a thick layer of decaying leaves. Not only is this undesirable for lake users, it is not good for water quality. The decay of leaves and other yard waste consumes dissolved oxygen (bad for fish), and the material itself transports nutrients, which can later fuel an algal bloom. Pesticides and other chemicals might also be in transport.

Duke Energy's Lake Management staff have not acted on these instances. The SMP currently only cites that people shall not dump "debris" into the lake. The SMP needs a clearer definition to forbid leaves, twigs, branches, grass clippings and other yard waste. Additionally, Duke Energy's Lake Management staff need a clear protocol for how to handle such issues, especially for repeat offenders (warning, fine leveraged with ability to renew dock permit, etc).

Nutrient overloading and depletion of dissolved oxygen are two significant detriments to water quality that must be addressed. Duke Energy's lakes are not dumping grounds.

This could also be a prime opportunity to reach out to lakefront homeowners. In fact, Duke Energy and the Catawba Riverkeeper did just this 10 years ago to remind them which authorities should be contacted in which cases, as well as to provide information on hydrilla (at the time, a major problem).

Please let me know if you have any questions. At this point, with a window open to improve the SMP, I hope we can take positive action that will benefit homeowners, boaters, swimmers, wildlife, water quality and Duke Energy.

Sincerely,

--
Sam Perkins

Catawba **RIVERKEEPER®**
Catawba Riverkeeper Foundation, Inc.
715 N Church St, Suite 120

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Acronyms and Abbreviations

AMSL	above mean sea level
Catawba-Wateree Project	Catawba-Wateree Hydroelectric Project
Commission	Federal Energy Regulatory Commission
DCZ	Downstream Clear Zone
Duke Energy	Duke Energy Carolinas, LLC or the Licensee
DE-LS	Duke Energy Lake Services
FERC	Federal Energy Regulatory Commission
ft	feet or foot
GIS	Geographic Information System
HEP	Habitat Enhancement Program
IMZ	Impact Minimization Zone
LUPS	Lake Use Policy Statements
NC	North Carolina
NCWRC	North Carolina Wildlife Resources Commission
PA	Programmatic Agreement
Project	Catawba-Wateree Hydroelectric Project
RMP	Recreation Management Plan
SCDNR	South Carolina Department of Natural Resources
SCDHEC	South Carolina Department of Health and Environmental Control
SHPO	State Historic Preservation Office
SMGs	Shoreline Management Guidelines
SMP	Shoreline Management Plan
SMP Maps	Shoreline Classification Maps
SSTSP	Shoreline Stabilization Technique Selection Process
SWFHS	Shallow Water Fish Habitat Survey
THPO	Tribal Historic Preservation Office
TPM	True Public Marina

Number: 1 Author: frtarver Subject: Sticky Note Date: 7/14/2016 3:08:50 PM
NC Department of Environmental Quality (NCDEQ)

documentation of agency consultation, justification for the reclassification, and a copy of the map from the existing SMP Maps showing the location of the proposed reclassification.

Number: 1 Author: frtarver Subject: Highlight Date: 6/24/2016 4:27:14 PM

Number: 2 Author: frtarver Subject: Highlight Date: 6/24/2016 4:27:22 PM

Number: 3 Author: frtarver Subject: Sticky Note Date: 6/24/2016 4:29:31 PM
You may consider including NC Department of Natural and Cultural Resources - Division of Parks & Recreation, and NC Deparment of Agriculture and Consumer Services - Division of Forest Resources.

7.0 Public Outreach and Education

Duke Energy provides information about shoreline management topics on its website. The website provides dynamic mapping of SMP information allowing users to spatially identify shoreline information and find locations by entering valid street addresses as well as downloading related documents. This website uses a map interface to provide aerial images and maps as well as address location services; this information is coupled with select portions of Duke Energy's GIS data to provide the public with access to comprehensive SMP data while delivering the information via a user-friendly interface. In addition, the website provides information on the procedures for issuance of a permit and approval, including a description of the application process and actual application forms for several of the lake use permitting programs.

8.0 SMP Review and Update Process

Duke Energy agreed, as part of the Comprehensive Relicensing Agreement, to annually convene an SMP Workgroup of interested stakeholders to discuss implementation of the SMP including the shoreline classifications (SMP Maps) and the SMGs. These meetings would establish methodology and parameters for the SMG effectiveness evaluation; allow for discussion of opportunities and recommendations for periodic modifications to the SMP maps and SMGs; and be conducted in preparation for any needed ten year updates of the SMP.

As required by Article 409, Duke Energy will review the SMP every 10 years in consultation with U.S. Fish and Wildlife Service, the North Carolina Department of Environment and Natural Resources, the North Carolina Wildlife Resources Commission, the South Carolina Department of Parks, Recreation, and Tourism, the South Carolina Department of Natural Resources, as well as other interested stakeholders to determine whether the SMP needs revision. Based on the results of this consultation, Duke Energy will file a report to the Commission in 2025 to include an evaluation of the adequacy of the SMP, and to describe whether or not revisions to the SMP, SMP Maps, or the SMGs are needed. If changes are needed, an updated SMP will be filed with

a. The facility will have > 65 docking/mooring/storage spaces for watercraft;

b. The facility will include gasoline dispensing equipment (other than hand-carried, portable tanks);

c. The facility will moor/store > 25 watercraft with Marine Sanitation Devices (MSD);

d. The facility will moor a watercraft that is specifically used to provide cruises to the public where meals are served; or

e. The facility will moor watercraft that will be used for human habitation. (*Exception: A Commercial Marina Facility may be exempted from the requirement to provide on-site marine pump-out facilities, as a result of items a–c only, if written proof from a state or local agency is provided to document that the facility will not be allowed to dispose of waste collected from watercraft because of state or local regulations.*)

28. Liquid and Solid Waste Facilities – Structures built within the Project Boundaries must not contain sinks, toilets, showers, or any other type of device that could cause any liquid or solid waste to be discharged into the lake. (*Exception: Gasoline dispensing equipment, water supply lines supported by approved pump-out facilities, or facilities for which such devices were specifically approved under a complete, Commercial Marina Facility application post-marked to DE-LS prior to June 1, 1996, are exempted from this requirement.*)

29. Gasoline Dispensing – New, expanded, or rebuilt Commercial Marina Facilities that are approved to dispense gasoline within the Project Boundaries must provide petroleum absorbent materials or similar best available technology at all the slips dedicated/available for gasoline dispensing.

30. Setbacks – All facilities shall be set back along the shoreline at least 200 ft from the outermost project-front property corners of the development, from any privately owned in-holdings that are not part of the proposed commercial facility, and/or according to local government zoning requirements, whichever provides for a greater distance. This setback along the shoreline is determined by creating a 200-ft radius from the property corners on the project-front (Figure 1B-7).

31. Islands – New Commercial Marina Facilities for boat launching/docking/mooring will not be authorized for construction from islands.

32. Water Willow Beds – Applicants are encouraged to avoid activities that could have an adverse impact upon existing water willow beds. Unavoidable impacts should be confined to the sides of water willow beds to minimize disruption of their function as shallow water fish habitat. No floating structures or other extraneous facilities (e.g., gazebos, decks) may be constructed over water willow beds. The width of walkways over water willow beds will be limited to three ft. Removal of water willow for continued lake access may be allowed, but only for the specific and limited area necessary.

Number: 1 Author: frtarver Subject: Sticky Note Date: 7/14/2016 4:23:53 PM
Water willow beds - classification should be expanded to include other native, naturally occurring aquatic vegetation.

Section 3 – Excavation Program

A. General

DE-LS has developed an Excavation Programmatic Agreement (PA) in consultation with resource agencies, and the requirements of this PA are incorporated in the Excavation Program. The Excavation Programmatic Agreement establishes guidance for obtaining authorization for the removal of soil, sand, silt, or rock materials from within the FERC Project boundaries of Duke Energy lakes. The Excavation Program does not circumvent the necessity for the applicant to obtain prior federal (e.g., US Army Corps of Engineers), state (e.g., NC Dept. of Environment and Natural Resources [NC-DENR], SC Dept. of Health and Environmental Control [SCDHEC]) and local (e.g., county) approvals as determined by those agencies for any excavation activities. This program will ensure compliance with federal, state, and local regulations, including those of the FERC. DE-LS may issue permits for minor excavation activities such as those required to support the installation and maintenance of bulkheads, boat launching, and access to docking facilities, small water intakes, utility lines, or other activities that do not require FERC approval. Excavation applications require review by the appropriate resource agencies and some also require FERC approval. Any excavation or shoreline stabilization work needed to support a FERC application is also subject to FERC approval and will be included as a component of the primary FERC application. All parties desiring to excavate within the Project Boundaries must first contact DE-LS and obtain written authorization prior to beginning work. DE-LS may require the applicant to enter into a lease/permit or other form of conveyance and sign a user's agreement to ensure that long-term operation of the facility or use of Project lands and waters does not conflict with DE-LS objectives. (***NOTE FOR ALL NON-PROJECT USE APPLICANTS****: Duke Energy is neither the advocate nor the adversary for non-Project use applications, such as those for Excavation. The applicant, not DE-LS, is responsible for negotiating the application process with other permitting and regulatory authorities.*)

Number: 1 Author: frtarver Subject: Highlight Date: 7/14/2016 3:06:54 PM

Number: 2 Author: frtarver Subject: Sticky Note Date: 7/14/2016 3:07:38 PM
NC Department of Environmental Quality (NC-DEQ)

B. Criteria for an Excavation

1. Special Rulings – Since every possible scenario can not be anticipated, DE-LS reserve the right to make special rulings in cases not specifically covered by these guidelines or to prevent violating the intent of the permitting programs.

2. Compliance with Regulations – All excavations must comply with all applicable local, state, and federal regulations. Also, any necessary governmental permits or approvals, a FERC order (if applicable), and written authorization from DE-LS must be obtained by the applicant prior to beginning work within the Project Boundaries.

3. South Carolina – All excavations in South Carolina, less than 150 cubic yards, must conform to the requirements of the General Permits issued by the SCDHEC or the US Army Corps of Engineers, as applicable. Applicants in South Carolina proposing excavations that are not covered under the General Permit, or are greater than 150 cubic yards, must receive prior authorization from the SCDHEC or the US Army Corps of Engineers, as applicable before submitting their completed application to DE-LS.

consideration is given in writing by the SCDHEC or the NCDENR-Division of Land Quality.

12. Double Handling – Double handling of excavated material within the full pond elevation contour will not be allowed. Therefore, all excavated material must be placed above the full pond elevation contour in one handling unless the spoil material is loaded in a barge for transport outside the Project Boundaries. Barge-loaded spoil must be directly off-loaded outside the full pond elevation contour and cannot be loaded into transport equipment (e.g., trucks, conveyors) within the full pond elevation contour.
13. Erosion and Sedimentation Control – All excavated material and disturbed shoreline must be stabilized to prevent erosion and runoff into the lake.
14. Minimization of Disturbance – Applicants must excavate and disturb only what is absolutely necessary to achieve the excavation projects stated purpose (Figures 3B-3 through 3B-5).
15. Unauthorized Excavation Activities – Excavation permits will not be issued for the following activities:
    a. Channeling to create additional shoreline or any other excavation that would alter the Project Boundaries or full pond elevation contour;
    b. Any excavation that would impact threatened or endangered species, historic properties, or environmentally important areas;
    c. Excavation activities not associated with maintaining access to an existing permitted facility or a proposed facility for which the owner has submitted an application and received written approval from DE-LS for its construction; and
    d. Excavation activities that support a new marina facility (i.e., within five years of DE-LS approval) if excavation was not part of the original application

    (*Note: Areas with characteristics listed under item b above may be identified in the SMP [where applicable]. Also note that certain public need projects undertaken by public entities may not have another practicable alternative, and therefore may have some unavoidable impacts on the lake's scenic, environmental, and cultural values. Such public need projects may be allowable, provided the applicant can develop an adequate mitigation plan.*)
16. Sand Mining – Sand mining operations within the Project Boundaries, usually on headwater portions of the reservoir, may be authorized in accordance with the Excavation and Conveyance Program guidelines to the maximum practicable extent. Operations outside the Project Boundaries on Duke Energy property will have to be authorized with concurrence of Duke Energy's Real Estate Department.
17. Return Water – Return water associated with hydraulic excavation must re-enter the lake in the same general vicinity and cove as the excavation, to the maximum practicable extent.

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NCDEQ-Division of Energy, Mining and Land Resources

the primary function of the Project Recreation Site, potential site impacts, and other factors. Additional resource agency consultation may also be required as determined by Duke Energy.

    k. The applicant executes a lease agreement with Duke Energy with terms, including liability indemnification and insurance requirements, and pays any applicable fees, as specified by Duke Energy.

5. Heat Exchange Coils for Heat Pumps (Geo-thermal Systems) – DE-LS may authorize these structures, provided they do not cause a safety, navigational or environmental hazard. The coils must be anchored to the lakebed and located at or below the *Critical Reservoir Elevation* (CRE) (see Glossary) on the specific lake unless attached underneath an existing permitted facility in such a manner that the coils and return/supply line will not become a safety, navigational or environmental hazard. All supply/return piping not attached underneath an existing permitted facility must be buried in accordance with the guidelines for submarine utility lines included in the Conveyance Program and located adjacent to the confines of the applicant's project-front property. Applications are made by letter from the applicant.
6. Minor Water Withdrawals – DE-LS may authorize a single irrigation pump for private home use, provided the pump has a rated horsepower of 2 hp or less and is used exclusively for the adjoining project-front lot. Applications are made by letter from the applicant. DE-LS may also authorize small water intakes that do not exceed a maximum instantaneous withdrawal rate of 1 million gallons per day (MGD) within the Conveyance Program (filing with the FERC typically not required). All minor water withdrawals should, to the maximum practicable extent: (a) use passive screens; (b) provide screen openings not to exceed one centimeter; and (c) provide a maximum intake velocity of 0.5 fps or less. For waters with anadromous fish, the applicant must consult with appropriate federal and state resource agencies and determine the appropriate intake and screen design specifications. Additionally, all minor water withdrawals must meet the requirements for submarine utility lines included in the Conveyance Program unless the intake line and intake head are attached underneath an approved facility (e.g., private pier, marina slip). (*NOTE: Major water withdrawals include both single and cumulative water withdrawals exceeding a 1 MGD maximum instantaneous withdrawal capacity. These larger withdrawals must be approved under the Conveyance Program and require FERC approval. Additionally, in North Carolina, withdrawals greater than or equal to 100 thousand gallons per day require registration with the NCDENR-Division of Water Resources.*)
7. Satellite Dishes – DE-LS will not authorize these facilities to be located within the Project Boundaries of a reservoir.
8. Ski Ramps/Slalom Courses – DE-LS may authorize ski ramps, slalom courses, and other similar structures, provided: 1) the state wildlife resources agency approves of the activity; 2) the facility and its use will not impact areas identified as Environmental on the SMP; 3) SCDHEC approval is obtained in South Carolina; 4) there are no objections from adjacent property owners; and 5) the applicant complies with the terms and

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6. Fallen Trees – Trees that fall into the lake and do not block or unnecessarily restrict navigational access should be left in place to benefit fish and/or wildlife.
7. Fallen Trees as Fish Habitat – Trees that are allowed to be cut from the land or shoreline, and where there is a desire to create fish habitat, should be securely anchored along the shoreline to improve fish and/or wildlife habitat or placed in the buffer as a downed log. Trees should be securely attached or anchored to prevent movement away from the shoreline. Trees that need to be cut but are away from the shoreline should be placed within the buffer to serve as downed logs.
8. Viewshed Management – Standing live trees (> 3 inches dbh) that are intentionally removed for the creation of viewsheds or access paths shall be replaced by a quantity of trees totaling the diameter of the tree removed. Replacement trees are not to be less than two inches in diameter (e.g., three 2-inch trees may replace one 6-inch tree). Diameter shall be measured at breast height (dbh) four and a half ft 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 and sub-canopy trees should be replaced with similar sub-canopy species). Soil types, soil moisture, and shade tolerance should be considered when selecting replacement trees.
9. Pruning – Individual trees may not be pruned except for viewsheds and access paths as provided below.
10. Debris Removal Following Storms – 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.
11. Grubbing or Grinding Tree Stumps – Grubbing or grinding of tree stumps of any size is not allowed except in the establishment of footpaths (large trees > 10 dbh must be avoided) and as approved as part of authorized stabilization activities.
12. Herbicide Use – Chemicals (herbicides) approved for use in water shall not be used to kill native non-invasive vegetation. Chemicals (herbicides) approved for use on land shall not be used to kill native non-invasive vegetation except poison ivy, poison sumac, and/or poison oak or exotic species listed in the NCDENR-Division of Parks and Recreation Exotic Plant Guidelines #30 as allowed in Catawba River Basin Permanent Riparian Buffer Protection Rules.
13. Aquatic Herbicides – Chemical control of vegetation in or over water must be by approved aquatic herbicides. In North Carolina, approved aquatic herbicides applied to a public water body must be applied by a state certified aquatic pesticide applicator. In South Carolina, herbicides applied to a water body used for public drinking water must have permission from the SCDHEC. In addition, all aquatic herbicide labels require applicators to notify a state natural resource agency before their application of a herbicide to public waters.

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NC Department of Natural and Cultural Resources (NCDNCR)

use in the buffer area changes. The footprints of existing uses such as agriculture, buildings, commercial and other facilities, maintained lawns, and utility lines are exempt. Within this 50 ft of buffer, the first 30 ft closest to the water, referred to as Zone 1, is to remain undisturbed with the exception of certain activities. The outer 20 ft, referred to as Zone 2, must be vegetated, but certain additional uses are allowed.

4. Local Riparian Buffer Ordinances – All local governments that have land use authority along the mainstem of the Catawba River may adopt local riparian buffer ordinances. These local riparian buffer ordinances in North Carolina may be approved by the NCDENR- Division of Water Quality if it is determined by the Division that the local ordinances provide equal to or greater protection for water quality than the Catawba River Riparian Buffer Rule. Buffer regulations in South Carolina are governed by local ordinance.

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NCDEQ-Division of Water Resource

Glossary

Activity – Any occupancy or use of lands and waters within the Project Boundaries or Duke Energy-owned peripheral strip.

Annual Average Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD) that the facility would have to operate at continuously for the calendar year in question to withdraw or discharge a given total volume of water. *(Note: See differences between annual peak capacity and ultimate capacity.)*

Annual Peak Capacity – A term used in conjunction with water intakes and wastewater effluent discharges to refer to the highest instantaneous raw water withdrawal rate or wastewater discharge rate, both of which are expressed in million gallons per day (MGD) that the facility will reach in a given calendar year. (*Note: See differences between annual average capacity and ultimate capacity.*)

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.

Area of Potential Effect – Term used when considering potential lake use activity effects on historic and archaeological resources and describing the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist.

Garrison, Brett A

From: Goudreau, Chris J. <chris.goudreau@ncwildlife.org>
Sent: Friday, June 24, 2016 12:25 PM
To: Garrison, Brett A; Christied@dnr.sc.gov; vetaylor@roadrunner.com; swillis@lancastercountysc.net; mdudley@scprt.com; dchamblee@lincolncounty.org; sam@catawbariverkeeper.org; David.Caldwell@mecklenburgcountync.gov; mlancaster@lnmc.org; donna.lancasterdocks@gmail.com; Pat.morrison@yorkcountygov.com; jim_burke@ncsu.edu; Lisa.Hagood@yorkcountygov.com; ajames@scprt.com; StroudR@dnr.sc.gov; wallison@co.iredell.nc.us; Tarver, Fred; scott.carpenter@burkenc.org; Thomas_McCoy@fws.gov; Ron.Pompey@yorkcountygov.com; jmaxwell@maxwellholdings.org; Rusty.Rozzelle@mecklenburgcountync.gov; marshallb@dnr.sc.gov; Abney, Michael A; tim@ncwf.org; mmarley42@truvista.net; Deaton, Shannon L; joestowe@lakewyliemarinecommission.com; lakejames@charter.net; sharris@alexandercountync.gov; kcarter@caldwellcountync.org; jeubanks@catawbacountync.gov; sstuart@chestercounty.org; milton.pope@fairfield.sc.gov; carolyn.hammond@kershaw.sc.gov; awooten@mcdowellgov.com; david.larson@yorkcountygov.com; accusweep@aol.com; chuck@stogner.net; vic.carpenter@kershaw.sc.gov; bryan_tompkins@fws.gov
Cc: Huff, Jennifer R; Pomaville, Leslie; Reagan, Kelvin K; Oakley, Mark
Subject: RE: CW SMP Workgroup meeting follow-up
Attachments: 2016 C-W SMP - DRAFT - wrc edits.pdf; SMP Effectiveness Assessment - wrc edits.docx

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Here are my comments on the 2016 Draft SMP and the Effectiveness Assessment.

Overall, I like the composition and tone of the SMP. My comments are mainly editorial.

For the Effectiveness Assessment, I think Duke should prepare a second draft reflecting the feedback from the recent meeting and send it back out to the workgroup.

I also looked at the "change books" for each development in NC. They are helpful in seeing how the shoreline designations have changed; however, I do have one criticism. In a number of cases multiple changes are combined in one sheet making it impossible to see things in sufficient detail. The aerial photo portion of following sheets should be zoomed in or split into multiple sheets.

Bridgewater	2, 4, 6, 8, 10, 15, 17, 20, 27, 42, 43, 45, 52, 53, 55, 56, 69
Rhodhiss	9, 11, 12
Hickory	6
Norman	5, 16, 22, 26
Wylie	36, 39

1

Number: 1 Author: Chris Goudreau Subject: Comment on Text Date: 6/24/2016 11:15:35 AM
Although commonly used, this phrase is grammatically incorrect. Replace with one of the following:

comprises
is composed of
is made up of
contains

1.0 Introduction

Duke Energy Carolinas, LLC (Duke Energy) is the Federal Energy Regulatory Commission (FERC or Commission) licensee for the Catawba-Wateree Hydroelectric Project (FERC No. 2232, Catawba-Wateree Project or Project).

The FERC license identifies all Project purposes (such as hydro station and reservoir operation and maintenance, flowage, public recreation, public access, protection of environmental resources, and shoreline control) and specifies requirements associated with operation of the Project. The Licensee is responsible for operating and maintaining the Project in accordance with the license requirements and for ensuring Project lands and waters are protected and maintained for their designated Project purposes. Licensees have an ongoing responsibility to supervise and manage shoreline development to ensure it is not inconsistent with Project purposes, including protection and enhancement of the Project's scenic, recreational, cultural, and other environmental values. This Shoreline Management Plan (SMP) is a comprehensive management tool for managing requests for shoreline activities within the FERC Project Boundary in a manner consistent with Project purposes.

This SMP includes the following components:

- SMP Maps (Appendix A)
- Shoreline Classifications and Lake Use Restrictions (Appendix B)
- Shoreline Management Guidelines (SMGs) (Appendix C), which includes the Shoreline Stabilization Technique Selection Process (SSTSP)
- Classification Rules (Appendix D)
- Process for Structure Renovation and Removal (Appendix E)
- True Public Marina Requirements (Appendix F)
- Shoreline Stabilization Technique Selection Process (Appendix G)
- Consultation Record (Appendix H)

1.1 Project Area Description

The Catawba-Wateree Hydroelectric Project [1]~~is~~ comprised of 13 hydropower plants, 11 developments, and 11 lakes or reservoirs. The Catawba-Wateree Project spans over 225 river miles and encompasses approximately 1,795 miles of shoreline within nine counties in North

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Number: 4 Author: Chris Goudreau Subject: Comment on Text Date: 6/24/2016 11:16:10 AM
results of a
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Number: 6 Author: Chris Goudreau Subject: Comment on Text Date: 6/24/2016 11:16:15 AM
and file the results of a
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developed and implemented SMGs for the Catawba-Wateree Project reservoirs in the mid-1980s, the original SMGs were then implemented at other Duke Energy hydroelectric projects in North and South Carolina by the late-1980s. Each hydroelectric project now has its own independent [2]SMP[1]. This SMP and its SMGs now apply only to the Catawba-Wateree Project.

In 1994, Duke Energy revised the SMGs for the Project and included them in the initial comprehensive SMP filed with FERC (October 11, 1994). On February 2, 1996, the Commission issued an order requiring Duke Energy to develop a plan to further refine the SMP. On February 3, 1997, Duke Energy filed with the Commission a plan for reviewing and revising the SMP to include proposed measures for: consultation with resource agencies and other concerned stakeholders; identification and protection of shallow water fisheries, terrestrial species habitats and aquatic plant management; reclassification of the Project reservoir shoreline areas; and proposed recreation facilities and upgrades. Duke Energy also proposed to develop a shoreline classification system and establish appropriate lake use restrictions associated with critical habitats areas. The Commission issued an Order on June 10, 1998, approving Duke Energy's proposed plan for the SMP (83 FERC ¶ 62,223).

On September 30, 1998, and supplemented on May 28, 1999, Duke Energy filed the revised SMP maps, shoreline classifications, and associated lake use restrictions for the Project. This included [4]the shallow water fish habitat survey (SWFHS) [3]~~results~~ and maps delineating the various shoreline habitat types, revisions to the shoreline classification system which defines the allowable uses and restrictions on shoreline uses; and the Shoreline Stabilization Technique Selection Process (SSTSP), as required by the February 2, 1996 Order. On, December 1, 2000, the Commission issued an Order Modifying and Approving the Revised Shoreline Classification Maps (93 FERC ¶ 62,159). This order also required Duke Energy to [6]conduct [5]~~the~~ woody debris study[7]~~and file the results~~.

On July 30, 2001, with supplements filed on September 1, 2001, and July 31, 2002, Duke Energy filed an application with the Commission to amend the SMP. The revised SMP consisted of the following components: (1) the SWFHS and maps delineating various habitat types (these data and maps were used as a basis for the classification maps); (2) the shoreline classification system which defines the allowable uses and restrictions associated with each lake use and maps which delineate the various categories of shoreline uses; (3) proposed recreational improvements at the

Project reservoirs; (4) the SSTSP; (5) the Access Area Improvement Initiative (AAII); (6) the Riparian Education Program; (7) the Structure Renovation Process; (8) the True Public Marina Program and; (9) the Habitat Enhancement and Woody Debris Management Program. FERC approved this revised SMP (2003 SMP) on October 15, 2003 (105 FERC ¶ 62, 027).

As part of the 2003 SMP, Duke Energy, the North Carolina Wildlife Resources Commission (NCWRC), and the South Carolina Department of Natural Resources (SCDNR) collaboratively established the Habitat Enhancement Program (HEP). The HEP was developed to resolve issues associated with shoreline development and protection or mitigation of woody debris within the Project. The HEP also provides an effective means for allowing continued private and public recreational access to Project lakes while also cooperatively enhancing fish and wildlife habitat.

Duke Energy began relicensing the Project in 2003. Relicensing stakeholders were interested in lake use permitting and shoreline management. Duke Energy convened study teams comprised of resource agencies and other interested stakeholders in North and South Carolina to evaluate shoreline management at the Project. The shoreline management study teams were convened to: 1) update the shoreline classification maps to incorporate shoreline development (e.g., piers, shoreline stabilization, water intakes, commercial marinas, etc.), and navigational hazards identified by the wildlife resource agencies and additional data gathered by other relicensing studies; 2) revise and update the SMGs previously revised in 1996 and submitted with the 2001 filing of the SMP; and 3) revise shoreline classification definitions to reflect changes and updates. The shoreline maps, SMGs, and definitions were updated because of changes in development activities that had taken place within the Project Boundary since the filing of the 2003 Commission approved SMP. Between 2004 and 2006 and in conjunction with Project relicensing, a total of 30 study team meetings were held related to shoreline management.

On August 29, 2006, as part of the Project License Application, Duke Energy filed updates to the shoreline classification maps, SMGs, and shoreline classification definitions. These updates were also included as an appendix to the Comprehensive Relicensing Agreement filed with the license application. Implementation of the 2006 updates to the maps, SMGs, and definitions filed with the license application began on September 1, 2006. Since 2006, the Commission has approved other shoreline reclassifications and the correction of mapping errors (See 150 FERC ¶

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62,179 (2015); 150 FERC ¶ 62,046 (2015); 136 FERC ¶ 62,084 (2011); 126 FERC ¶ 62,121 (2009); 123 FERC ¶ 62,040 (2008); 118 FERC ¶ 62,072 (2007)).

On November 25, 2015, the Commission issued the Order Issuing New License (153 FERC ¶ 62,134) for the Catawba-Wateree Project. Article 409 of the Project License required Duke Energy to submit an updated SMP incorporating the 2003 SMP, as amended, with the following modifications:

(1) A provision for addressing any Licensee-requested authority to make changes to the SMP, Shoreline Classification Maps, or SMGs without prior Commission approval, along with an explanation of the type, nature, and scope of the Licensee's authority to make such changes;
(2) A provision for addressing how and when shoreline reclassification requests, including identified mapping errors, will be filed with the Commission for approval; and
(3) A provision that every 10 years, the Licensee must file a report describing whether or not revisions to the SMP, including the Shoreline Classification Maps and SMGs, are needed. The report must include an evaluation of the adequacy of the SMP and whether or not changes are warranted. If revisions are needed, the Licensee may choose to either (a) provide a plan and schedule for filing the revision, or (b) file the revised SMP with the report (red-line documents are preferred so that plan modifications can be easily identified).

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requires

1.3 Goals and Objectives of the SMP

The primary goal of the SMP is to provide for public and private access to Project lands and waters while appropriately managing the Project's natural and cultural resources and protecting the Project's primary function of electricity production while maintaining compliance with Articles 409 and 411 of the Project License, and consistent with other license requirements.

To support this goal, Duke Energy's objectives are to:

- Use appropriate data (e.g., SWFHS maps, digital aerial photography, and Recreation Use and Needs Study) to develop the SMP
- Improve this SMP based upon experience gained while implementing the 2003 SMP

- Update the 2003 SMP to appropriately coordinate with other Project plans (e.g., Recreation Management Plan (RMP), Historic Properties Management Plan, species protection plans, etc.), and remove redundant information
- Meet FERC requirements set forth in Article 409 of the License
- Refine the 2006 shoreline classification maps to account for changes in shoreline development and mapping errors identified since that time
- Provide a tool for use by Duke Energy, resource agencies, and FERC staff to review requests for use of the Project shorelines and resources
- Consult with appropriate resource management agencies to:
  - Identify environmentally valuable shoreline habitat for aquatic and terrestrial species and provide appropriate protections for such habitat
  - Protect important cultural and tribal resources
  - Describe how agencies' and other stakeholders' comments and recommendations were or were not incorporated into the SMP

Management of Islands and Project Recreation Sites are addressed in both the SMP and RMP. ~~Future updates to the SMP may include shifting management of these areas completely to the RMP.~~ The shoreline along the Islands and Project Recreation Sites will ~~continue to~~ be managed by the SMP.

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...but future updates to the SMP may include shifting management of these areas completely to the RMP.

2.0 Shoreline Classifications Overview

Duke Energy uses a shoreline management classification system to categorize the Project shoreline based on the characteristics of the shoreline. The shoreline around all Project lakes was inventoried to identify areas of importance for wildlife, fish spawning and rearing, and cultural resources, and specific lake use restrictions were created to protect and enhance these resources. Duke Energy classifies the shorelines of the reservoirs, as identified in the SMP maps (Appendix A), to reflect the current shoreline uses, other characteristics of the shoreline, and to provide guidance for consideration of future lake use requests.

Each request for non-Project use of Project lands and waters is evaluated in the context of the associated shoreline classifications. The Shoreline Classifications and Lake Use Restrictions (Appendix B) are identical to those developed during Project relicensing and included in the Comprehensive Relicensing Agreement. In order to maintain consistency with other

management plans and FERC terminology, the previously referenced Public Access Areas are now referenced as Project Recreation Sites. Project shoreline classifications are generally summarized below; see the Shoreline Classifications and Lake Use Restrictions (Appendix B) for additional detail.

- **Environmental**—Vegetated areas or cove heads with stream confluences. These types of shorelines exist where either of the following two criteria are met: 1) stable, wetland-type habitat and emergent vegetation ~~, and~~ or 2) intermittent or permanent streams enter the upper ends (i.e., heads) of shallow coves (with or lacking vegetation). The primary importance of these areas is to provide spawning, rearing, and nursery habitat for fish, and rearing, nursery and adult habitat for amphibians, reptiles and birds. No vegetation removal, construction, excavation, or shoreline stabilization is permitted.
- **Bottomland Hardwood Area**—Areas typically consisting of a diverse and well-developed tree canopy consisting of hydrophytic tree species such as red maple, blackgum, sweetgum, willow oak, laurel oak, water oak, green ash, sycamore, river birch and black willow. The soils are typically sandy, organically rich, alluvial soils that exhibit hydric soil conditions. These areas have gentle slopes and often are associated with a drainage area or stream confluence. As such, they are often found concurrently with Environmental areas. No vegetation removal, construction, excavation, or shoreline stabilization is permitted.
- **Natural**— These areas have characteristics (i.e., shallow water, isolated berms, significant cultural resources or significant terrestrial habitat areas) that make most types of development inside the Project Boundaries undesirable from an overall lake management standpoint. No vegetation removal, construction, or excavation is permitted.
- **Impact Minimization Zone (IMZ)**—Project lands and waters that have specifically-identified importance on a given lake from a scenic, environmental, or cultural standpoint but protection of those important values does not necessarily preclude private, commercial, business or industrial access to the lake.
- **Commercial Marina**— Project lands and waters where boats can be launched, retrieved or moored, and where provisions for food services, convenience retailing such as petroleum sales, wet and dry storage of watercraft and other activities customarily associated with marinas, private recreation areas and yacht clubs take place.

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The shoreline miles in this table do not match with those provided in Section 1.1 of this document. Please explain.

Table 2. Shoreline Classification Totals

Shoreline Classification	Symbol	Lake James		Lake Rhodhiss		Lake Hickory		Loudoun Shoals		Lake Norman		Mountain Island	
		Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent
Bottomland Hardwood		-	0.0%		0.0%	-	0.0%	0.7	2.3%	1.0	0.2%	0.1	0.1%
Business Industrial		0.1	0.1%	0.4	0.4%	0.9	0.8%	-	0.0%	4.1	0.8%	0.1	0.2%
Commercial Marina		1.8	1.2%	0.3	0.3%	1.5	1.3%	-	0.0%	6.7	1.2%	-	0.0%
Environmental		21.5	14.4%	26.1	27.2%	16.7	15.2%	7.9	24.0%	52.8	9.4%	35.6	37.7%
Future Commercial Marina		9.3	6.2%	12.3	12.9%	1.3	1.2%	2.1	6.2%	7.2	1.3%	-	0.0%
Future Public Recreation		30.9	20.7%	2.2	2.3%	2.9	2.6%	1.5	4.4%	25.4	4.5%	14.4	15.3%
Future Residential		40.1	26.9%	19.9	20.8%	16.8	15.3%	2.6	7.7%	58.2	10.3%	4.7	4.9%
Future Residential Marina		0.7	0.5%	1.0	1.1%	2.7	2.5%	0.3	0.8%	9.5	1.7%	3.1	3.3%
Impact Minimization Zones		8.6	5.8%	1.4	1.4%	1.7	1.6%	3.5	10.6%	10.0	1.8%	3.1	3.3%
IMZ Developed		0.7	0.5%	0.3	0.3%	0.5	0.5%	0.4	1.3%	3.1	0.5%	1.3	1.3%
Natural Areas		8.5	5.7%	26.7	27.9%	0.1	0.1%	3.5	10.5%	6.8	1.2%	4.4	4.6%
Natural Isolated Berm			0.0%	0.1	0.1%	0.0	0.0%	0.2	0.6%	2.1	0.4%	4.4	4.7%
Project Operations		2.2	1.5%	0.3	0.3%	1.7	1.6%	1.4	4.1%	3.7	0.7%	2.8	3.0%
Public Infrastructure		0.5	0.4%	2.4	2.5%	2.9	2.6%	0.4	1.2%	27.4	4.9%	9.0	9.5%
Public Recreation		1.1	0.7%	0.4	0.4%	0.7	0.7%	0.1	0.3%	2.2	0.4%	0.2	0.3%
Residential		17.0	11.4%	1.5	1.6%	57.0	51.9%	8.3	25.1%	319.9	56.9%	10.0	10.7%
Residential Marina		3.9	2.6%	0.5	0.5%	2.2	2.0%	0.3	1.1%	22.0	3.9%	0.9	1.0%
Grand Total		**148.9**	**100.0%**	**95.8**	**100.0%**	**109.6**	**100.0%**	**33.2**	**100.0%**	**562.3**	**100.0%**	**94.3**	**100.0%**

Shoreline Classification	Symbol	Lake Wylie		Fishing Creek Lake		Great Falls		Cedar Creek Reservoir		Lake Wateree		Project Total	
		Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent
Bottomland Hardwood		0.2	0.1%	6.1	6.7%	0.2	1.9%		0.0%	1.3	0.7%	9.9	1.1%
Business Industrial		3.2	0.9%	0.3	0.3%	0.1	0.8%	0.0	0.1%	0.0	0.0%	9.5	0.4%
Commercial Marina		7.0	2.0%	0.4	0.4%		0.0%		0.0%	1.7	0.9%	19.4	0.7%
Environmental		77.3	22.7%	35.8	39.6%	3.4	25.5%	3.8	17.1%	42.4	22.4%	323.1	23.2%
Future Commercial Marina		3.6	1.1%	15.9	17.6%		0.0%	3.3	14.6%	15.3	8.1%	70.2	6.3%
Future Public Recreation		9.8	2.9%	3.3	3.6%	2.5	18.6%	7.7	34.4%	8.7	4.6%	109.3	10.4%
Future Residential		31.2	9.2%	15.1	16.7%		0.0%	2.6	11.6%	11.8	6.2%	203.0	11.8%
Future Residential Marina		8.0	2.4%	1.2	1.3%		0.0%		0.0%	4.9	2.6%	31.5	1.5%
Impact Minimization Zones		9.0	2.6%	0.5	0.5%		0.0%	0.8	3.4%	7.7	4.1%	46.3	3.2%
IMZ Developed		1.2	0.3%	0.1	0.1%	0.3	2.2%	0.0	0.0%	0.5	0.2%	8.1	0.5%
Natural Areas		23.5	6.9%	3.0	3.3%	0.2	1.4%	1.6	7.3%	5.0	2.6%	83.4	6.4%
Natural Isolated Berm		0.5	0.2%	2.8	3.2%		0.0%		0.0%	1.5	0.8%	11.7	0.9%
Project Operations		1.3	0.4%	0.7	0.8%	6.5	49.2%	1.1	5.1%	1.2	0.7%	23.1	6.1%
Public Infrastructure		10.1	3.6%	1.3	1.4%	0.2	1.8%	1.0	4.6%	1.8	0.9%	66.0	3.2%
Public Recreation		3.2	0.9%	0.31	0.1%		0.0%	0.1	0.4%	0.5	0.3%	8.6	0.4%
Residential		138.3	40.6%	3.8	4.2%		0.0%	0.1	0.6%	84.4	44.6%	640.5	22.5%
Residential Marina		4.2	1.2%	0.0	0.0%		0.0%		0.0%	0.7	0.4%	36.7	1.3%
Grand Total		**340.6**	**100.0%**	**90.8**	**100.0%**	**13.4**	**100.0%**	**22.1**	**100.0%**	**189.4**	**100.0%**	**1700.3**	**100.0%**

consistently over the entire shoreline of the Project reservoirs. These Classification Examples were also used during the modification/review process for the SMP Maps in Appendix A.

Number: 1 Author: Chris Goudreau Subject: Comment on Text Date: 6/24/2016 11:18:41 AM
What about others, including agencies?

Number: 2 Author: Chris Goudreau Subject: Comment on Text Date: 6/24/2016 11:20:42 AM
and federal?

5.0 Structure Renovation/Removal Program

Duke Energy developed its Process for Structure Renovation and Removal on Reservoirs managed by Duke Energy (i.e., Structure Renovation/Removal Program) in 1996 to ensure permitted structures are maintained in good repair and do not pose a hazard to public safety and navigation. The objectives of the program are to: (1) maintain and improve lake user safety by eliminating potential hazards from human-made structures; (2) manage Duke Energy costs for floating debris removal by ensuring structure owners take full responsibility for structure maintenance; and (3) ensure FERC license requirements are met.

The determination of the need for repair or removal is a judgment on the part of the DE-LS representative(s) responsible for permitting at the lake. As a general rule, if the DE-LS representative is unwilling or unable to walk on, within, or under a structure because of concerns for his or her safety and the safety of others, repair or removal will be required. The full program details are provided in Appendix E.

6.0 Procedure for Challenging SMP Mapping Accuracy

If a property owner/developer contacts DE-LS with a question regarding the mapping accuracy of a particular area of shoreline, DE-LS will review the appropriate (i.e., latest version developed and/or filed with FERC) SMP Maps and if necessary make a site field inspection. If the property owner/developer disagrees with the shoreline classification indicated on the map for a particular site, DE-LS makes a second site visit, if necessary, to determine if there is a mapping discrepancy. If DE-LS believes there is no mapping discrepancy, the classification stands. If DE-LS believes there is a potential mapping discrepancy, DE-LS will coordinate with the appropriate state agency(s) contact to visit the site. If the state agency(s) does not agree that a mapping discrepancy exists, the mapping classification stands. If the state agency(s) confirms there is a mapping discrepancy, the property owner/developer will have the opportunity to file for a shoreline classification change with the Commission. *Note: Any reclassification of more than 100 feet of shoreline must be filed for FERC approval. The application must include*

documentation of agency consultation, justification for the reclassification, and a copy of the map from the existing SMP Maps showing the location of the proposed reclassification.

7.0 Public Outreach and Education

Duke Energy provides information about shoreline management topics on its website. The website provides dynamic mapping of SMP information allowing users to spatially identify shoreline information and find locations by entering valid street addresses as well as downloading related documents. This website uses a map interface to provide aerial images and maps as well as address location services; this information is coupled with select portions of Duke Energy's GIS data to provide the public with access to comprehensive SMP data while delivering the information via a user-friendly interface. In addition, the website provides information on the procedures for issuance of a permit and approval, including a description of the application process and actual application forms for several of the lake use permitting programs.

8.0 SMP Review and Update Process

Duke Energy agreed, as part of the Comprehensive Relicensing Agreement, to annually convene an SMP Workgroup of interested stakeholders to discuss implementation of the SMP including the shoreline classifications (SMP Maps) and the SMGs. These meetings would establish methodology and parameters for the SMG effectiveness evaluation; allow for discussion of opportunities and recommendations for periodic modifications to the SMP maps and SMGs; and be conducted in preparation for any needed ten year updates of the SMP.

As required by Article 409, Duke Energy will review the SMP every 10 years in consultation with U.S. Fish and Wildlife Service, the North Carolina Department of Environment and Natural Resources, the North Carolina Wildlife Resources Commission, the South Carolina Department of Parks, Recreation, and Tourism, the South Carolina Department of Natural Resources, as well as other interested stakeholders to determine whether the SMP needs revision. Based on the results of this consultation, Duke Energy will file a report to the Commission in 2025 to include an evaluation of the adequacy of the SMP, and to describe whether or not revisions to the SMP, SMP Maps, or the SMGs are needed. If changes are needed, an updated SMP will be filed with

Number: 1 Author: Chris Goudreau Subject: Comment on Text Date: 6/24/2016 11:20:48 AM
now NCDEQ

Garrison, Brett A

From: Dick Christie <ChristieD@dnr.sc.gov>
Sent: Friday, July 15, 2016 11:44 AM
To: Garrison, Brett A; 'chris.goudreau@ncwildlife.org'; 'vetaylor@roadrunner.com'; 'swillis@lancastercountysc.net'; 'mdudley@scprt.com'; 'dchamblee@lincolncounty.org'; 'sam@catawbariverkeeper.org'; 'David.Caldwell@mecklenburgcountync.gov'; 'mlancaster@lnmc.org'; 'donna.lancasterdocks@gmail.com'; 'Pat.morrison@yorkcountygov.com'; 'jim_burke@ncsu.edu'; 'Lisa.Hagood@yorkcountygov.com'; 'ajames@scprt.com'; Robert Stroud; 'wallison@co.iredell.nc.us'; 'fred.tarver@ncdenr.gov'; 'scott.carpenter@burkenc.org'; 'Thomas_McCoy@fws.gov'; 'Ron.Pompey@yorkcountygov.com'; 'jmaxwell@maxwellholdings.org'; 'Rusty.Rozzelle@mecklenburgcountync.gov'; Bill Marshall; Abney, Michael A; 'tim@ncwf.org'; 'mmarley42@truvista.net'; 'shannon.deaton@ncwildlife.org'; 'joestowe@lakewyliemarinecommission.com'; 'lakejames@charter.net'; 'sharris@alexandercountync.gov'; 'kcarter@caldwellcountync.org'; 'jeubanks@catawbacountync.gov'; 'sstuart@chestercounty.org'; 'milton.pope@fairfield.sc.gov'; 'carolyn.hammond@kershaw.sc.gov'; 'awooten@mcdowellgov.com'; 'david.larson@yorkcountygov.com'; 'accusweep@aol.com'; 'chuck@stogner.net'; 'vic.carpenter@kershaw.sc.gov'; 'bryan_tompkins@fws.gov'
Cc: Bill Marshall
Subject: RE: CW SMP Workgroup meeting follow-up
Attachments: SMP Effectiveness AssessmentSCDNRcomments.docx

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Brett - attached are SCDNR comments regarding the draft effectiveness study. Most of them address the flow of the document rather than content. The draft SMP appears to be well organized and well written, and identifies potential shoreline activities and an implementation process. We concur with the comments provided by NCWRC, and offer no additional comments. Thanks for allowing us to review these documents.

Garrison, Brett A

From: Thomas McCoy <Thomas_McCoy@fws.gov>
Sent: Friday, June 24, 2016 8:11 AM
To: Garrison, Brett A
Subject: RE: CW SMP Workgroup meeting follow-up

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello.
??
Some initial comments on the Catawba-Wateree Shoreline Management Plan (SMP) are below:

1. Section 1.1.10: There needs to be a location description like the other water development for Rocky Creek ??? Cedar Creek.
   Section 8.1: Duke Energy reserves the right to make minor alterations to the SMP without public notice, resource agency, or FERC review to ensure flexibility in the continuous monitoring and regulation of lake use permitting activities.?? I do not agree with this sentence.?? What is considered minor alterations??? If defined, I would be comfortable without consultation, but it would be nice to provide an update from Duke to the agencies.
   Appendix C: There was a statement about this SMP allows more boat slips than before.?? I do not agree that this should be included, because we cannot continue adding more and more boat slips to a recreational lake without it impacting aquatic species and the use of the lake.
   Appendix C: Any activities within the shoreline area (boat slip additions, boat ramps, clearing, etc.) should be reviewed by the Service and State natural resource agencies (this might be in the SMP, but missed by me) for impacts to trust resources.?? We should discourage work activities during fish spawning season (January-May for diadromous fishes) and impacts to mussels, which are sensitive to sedimentation.?? In addition, the contractor must use appropriate BMP measures when conducting these activities.?? If they are doing shoreline activities, should they provide dollars to the mitigation fund??? Again, I might have missed this.

??
I apologize for not being at the meeting due to my detail in Atlanta.
Please let me know if I can provide any further assistance.
Tom
Tom McCoy
Detail Position: Acting Deputy Assistant Regional Director ??? Ecological Services (June 12-July 2)
Department of the Interior -??U.S. Fish and Wildlife Service Southeast Regional Office
1875 Century Blvd.
Atlanta, Georgia 30345
PHONE: 404.679.7082
??
Permanent Position:
Field Supervisor/FERC Coordinator
Department of the Interior -??U.S. Fish and Wildlife Service
South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

1

Exhibit B

Waterfront Property Addresses, Jones_000237-308

ADDRESS
1976 EAGLES NEST RD, CAMDEN SC
1970 EAGLES NEST RD, CAMDEN SC
1966 EAGLES NEST RD, CAMDEN SC
1962 EAGLES NEST RD, CAMDEN SC
1958 EAGLES NEST RD, CAMDEN SC
1805 John G Richards Rd, Camden SC
1531 wild turkey rd, camden sc
1535A WILD TURKEY RD, CAMDEN SC
1535 WILD TURKEY RD, CAMDEN sc
1537 WILD TURKEY RD, CAMDEN SC
1539 WILD TURKEY RD, CAMDEN SC
1543 WILD TURKEY RD, CAMDEN SC
1545 WILD TURKEY RD, CAMDENS C
1549 WILD TURKEY RD, CAMDEN SC
1553 WILD TURKEY RD, CAMDEN SC
1559 WILD TURKEY RD, CAMDEN SC
1565 WILD TURKEY RD, CAMDEN SC
1573 WILD TURKEY RD, CAMDEN SC
1589 WILD TURKEY RD, CAMDEN SC
1771 WILD TURKEY RD, CAMDEN SC
1773 Wild Turkey Rd, CAMDEN SC
1777 WILD TURKEY RD, CAMDEN SC
1781 wild turkey RD, CAMDEN SC
1783 WILD TURKEY RD, CAMDEN SC
1791 WILD TURKEY RD, CAMDEN SC
1795 WILD TURKEY RD, CAMDEN SC
1586 CHICORA TRL, CAMDEN SC
1590 CHICORA TRL, CAMDEN SC
1596 CHICORA TRL, CAMDEN SC
1768 KANAWHA TRL, CAMDEN SC
1702 ATOKA TRL, CAMDEN SC
1782A KANAWHA TRL, CAMDEN SC
1782 KANAWHA TRL, CAMDEN SC
1785 KIOWA TRL, CAMDEN SC
1735 ATOKA TRL, CAMDEN SC
1749 ATOKA TRL, CAMDEN SC
1753 ATOKA TRL, CAMDEN SC
1761 ATOKA TRL, CAMDEN SC
1756 ATOKA TRL, CAMDEN SC
1742 ATOKA TRL, CAMDEN SC

1736 ATOKA TRL, CAMDEN SC
1807 KIOWA TRL, CAMDEN SC
1811 KIOWA TRL, CAMDEN SC
1812 KIOWA TRL, CAMDEN SC
1722A ATOKA TRL, CAMDEN SC
1718 ATOKA TRL, CAMDEN SC
1714 ATOKA TRL, CAMDEN SC
1708 ATOKA TRL, CAMDEN SC
1704 ATOKA TRL, CAMDEN SC
1780 ATOKA TRL, CAMDEN SC
1724 EAGLES NEST RD, CAMDEN SC
1716 EAGLES NEST RD, CAMDEN SC
2151 JOHN G RICHARDS RD, CAMDEN SC
2171A JOHN G RICHARDS RD, CAMDEN SC
2171 JOHN G RICHARDS RD, CAMDEN SC
2163 JOHN G RICHARDS RD, CAMDEN SC
2236 SAILING CLUB LN, CAMDEN SC
2183 JOHN G RICHARDS RD, CAMDEN SC
1174 WHIPPOORWILL RD, CAMDEN SC
1166 WHIPPOORWILL RD, CAMDEN SC
1162 WHIPPOORWILL RD, CAMDEN SC
1158 WHIPPOORWILL RD, CAMDEN SC
1156 WHIPPOORWILL RD, CAMDEN SC
1249 SCREECH OWL RD, CAMDEN SC
1253 SCREECH OWL RD, CAMDEN SC
1255 SCREECH OWL RD, CAMDEN SC
1257 SCREECH OWL RD, CAMDEN SC
1259 SCREECH OWL RD, CAMDEN SC
1177 BARN OWL RD, CAMDEN SC
1175 BARN OWL RD, CAMDEN SC
1181 SNOWY OWL RD, CAMDEN SC
1183 SNOWY OWL RD, CAMDEN SC
1179 SNOWY OWL RD, CAMDEN SC
1173 SNOWY OWL RD, CAMDEN SC
1167 SNOWY OWL RD, CAMDEN SC
1163 SNOWY OWL RD, CAMDEN SC
1165 SNOWY OWL RD, CAMDEN SC
1166 SNOWY OWL RD, CAMDEN SC
1168 SNOWY OWL RD, CAMDEN SC
1172 SNOWY OWL RD, CAMDEN SC
1182 SNOWY OWL RD, CAMDEN SC

1330 CEDAR COVE RD, CAMDEN SC
1336 CEDAR COVE RD, CAMDEN SC
1342 CEDAR COVE RD, CAMDEN SC
1350 CEDAR COVE RD, CAMDEN SC
1356 CEDAR COVE RD, CAMDEN SC
1358 CEDAR COVE RD, CAMDEN SC
1360 CEDAR COVE RD, CAMDEN SC
1326 CEDAR COVE RD, CAMDEN SC
1322 CEDAR COVE RD, CAMDEN SC
1310 CEDAR COVE RD, CAMDEN SC
9 HAWKWOOD DR, CAMDEN SC
10 HAWKWOOD DR, CAMDEN SC
41 NAVAHO TRL, CAMDEN SC
40A NAVAHO TRL, CAMDEN SC
40 NAVAHO TRL, CAMDEN SC
12A NAVAHO TRL, CAMDEN SC
1290 CEDAR COVE RD, CAMDEN SC
1290A CEDAR COVE RD, CAMDEN SC
1290B CEDAR COVE RD, CAMDEN SC
1290C CEDAR COVE RD, CAMDEN SC
1290D CEDAR COVE RD, CAMDEN SC
1253B MILLER RD, CAMDEN SC
1253A MILLER RD, CAMDEN SC
1253 MILLER RD, CAMDEN SC
1260 MILLER RD, CAMDEN SC
1262A MILLER RD, CAMDEN SC
1262 MILLER RD, CAMDEN SC
1264 MILLER RD, CAMDEN SC
1266 MILLER RD, CAMDEN SC
1270 MILLER RD, CAMDEN SC
1837 MARSH HAWK RD, CAMDEN SC
1841 MARSH HAWK RD, CAMDEN SC
1847 MARSH HAWK RD, CAMDEN SC
1853 MARSH HAWK RD, CAMDEN SC
34 ACORN LN, CAMDEN SC
30 ACORN LN, CAMDEN SC
1224 SCREECH OWL RD, CAMDEN SC
2323 JOHN G RICHARDS RD, CAMDEN SC
2335 JOHN G RICHARDS RD, CAMDEN SC
2129 FISHING LN, CAMDEN SC
2133 FISHING LN, CAMDEN SC

2135 FISHING LN, CAMDEN SC
2147 FISHING LN, CAMDEN SC
1231 WOOD DUCK RD, CAMDEN SC
1264 WOOD DUCK RD, CAMDEN SC
1262 WOOD DUCK RD, CAMDEN SC
1260 WOOD DUCK RD, CAMDEN SC
1258 WOOD DUCK RD, CAMDEN SC
1256 WOOD DUCK RD, CAMDEN SC
1254 WOOD DUCK RD, CAMDEN SC
20 LOCH HAVEN DR, CAMDEN SC
2062 LYSTRA RD, CAMDEN SC
1286 BLACK DUCK RD, CAMDEN SC
1270 BLACK DUCK RD, CAMDEN SC
1268 BLACK DUCK RD, CAMDEN SC
1266 BLACK DUCK RD, CAMDEN SC
1264 BLACK DUCK RD, CAMDEN SC
1265 BLACK DUCK RD, CAMDEN SC
1269 BLACK DUCK RD, CAMDEN SC
1271 BLACK DUCK RD, CAMDEN SC
1273 BLACK DUCK RD, CAMDEN SC
1275 BLACK DUCK RD, CAMDEN SC
1277 BLACK DUCK RD, CAMDEN SC
1285 BLACK DUCK RD, CAMDEN SC
1276 RUDDY DUCK RD, CAMDEN SC
1274 RUDDY DUCK RD, CAMDEN SC
1272 RUDDY DUCK RD, CAMDEN SC
1270 RUDDY DUCK RD, CAMDEN SC
1268 RUDDY DUCK RD, CAMDEN SC
1266 RUDDY DUCK RD, CAMDEN SC
1264 RUDDY DUCK RD, CAMDEN SC
1262 RUDDY DUCK RD, CAMDEN SC
1260 RUDDY DUCK RD, CAMDEN SC
1264 RUDDY DUCK RD, CAMDEN SC
1258 RUDDY DUCK RD, CAMDEN SC
1256 RUDDY DUCK RD, CAMDEN SC
1995 LYSTRA RD, CAMDEN SC
1989 LYSTRA RD, CAMDEN SC
1979 LYSTRA RD, CAMDEN SC
1969 LYSTRA RD, CAMDEN SC
1963 LYSTRA RD, CAMDEN SC
1964 LYSTRA RD, CAMDEN SC

1961 LYSTRA RD, CAMDEN SC
1959 LYSTRA RD, CAMDEN SC
1957 LYSTRA RD, CAMDEN SC
1958 LYSTRA RD, CAMDEN SC
1960 LYSTRA RD, CAMDEN SC
1962 LYSTRA RD, CAMDEN SC
1974 LYSTRA RD, CAMDEN SC
1984 LYSTRA RD, CAMDEN SC
1994 LYSTRA RD, CAMDEN SC
2002 LYSTRA RD, CAMDEN SC
2014 LYSTRA RD, CAMDEN SC
2024 LYSTRA RD, CAMDEN SC
2098 METHODIST CAMP RD, CAMDEN SC
2099 METHODIST CAMP RD, CAMDEN SC
2097 METHODIST CAMP RD, CAMDEN SC
2115 METHODIST CAMP RD, CAMDEN SC
2119 METHODIST CAMP RD, CAMDEN SC
2137 METHODIST CAMP RD, CAMDEN SC
2141 METHODIST CAMP RD, CAMDEN SC
2143 METHODIST CAMP RD, CAMDEN SC
2159 METHODIST CAMP RD, CAMDEN SC
2161 METHODIST CAMP RD, CAMDEN SC
2171 METHODIST CAMP RD, CAMDEN SC
2121 CRESCENT RD, CAMDEN SC
2113 CRESCENT RD, CAMDEN SC
2172 QUAIL RD, CAMDEN SC
2170 QUAIL RD, CAMDEN SC
2168 QUAIL RD, CAMDEN SC
2166 QUAIL RD, CAMDEN SC
2164 QUAIL RD, CAMDEN SC
2162 QUAIL RD, CAMDEN SC
2160 QUAIL RD, CAMDEN SC
2085 QUAIL RD, CAMDEN SC
2164 MOHAWK DR, CAMDEN SC
2154 MOHAWK DR, CAMDEN SC
1305 MOHAWK DR, CAMDEN SC
2156 MOHAWK DR, CAMDEN SC
2157 BLUE HERON LN, CAMDEN SC
2141 BLUE HERON LN, CAMDEN SC
2145 BLUE HERON LN, CAMDEN SC
2149 BLUE HERON LN, CAMDEN SC

2151 BLUE HERON LN, CAMDEN SC
2159 BLUE HERON LN, CAMDEN SC
2173 BLUE HERON LN, CAMDEN SC
2181 BLUE HERON LN, CAMDEN SC
2189 BLUE HERON LN, CAMDEN SC
2203 BLUE HERON LN, CAMDEN SC
2185 CLEARWATER LN, CAMDEN SC
2180 CLEARWATER LN, CAMDEN SC
2173 CLEARWATER LN, CAMDEN SC
2167 CLEARWATER LN, CAMDEN SC
2160 CLEARWATER LN, CAMDEN SC
2168 CLEARWATER LN, CAMDEN SC
2174 CLEARWATER LN, CAMDEN SC
2192 CLEARWATER LN, CAMDEN SC
2217 CLEARWATER LN, CAMDEN SC
2217A BLUE HERON LN, CAMDEN SC
2243 BLUE HERON LN, CAMDEN SC
2248 BLUE HERON LN, CAMDEN SC
2240 BLUE HERON LN, CAMDEN SC
2234 BLUE HERON LN, CAMDEN SC
2234 BLUE HERON LN, CAMDEN SC
2226 BLUE HERON LN, CAMDEN SC
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2029 BARON DEKALB RD, CAMDEN SC
2014 BARON DEKALB RD, CAMDEN SC
2030 BARON DEKALB RD, CAMDEN SC
2348 HARBOR VIEW RD, CAMDEN SC
2091 WHITE OAK RD, CAMDEN SC
2085 WHITE OAK RD, CAMDEN SC
2079 WHITE OAK RD, CAMDEN SC
2073 WHITE OAK RD, CAMDEN SC
2067 WHITE OAK RD, CAMDEN SC
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2047 WHITE OAK RD, CAMDEN SC
2043 WHITE OAK RD, CAMDEN SC
2039 WHITE OAK RD, CAMDEN SC
2033 WHITE OAK RD, CAMDEN SC
2027 WHITE OAK RD, CAMDEN SC
2019 WHITE OAK RD, CAMDEN SC
2013 WHITE OAK RD, CAMDEN SC

2007 WHITE OAK RD, CAMDEN SC
2003 WHITE OAK RD, CAMDEN SC
1997 WHITE OAK RD, CAMDEN SC
1995 WHITE OAK RD, CAMDEN SC
1993 WHITE OAK RD, CAMDEN SC
1989 WHITE OAK RD, CAMDEN SC
1981 WHITE OAK RD, CAMDEN SC
1971 WHITE OAK RD, CAMDEN SC
1961 WHITE OAK RD, CAMDEN SC
2207 WHITE OAK RD, CAMDEN SC
2215 WHITE OAK RD, CAMDEN SC
1525 Lakeshore Rd., CAMDEN SC
1613 LAKESHORE RD, CAMDEN SC
1617 LAKESHORE RD, CAMDEN SC
1621 LAKESHORE RD, CAMDEN SC
1627 LAKESHORE RD, CAMDEN SC
1633 LAKESHORE RD, CAMDEN SC
1649 LAKESHORE RD, CAMDEN SC
1667 LAKESHORE RD, CAMDEN SC
1672 LAKESHORE RD, CAMDEN SC
1677 LAKESHORE RD, CAMDEN SC
1681 LAKESHORE RD, CAMDEN SC
1687 LAKESHORE RD, CAMDEN SC
1691 LAKESHORE RD, CAMDEN SC
1697 LAKESHORE RD, CAMDEN SC
1703 LAKESHORE RD, CAMDEN SC
1709 LAKESHORE RD, CAMDEN SC
1717 LAKESHORE RD, CAMDEN SC
1725 LAKESHORE RD, CAMDEN SC
1727 LAKESHORE RD, CAMDEN SC
1735 LAKESHORE RD, CAMDEN SC
1737 LAKESHORE RD, CAMDEN SC
1739 LAKESHORE RD, CAMDEN SC
1741 LAKESHORE RD, CAMDEN SC
1743 LAKESHORE RD, CAMDEN SC
1747 LAKESHORE RD, CAMDEN SC
1753 LAKESHORE RD, CAMDEN SC
2186 LEISURE RD, CAMDEN SC
2180 LEISURE RD, CAMDEN SC
2174 LEISURE RD, CAMDEN SC
2168 LEISURE RD, CAMDEN SC

2162 LEISURE RD, CAMDEN SC
2160 LEISURE RD, CAMDEN SC
2161 LEISURE RD, CAMDEN SC
2173 LEISURE RD, CAMDEN SC
2187 DUCK COVE RD, CAMDEN SC
2185 DUCK COVE RD, CAMDEN SC
2183 DUCK COVE RD, CAMDEN SC
2179 DUCK COVE RD, CAMDEN SC
2167 DUCK COVE RD, CAMDEN SC
2164 DUCK COVE RD, CAMDEN SC
2168 DUCK COVE RD, CAMDEN SC
2170 DUCK COVE RD, CAMDEN SC
2174 DUCK COVE RD, CAMDEN SC
2178 DUCK COVE RD, CAMDEN SC
2184 DUCK COVE RD, CAMDEN SC
1769 LAKESHORE RD, CAMDEN SC
1781 LAKESHORE RD, CAMDEN SC
1787 LAKESHORE RD, CAMDEN SC
1793 LAKESHORE RD, CAMDEN SC
1799 LAKESHORE RD, CAMDEN SC
1805 LAKESHORE RD, CAMDEN SC
1813 LAKESHORE RD, CAMDEN SC
1823 LAKESHORE RD, CAMDEN SC
1833 LAKESHORE RD, CAMDEN SC
1839 LAKESHORE RD, CAMDEN SC
1843 LAKESHORE RD, CAMDEN SC
2196 MALLARD LN, CAMDEN SC
2194 MALLARD LN, CAMDEN SC
2188 MALLARD LN, CAMDEN SC
2184 MALLARD LN, CAMDEN SC
2178 MALLARD LN, CAMDEN SC
2170 MALLARD LN, CAMDEN SC
2171 MALLARD LN, CAMDEN SC
2166 MALLARD RD, CAMDEN SC
2160 MALLARD RD, CAMDEN SC
2154 MALLARD RD, CAMDEN SC
2148 MALLARD RD, CAMDEN SC
2149 MALLARD RD, CAMDEN SC
2153 MALLARD RD, CAMDEN SC
2167 MALLARD RD, CAMDEN SC
2173 MALLARD RD, CAMDEN SC

2181 MALLARD RD, CAMDEN SC
1849 LAKESHORE RD, CAMDEN SC
1853 LAKESHORE RD, CAMDEN SC
1859 LAKESHORE RD, CAMDEN SC
1865 LAKESHORE RD, CAMDEN SC
1869 LAKESHORE RD, CAMDEN SC
5 GIN HOUSE LN, CAMDEN SC
13 GIN HOUSE LN, CAMDEN SC
17 GIN HOUSE LN, CAMDEN SC
19 GIN HOUSE LN, CAMDEN SC
10 GIN HOUSE LN, CAMDEN SC
1877 LAKESHORE RD, CAMDEN SC
1891 LAKESHORE RD, CAMDEN SC
1897 LAKESHORE RD, CAMDEN SC
1903 LAKESHORE RD, CAMDEN SC
1909 LAKESHORE RD, CAMDEN SC
1915 LAKESHORE RD, CAMDEN SC
1919 LAKESHORE RD, CAMDEN SC
1927 LAKESHORE RD, CAMDEN SC
1935 LAKESHORE RD, CAMDEN SC
1941 LAKESHORE RD, CAMDEN SC
1961 LAKESHORE RD, CAMDEN SC
1967 LAKESHORE RD, CAMDEN SC
1975 LAKESHORE RD, CAMDEN SC
1979 LAKESHORE RD, CAMDEN SC
1981 LAKESHORE RD, CAMDEN SC
1987 LAKESHORE RD, CAMDEN SC
1997 LAKESHORE RD, CAMDEN SC
2005 LAKESHORE RD, CAMDEN SC
2013 LAKESHORE RD, CAMDEN SC
2017 LAKESHORE RD, CAMDEN SC
2025 LAKESHORE RD, CAMDEN SC
2033 LAKESHORE RD, CAMDEN SC
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2242 WHITE HERON RD, LIBERTY HILL SC 29074

2248 WHITE HERON RD, LIBERTY HILL SC 29074

2254 WHITE HERON RD, LIBERTY HILL SC 29074

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2266 WHITE HERON RD, LIBERTY HILL SC 29074

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2310 WHITE HERON LN, LIBERTY HILL SC 29074

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2132 SINGLETON CREEK RD, LIBERTY HILL SC 29074
2667 WILDLIFE RD, LIBERTY HILL SC 29074
2933 WILDLIFE RD, LIBERTY HILL SC 29074
3021 WILDLIFE RD, LIBERTY HILL SC 29074
LANCASTER COUNTY

1490 Buck Hill Landing Rd, Ridgeway SC 29130

1494 Buck Hill Landing Rd, Ridgway SC 29130

1500 Buck Hill Landing Rd, Ridgeway SC 29130

1504 Buck Hill Landing Rd, Ridgeway SC 29130

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1568 Ginkgo Trail, Ridgeway SC 29130
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2012 Cottonwood Dr, Ridgeway SC 29130
2017 Cottonwood Dr, Ridgeway SC 29130
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2007 Cottonwood Dr, Ridgeway SC 29130
2003 Cottonwood Dr, Ridgeway SC 29130
2868 Lake Rd, Ridgeway SC 29130
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135-04-00-044-000
136 Hidden Circle Ln, Ridgeway SC 29130
156 Hidden Circle Ln, Ridgeway SC 29130
166 Hidden Circle Ln, Ridgeway SC 29130
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2081 Rolling Hills Rd, Ridgeway SC 29130
2079 Rolling Hills Rd, Ridgeway SC 29130
2077 Rolling Hills Rd, Ridgeway SC 29130
2075 Rolling Hills Rd, Ridgeway SC 29130
2005 Rolling Hills Rd, Ridgeway SC 29130
1977 Rolling Hills Rd, Ridgeway SC 29130

1941/1939 Rolling Hills Rd, Ridgeway SC 29130

1845 Rolling Hills Rd, Ridgeway SC 29130
28 Hideaway Point, Ridgeway SC 29130
82 Hideaway Point, Ridgeway SC 29130
31 Hideaway Point, Ridgeway SC 29130
1821 Rolling Hills Rd, Ridgeway SC 29130
1785 Rolling Hills Rd, Ridgeway SC 29130
1709 Rolling Hills Rd, Ridgeway SC 29130
1697 Rolling Hills Rd, Ridgeway SC 29130
1683 Rolling Hills Rd, Ridgeway SC 29130
1645 Rolling Hills Rd, Ridgeway SC 29130
1611 Rolling Hills Rd, Ridgeway SC 29130
1499 Rolling Hills Rd, Ridgeway SC 29130
1399 Rolling Hills Rd, Ridgeway SC 29130
1363 Rolling Hills Rd, Ridgeway SC 29130
1343 Rolling Hills Rd, Ridgeway SC 29130
1309 Rolling Hills Rd, Ridgeway SC 29130
1305 Rolling Hills Rd, Ridgeway SC 29130
12 Longview Ln, Ridgeway SC 29130
38 Longview Ln, Ridgeway SC 29130
93 Longview Ln, Ridgeway SC 29130
47 Longview Ln, Ridgeway SC 29130
1261 Rolling Hills Rd, Ridgeway SC 29130
1223 Rolling Hills Rd, Ridgeway SC 29130
1199 Rolling Hills Rd, Ridgeway SC 29130
1157 Rolling Hills Rd, Ridgeway SC 29130
1037 Rolling Hills Rd, Ridgeway SC 29130
997 Rolling Hills Rd, Ridgeway SC 29130
957 Rolling Hills Rd, Ridgeway SC 29130
953 Rolling Hills Rd, Ridgeway SC 29130
889 Rolling Hills Rd, Ridgeway SC 29130
855 Rolling Hills Rd, Ridgeway SC 29130
843 Rolling Hills Rd, Ridgeway SC 29130
831 Rolling Hills Rd, Ridgeway SC 29130
813 Rolling Hills Rd, Ridgeway SC 29130
135-03-05-055-000
691 Rolling Hills Rd, Ridgeway SC 29130
661 Rolling Hills Rd, Ridgeway SC 29130
651 Rolling Hills Rd, Ridgeway SC 29130
615 Rolling Hills Rd, Ridgeway SC 29130

135-03-05-019-000
509 Rolling Hills Rd, Ridgeway SC 29130
154-00-00-068-000
431 Rolling Hills Rd, Ridgeway SC 29130
331 Rolling Hills Rd, Ridgeway SC 29130
273 Rolling Hills Rd, Ridgeway SC 29130
265 Rolling Hills Rd, Ridgeway SC 29130
251 Rolling Hills Rd, Ridgeway SC 29130
201 Rolling Hills Rd, Ridgeway SC 29130
36 Flat Rock Ln, Ridgeway SC 29130
50 Flat Rock Ln, Ridgeway SC 29130
58 Flat Rock Ln, Ridgeway SC 29130
49 Flat Rock Ln, Ridgeway SC 29130
145 Rolling Hills Rd, Ridgeway SC 29130
105 Rolling Hills Rd, Ridgeway SC 29130
63 Rolling Hills Rd, Ridgeway SC 29130
21 Rolling Hills Rd, Ridgeway SC 29130
12535 River Rd, Ridgeway SC 29130
135-03-05-064-000
135-03-03-001-000
84 Colonel's Creek Dr, Ridgeway SC 29130
106 Colonel's Creek Dr, Ridgeway SC 29130
132 Colonel's Creek Dr, Ridgeway SC 29130
160 Colonel's Creek Dr, Ridgeway SC 29130
206 Colonel's Creek Dr, Ridgeway SC 29130
242 Colonel's Creek Dr, Ridgeway SC 29130
284 Colonel's Creek Dr, Ridgeway SC 29130
135-03-03-008-000
302 Colonel's Creek Dr, Ridgeway SC 29130
328 Colonel's Creek Dr, Ridgeway SC 29130
348 Colonel's Creek Dr, Ridgeway SC 29130

1200 Antioch Cemetery Rd, Ridgeway SC 29130

518 Colonel's Cir, Ridgeway SC 29130
536 Colonel's Cir, Ridgeway SC 29130
134-04-01-017-000
602 Colonel's Cir, Ridgeway SC 29130
634 Colonel's Cir, Ridgeway SC 29130
652 Colonel's Cir, Ridgeway SC 29130
658 Colonel's Cir, Ridgeway SC 29130
657 Colonel's Cir, Ridgeway SC 29130

631 Colonel's Cir, Ridgeway SC 29130
611 Colonel's Cir, Ridgeway SC 29130
593 Colonel's Cir, Ridgeway SC 29130
589 Colonel's Cir, Ridgeway SC 29130
577 Colonel's Cir, Ridgeway SC 29130
135-03-02-011-000
549 Colonel's Cir, Ridgeway SC 29130
521 Colonel's Cir, Ridgeway SC 29130
405 Colonel's Cir, Ridgeway SC 29130
134-04-02-035-000
12166 River Rd, Ridgeway SC 29180
12224 River Rd, Ridgeway SC 29180
12246 River Rd, Ridgeway SC 29180
12266 River Rd, Ridgeway SC 29180
12278 River Rd, Ridgeway SC 29180
12300 River Rd, Ridgeway SC 29180
135-03-01-043-000
1849 Molly Creek Cir, Ridgeway SC 29130
135-03-01-041-000
135-03-01-040-000
135-03-01-068-000
74 Century Dr, Ridgeway SC 29130
71 Century Dr, Ridgeway SC 29130
41 Century Dr, Ridgeway SC 29130
29 Century Dr, Ridgeway SC 29130
1605 Molly Creek Cir, Ridgeway SC 29130
1549 Molly Creek Cir, Ridgeway SC 29130
1545 Molly Creek Cir, Ridgeway SC 29130
1513 Molly Creek Cir, Ridgeway SC 29130
1489 Molly Creek Dr, Ridgeway SC 29130
1449 Molly Creek Dr, Ridgeway SC 29130
1423 Molly Creek Dr, Ridgeway SC 29130
1401 Molly Creek Cir, Ridgeway SC 29130
1343 Molly Creek Cir, Ridgeway SC 29130
1313 Moly Creek Cir, Ridgeway SC 29130
1287 Molly Creek Cir, Ridgeway SC 29130
1249 Molly Creek Cir, Ridgeway SC 29130
1211 Molly Creek Cir, Ridgeway SC 29130
1201 Molly Creek Cir, Ridgeway SC 29130
1199 Molly Creek Cir, Ridgeway SC 29130
1197 Molly Creek Cir, Ridgeway SC 29130

1195 Molly Creek Cir, Ridgeway SC 29130
1171 Molly Creek Cir, Ridgeway SC 29130
1164 Molly Creek Cir, Ridgeway SC 29130
1149 Molly Creek Cir, Ridgeway SC 29130
1147 Molly Creek Cir, Ridgeway SC 29130
1119 Molly Creek Cir, Ridgeway SC 29130
1033 Molly Creek Cir, Ridgeway SC 29130
1019 Molly Creek Cir, Ridgeway SC 29130
54 Point Ln, Ridgeway SC 29130
82 Point Ln, Ridgeway SC 29130
122 Point Ln, Ridgeway SC 29130
79 Point Ln, Ridgeway SC 29130
53 Point Ln, Ridgeway SC 29130
983 Molly Creek Cir, Ridgeway SC 29130
923 Molly Creek Cir, Ridgeway SC 29130
42 Wandering Ln, Ridgeway SC 29130
135 Wandering Ln, Ridgeway SC 29130
135-01-00-021-000
135-01-00-020-000
109 Wandering Ln, Ridgeway SC 29130
85 Wandering Ln, Ridgeway SC 29130
63 Wandering Ln, Ridgeway SC 29130
41 Wandering Ln, Ridgeway SC 29130
805 Molly Creek Cir, Ridgeway SC 29130
781 Molly Creek Cir, Ridgeway SC 29130
761 Molly Creek Cir, Ridgeway SC 29130
725 Molly Creek Cir, Ridgeway SC 29130
659 Molly Creek Cir, Ridgeway SC 29130
591 Molly Creek Cir, Ridgeway SC 29130
573 Molly Creek Cir, Ridgeway SC 29130
511 Molly Creek Cir, Ridgeway SC 29130
491 Molly Creek Cir, Ridgeway SC 29130
469 Molly Creek Cir, Ridgeway SC 29130
437 Molly Creek Cir, Ridgeway SC 29130
413 Molly Creek Cir, Ridgeway SC 29130
349 Molly Creek Cir, Ridgeway SC 29130
345 Molly Creek Cir, Ridgeway SC 29130
315 Molly Creek Cir, Ridgeway SC 29130
135-01-00-007-000
265 Molly Creek Cir, Ridgeway SC 29130
135-01-00-005-000

229 Molly Creek Cir, Ridgeway SC 29130
203 Molly Creek Cir, Ridgeway SC 29130
135-01-00-095-000
129 Molly Creek Cir, Ridgeway SC 29130
109 Molly Creek Cir, Ridgeway SC 29130
134-02-00-055-000
134-02-00-039-000
134-02-00-040-000
11303 River Rd, Ridgeway SC 29130
134-02-00-042-000
134-02-00-043-000
11225 River Rd, Ridgeway SC 29130
11191 River Rd, Ridgeway SC 29130
11159 River Rd, Ridgeway SC 29130
134-02-00-047-000
134-02-00-048-000
134-02-00-036-000
710 Retreat Way, Ridgeway SC 29130
760 Retreat Way, Ridgeway SC 29130
135-01-00-097-000
135-01-00-091-000
986 Retreat Way, Ridgeway SC 29130
135-01-00-092-000
294 Big Water View, Ridgeway SC 29130
304 Big Water View, Ridgeway SC 29130
135-01-00-036-000
135-01-00-037-000
279 Big Water View, Ridgeway SC 29130
251 Big Water View, Ridgeway SC 29130
227 Big Water View, Ridgeway SC 29130
197 Big Water View, Ridgeway SC 29130
173 Big Water View, Ridgeway SC 29130
149 Big Water View, Ridgeway SC 29130
125 Big Water View, Ridgeway SC 29130
79 Big Water View, Ridgeway SC 29130
55 Big Water View, Ridgeway SC 29130
17 Big Water View, Ridgeway SC 29130
8 Big Water View, Ridgeway SC 29130
2 Big Water View, Ridgeway SC 29130
135-01-00-053-000
135-01-00-049-000

42 Big Water View, Ridgeway SC 29130
1279 Retreat Way, Ridgeway SC 29130
135-01-00-052-000
135-01-00-063-000
1199 Retreat Way, Ridgeway SC 29130
1177 Retreat Way, Ridgeway SC 29130
1099 Retreat Way, Ridgeway SC 29130
1075 Retreat Way, Ridgeway SC 29130
135-01-00-071-000
1015 Retreat Way, Ridgeway SC 29130
135-01-00-079-000
135-01-00-080-000
955 Retreat Way, Ridgeway SC 29130
937 Retreat Way, Ridgeway SC 29130
135-01-00-082-000
835 Retreat Way, Ridgeway SC 29130
785 Retreat Way, Ridgeway SC 29130
759 Retreat Way, Ridgeway SC 29130
731 Retreat Way, Ridgeway SC 29130
707 Retreat Way, Ridgeway SC 29130
691 Retreat Way, Ridgeway SC 29130
135-01-00-086-000
135-01-00-074-000
604 Island Rd, Ridgeway SC 29130
878 Island Rd, Ridgeway SC 29130
898 Island Rd, Ridgeway SC 29130
877 Island Rd, Ridgeway SC 29130
855 Island Rd, Ridgeway SC 29130
801 Island Rd, Ridgeway SC 29130
725 Island Rd, Ridgeway SC 29130
574 Goat Hill Rd, Ridgeway SC 29130
668 Goat Hill Rd, Ridgeway SC 29130
670 Goat Hill Rd, Ridgeway SC 29130
672 Goat Hill Rd, Ridgeway SC 29130
674 Goat Hill Rd, Ridgeway SC 29130
697 Goat Hill Rd, Ridgeway SC 29130
676 Goat Hill Rd, Ridgeway SC 29130
706 Goat Hill Rd, Ridgeway SC 29130
857 Goat Hill Rd, Ridgeway SC 29130
749 Goat Hill Rd, Ridgeway SC 29130
735 Goat Hill Rd, Ridgeway SC 29130

174 Tallow Rd, Ridgeway SC 29130
395 Tallow Rd, Ridgeway SC 29130
349 Tallow Rd, Ridgeway SC 29130
299 Tallow Rd, Ridgeway SC 29130
259 Tallow Rd, Ridgeway SC 29130
116-03-02-021-000
251 Tallow Rd, Ridgeway SC 29130
116-03-02-018-000
379 Rattlesnake Rd, Ridgeway SC 29130
433 Rattlesnake Rd, Ridgeway SC 29130
337 Rattlesnake Rd, Ridgeway SC 29130
116-03-01-016-000
74 Smooth Rock Point, Ridgeway SC 29130
116-03-01-013-000
247 Smooth Rock Point, Ridgeway SC 29130
219 Smooth Rock Point, Ridgeway SC 29130
197 Smooth Rock Point, Ridgeway SC 29130
115 Smooth Rock Point, Ridgeway SC 29130
117 Smooth Rock Point, Ridgeway SC 29130
116-01-00-018-000
113 Smooth Rock Point, Ridgeway SC 29130
116-03-01-021-000
3803 Rockbridge Rd, Ridgeway SC 29130
3801 Rockbridge Rd, Ridgeway SC 29130
3767 Rockbridge Rd, Ridgeway SC 29130
3713 Rockbridge Rd, Ridgeway SC 29130
3675 Rockbridge Rd, Ridgeway SC 29130
3637 Rockbridge Rd, Ridgeway SC 29130
3613 Rockbridge Rd, Ridgeway SC 29130
3585 Rockbridge Rd, Ridgeway SC 29130
3557 Rockbridge Rd, Ridgeway SC 29130
3471 Rockbridge Rd, Ridgeway SC 29130
3413 Rockbridge Rd, Ridgeway SC 29130
3337 Rockbridge Rd, Ridgeway SC 29130
3329 Rockbridge Rd, Ridgeway SC 29130
3293 Rockbridge Rd, Ridgeway SC 29130
3245 Rockbridge Rd, Ridgeway SC 29130
3213 Rockbridge Rd, Ridgeway SC 29130
3201 Rockbridge Rd, Ridgeway SC 29130
3183 Rockbridge Rd, Ridgeway SC 29130
115-02-02-055-000

3121 Rockbridge Rd, Ridgeway SC 29130
3105 Rockbridge Rd, Ridgeway SC 29130
3073 Rockbridge Rd, Ridgeway SC 29130
115-02-02-051-000
55 Suede Ln, Ridgeway SC 29130
37 Suede Ln, Ridgeway SC 29130
27 Suede Ln, Ridgeway SC 29130
2983 Rockbridge Rd, Ridgeway SC 29130
2953 Rockbridge Rd, Ridgeway SC 29130
115-02-02-043-000
2761 Rockbridge Rd, Ridgeway SC 29130
2691 Rockbridge Rd, Ridgeway SC 29130
2653 Rockbridge Rd, Ridgeway SC 29130
2623 Rockbridge Rd, Ridgeway SC 29130
2617 Rockbridge Rd, Ridgeway SC 29130
2605 Rockbridge Rd, Ridgeway SC 29130
2583 Rockbridge Rd, Ridgeway SC 29130
2575 Rockbridge Rd, Ridgeway SC 29130
2533 Rockbridge Rd, Ridgeway SC 29130
2493 Rockbridge Rd, Ridgeway SC 29130
2485 Rockbridge Rd, Ridgeway SC 29130
2459 Rockbridge Rd, Ridgeway SC 29130
2435 Rockbridge Rd, Ridgeway SC 29130
2433 Rockbridge Rd, Ridgeway SC 29130
2427 Rockbridge Rd, Ridgeway SC 29130
2395 Rockbridge Rd, Ridgeway SC 29130
2335 Rockbridge Rd, Ridgeway SC 29130
115-02-02-025-000
2187 Rockbridge Rd, Ridgeway SC 29130
2167 Rockbridge Rd, Ridgeway SC 29130
2153 Rockbridge Rd, Ridgeway SC 29130
2145 Rockbridge Rd, Ridgeway SC 29130
2143 Rockbridge Rd, Ridgeway SC 29130
2125 Rockbridge Rd, Ridgeway SC 29130
2091 Rockbridge Rd, Ridgeway SC 29130
2063 Rockbridge Rd, Ridgeway SC 29130
2035 Rockbridge Rd, Ridgeway SC 29130
2005 Rockbridge Rd, Ridgeway SC 29130
1995 Rockbridge Rd, Ridgeway SC 29130
1927 Rockbridge Rd, Ridgeway SC 29130
60 Little Point Ln, Ridgeway SC 29130

150 Little Point Ln, Ridgeway SC 29130
152 Little Point Ln, Ridgeway SC 29130
154 Little Point Ln, Ridgeway SC 29130
200 Little Point Ln, Ridgeway SC 29130
204 Little Point Ln, Ridgeway SC 29130
1895 Rockbridge Rd, Ridgeway SC 29130
1883 Rockbridge Rd, Ridgeway SC 29130
1851 Rockbridge Rd, Ridgeway SC 29130
1837 Rockbridge Rd, Ridgeway SC 29130
1795 Rockbridge Rd, Ridgeway SC 29130
1785 Rockbridge Rd, Ridgeway SC 29130
1755 Rockbridge Rd, Ridgeway SC 29130
1733 Rockbridge Rd, Rigeway SC 29130
1721 Rockbridge Rd, Ridgeway SC 29130
1689 Rockbridge Rd, Ridgeway SC 29130
1681 Rockbridge Rd, Ridgeway SC 29130
1637 Rockbridge Rd, Ridgeway SC 29130
1627 Rockbridge Rd, Ridgeway SC 29130
1569 Rockbridge Rd, Ridgeway SC 29130
1563 Rockbridge Rd, Ridgeway SC 29130
1533 Rockbridge Rd, Ridgeway SC 29130
1513 Rockbridge Rd, Ridgeway SC 29130
1469 Rockbridge Rd, Ridgeway SC 29130
115-04-00-043-000
1361 Rockbridge Rd, Ridgeway SC 29130
1359 Rockbridge Rd, Ridgeway SC 29130
1329 Rockbridge Rd, Ridgeway SC 29130
115-04-00-033-000
1197 Rockbridge Rd, Ridgeway SC 29130
1173 Rockbridge Rd, Ridgeway SC 29130
1135 Rockbridge Rd, Ridgeway SC 29130
1099 Rockbridge Rd, Ridgeway SC 29130
1085 Rockbridge Rd, Ridgeway SC 29130
1027 Rockbridge Rd, Ridgeway SC 29130
999 Rockbridge Rd, Ridgeway SC 29130
973 Rockbridge Rd, Ridgeway SC 29130
957 Rockbridge Rd, Ridgeway SC 29130
931 Rockbridge Rd, Ridgeway SC 29130
897 Rockbridge Rd, Ridgeway SC 29130
831 Rockbridge Rd, Ridgeway SC 29130
803 Rockbridge Rd, Ridgeway SC 29130

789 Rockbridge Rd, Ridgeway SC 29130
751 Rockbridge Rd, Ridgeway SC 29130
729 Rockbridge Rd, Ridgeway SC 29130
115-03-03-023-000
115-03-03-022-000
685 Rockbridge Rd, Ridgeway SC 29130
659 Rockbridge Rd, Ridgeway SC 29130
655 Rockbridge Rd, Ridgeway SC 29130
647 Rockbridge Rd, Ridgeway SC 29130
603 Rockbridge Rd, Ridgeway SC 29130
553 Rockbridge Rd, Ridgeway SC 29130
531 Rockbridge Rd, Ridgeway SC 29130
497 Rockbridge Rd, Ridgeway SC 29130
483 Rockbridge Rd, Ridgeway SC 29130
115-03-03-012-000
439 Rockbridge Rd, Ridgeway SC 29130
405 Rockbridge Rd, Ridgeway SC 29130
373 Rockbridge Rd, Ridgeway SC 29130
343 Rockbridge Rd, Ridgeway SC 29130
321 Rockbridge Rd, Ridgeway SC 29130
297 Rockbridge Rd, Ridgeway SC 29130
253 Rockbridge Rd, Ridgeway SC 29130
231 Rockbridge Rd, Ridgeway SC 29130
177 Rockbridge Rd, Ridgeway SC 29130
165 Rockbridge Rd, Ridgeway SC 29130
141 Rockbridge Rd, Ridgeway SC 29130
1021 Rocky Point Cir, Ridgeway SC 29130
997 Rocky Point Cir, Ridgeway SC 29130
957 Rocky Point Cir, Ridgeway SC 29130
931 Rocky Point Cir, Ridgeway SC 29130
899 Rocky Point Cir, Ridgeway SC 29130
877 Rocky Point Cir, Ridgeway SC 29130
829 Rocky Point Cir, Ridgeway SC 29130
807 Rocky Point Cir, Ridgeway SC 29130
763 Rocky Point Cir, Ridgeway SC 29130
729 Rocky Point Cir, Ridgeway SC 29130
717 Rocky Point Cir, Ridgeway SC 29130
679 Rocky Point Cir, Ridgeway SC 29130
659 Rocky Point Cir, Ridgeway SC 29130
34 Rainbow Cove Rd, Ridgeway SC 29130
70 Rainbow Cove Rd, Ridgeway SC 29130

51 Rainbow Cove Rd, Ridgeway SC 29130
633 Rocky Point Cir, Ridgeway SC 29130
613 Rocky Point Cir, Ridgeway SC 29130
599 Rocky Point Cir, Ridgeway SC 29130
553 Rocky Point Cir, Ridgeway SC 29130
531 Rocky Point Cir, Ridgeway SC 29130
493 Rocky Point Cir, Ridgeway SC 29130
465 Rocky Point Cir, Ridgeway SC 29130
447 Rocky Point Cir, Ridgeway SC 29130
415 Rocky Point Cir, Ridgeway SC 29130
401 Rocky Point Cir, Ridgeway SC 29130
361 Rocky Point Cir, Ridgeway SC 29130
333 Rocky Point Cir, Ridgeway SC 29130
253 Rocky Point Cir, Ridgeway SC 29130
227 Rocky Point Cir, Ridgeway SC 29130
213 Rocky Point Cir, Ridgeway SC 29130
185 Rocky Point Cir, Ridgeway SC 29130
159 Rocky Point Cir, Ridgeway SC 29130
125 Rocky Point Cir, Ridgeway SC 29130
115-03-02-001-000
10180 River Rd, Ridgeway SC 29130
133-00-00-002-000
2736 Old Brick Store Rd, Ridgeway SC 29130
115-03-01-050-000
1643 Kingfisher Dr, Ridgeway SC 29130
1595 Kingfisher Dr, Ridgeway SC 29130
1515 Kingfisher Dr, Ridgeway SC 29130
1507 Kingfisher Dr, Ridgeway SC 29130
1501 Kingfisher Dr, Ridgeway SC 29130
1487 Kingfisher Dr, Ridgeway SC 29130
1383 Kingfisher Dr, Ridgeway SC 29130
1373 Kingfisher Dr, Ridgeway SC 29130
1365 Kingfisher Dr, Ridgeway SC 29130
1339 Kingfisher Dr, Ridgeway SC 29130
1317 Kingfisher Dr, Ridgeway SC 29130
1297 Kingfisher Dr, Ridgeway SC 29130
1293 Kingfisher Dr, Ridgeway SC 29130
1267 Kingfisher Dr, Ridgeway SC 29130
1245 Kingfisher Dr, Ridgeway SC 29130
1123 Kingfisher Dr, Ridgeway SC 29130
1111 Kingfisher Dr, Ridgeway SC 29130

115-03-01-025-000
1071 Kingfisher Dr, Ridgeway SC 29130
1069 Kingfisher Dr, Ridgeway SC 29130
1059 Kingfisher Dr, Ridgeway SC 29130
1057 Kingfisher Dr, Ridgeway SC 29130
1031 Kingfisher Dr, Ridgeway SC 29130
48 Lazy Ln, Ridgeway SC 29130
62 Lazy Ln, Ridgeway SC 29130
115-03-01-053-000
131 Lazy Ln, Ridgeway SC 29130
95 Lazy Ln, Ridgeway SC 29130
93 Lazy Ln, Ridgeway SC 29130
67 Lazy Ln, Ridgeway SC 29130
887 Kingfisher Dr, Ridgeway SC 29130
867 Kingfisher Dr, Ridgeway SC 29130
841 Kingfisher Dr, Ridgeway SC 29130
837 Kingfisher Dr, Ridgeway SC 29130
821 Kingfisher Dr, Ridgeway SC 29130
795 Kingfisher Dr, Ridgeway SC 29130
781 Kingfisher Dr, Ridgeway SC 29130
755 Kingfisher Dr, Ridgeway SC 29130
697 Kingfisher Dr, Ridgeway SC 29130
681 Kingfisher Dr, Ridgeway SC 29130
639 Kingfisher Dr, Ridgeway SC 29130
22 Windward Ln, Ridgeway SC 29130
24 Windward Ln, Ridgeway SC 29130
54 Windward Ln, Ridgeway SC 29130
114-04-02-018-000
66 Windward Ln, Ridgeway SC 29130
533 Kingfisher Dr, Ridgeway SC 29130
481 Kingfisher Dr, Ridgeway SC 29130
479 Kingfisher Dr, Ridgeway SC 29130
477 Kingfisher Dr, Ridgeway SC 29130
455 Kingfisher Dr, Ridgeway SC 29130
453 Kingfisher Dr, Ridgeway SC 29130
411 Kingfisher Dr, Ridgeway SC 29130
335 Kingfisher Dr, Ridgeway SC 29130
321 Kingfisher Dr, Ridgeway SC 29130
275 Kingfisher Dr, Ridgeway SC 29130
251 Kingfisher Dr, Ridgeway SC 29130
114-04-02-004-000

185 Kingfisher Dr, Ridgeway SC 29130
183 Kingfisher Dr, Ridgeway SC 29130
114-04-02-001-000
114-04-01-016-000
1607 Westshore Dr, Ridgeway SC 29130
1561 Westshore Dr, Ridgeway SC 29130
1559 Westshore Dr, Ridgeway SC 29130
1505 Westshore Dr, Ridgeway SC 29130
1419 Westshore Dr, Ridgeway SC 29130
114-04-01-010-000
1387 Westshore Dr, Ridgeway SC 29130
1375 Westshore Dr, Ridgeway SC 29130
1263 Westshore Dr, Ridgeway SC 29130
1253 Westshore Dr, Ridgeway SC 29130
1237 Westshore Dr, Ridgeway SC 29130
1177 Westshore Dr, Ridgeway SC 29130
1171 Westshore Dr, Ridgeway SC 29130
1107 Westshore Dr, Ridgeway SC 29130
1099 Westshore Dr, Ridgeway SC 29130
1077 Westshore Dr, Ridgeway SC 29130
1043 Westshore Dr, Ridgeway SC 29130
1011 Westshore Dr, Ridgeway SC 29130
58 Hickory Nut Ln, Ridgeway SC 29130
57 Hickory Nut Ln, Ridgeway SC 29130
51 Hickory Nut Ln, Ridgeway SC 29130
114-02-04-030-000
955 Westshore Dr, Ridgeway SC 29130
919 Westshore Dr, Ridgeway SC 29130
893 Westshore Dr, Ridgweay SC 29130
851 Westshore Dr, Ridgeway SC 29130
845 Westshore Dr, Ridgeway SC 29130
114-02-04-024-000
777 Westshore Dr, Ridgeway SC 29130
747 Westshore Dr, Ridgeway SC 29130
715 Westshore Dr, Ridgeway SC 29130
114-02-04-020-000
657 Westshore Dr, Ridgeway SC 29130
639 Westshore Dr, Ridgeway SC 29130
627 Westshore Dr, Ridgeway SC 29130
559 Westshore Dr, Ridgeway SC 29130
547 Westshore Dr, Ridgeway SC 29130

499 Westshore Dr, Ridgeway SC 29130
477 Westshore Dr, Ridgeway SC 29130
441 Westshore Dr, Ridgeway SC 29130
427 Westshore Dr, Ridgeway SC 29130
387 Westshore Dr, Ridgeway SC 29130
363 Westshore Dr, Ridgeway SC 29130
114-02-04-041-000
331 Westshore Dr, Ridgeway SC 29130
239 Westshore Dr, Ridgeway SC 29130
225 Westshore Dr, Ridgeway SC 29130
114-02-04-003-000
169 Westshore Dr, Ridgeway SC 29130
143 Westshore Dr, Ridgeway SC 29130
57 Westshore Dr, Ridgeway SC 29130
114-03-00-005-000
113-00-00-010-000
114-01-02-001-000
3541 Deer Run Rd, Ridgeway SC 29130
3527 Deer Run Rd, Ridgeway SC 29130
3507 Deer Run Rd, Ridgeway SC 29130
114-02-01-016-000
3417 Deer Run Rd, Ridgeway SC 29130
3397 Deer Run Rd, Ridgeway SC 29130
3355 Deer Run Rd, Ridgeway SC 29130
3333 Deer Run Rd, Ridgeway SC 29130
3311 Deer Run Rd, Ridgeway SC 29130
3279 Deer Run Rd, Ridgeway SC 29130
3277 Deer Run Rd, Ridgeway SC 29130
3196 Deer Run Rd, Ridgeway SC 29130
3195 Deer Run Rd, Ridgeway SC 29130
3193 Deer Run Rd, Ridgeway SC 29130
3141 Deer Run Rd, Ridgeway SC 29130
18 Green Acres Rd, Ridgeway SC 29130
64 Green Acres Rd, Ridgeway SC 29130
78 Green Acres Rd, Ridgeway SC 29130
84 Green Acres Rd, Ridgeway SC 29130
85 Green Acres Rd, Ridgeway SC 29130
3063 Deer Run Rd, Ridgeway SC 29130
3023 Deer Run Rd, Ridgeway SC 29130
2977 Deer Run Rd, Ridgeway SC 29130
2945 Deer Run Rd, Ridgeway SC 29130

68 Windy Cove Ln, Ridgeway SC 29130
122 Windy Cove Ln, Ridgeway SC 29130
114-02-03-026-000
192 Windy Cove Ln, Ridgeway SC 29130
214 Windy Cove Ln, Ridgeway SC 29130
238 Windy Cove Ln, Ridgeway SC 29130
268 Windy Cove Ln, Ridgeway SC 29130
290 Windy Cove Ln, Ridgeway SC 29130
314 Windy Cove Ln, Ridgeway SC 29130
338 Windy Cove Ln, Ridgeway SC 29130
374 Windy Cove Ln, Ridgeway SC 29130
402 Windy Cove Ln, Ridgeway SC 29130
428 Windy Cove Ln, Ridgeway SC 29130
438 Windy Cove Ln, Ridgeway SC 29130
431 Windy Cove Ln, Ridgeway SC 29130
421 Windy Cove Ln, Ridgeway SC 29130
413 Windy Cove Ln, Ridgeway SC 29130
395 Windy Cove Ln, Ridgeway SC 29130
377 Windy Cove Ln, Ridgeway SC 29130
363 Windy Cove Ln, Ridgeway SC 29130
353 Windy Cove Ln, Ridgeway SC 29130
327 Windy Cove Ln, Ridgeway SC 29130
313 Windy Cove Ln, Ridgeway SC 29130
259 Windy Cove Ln, Ridgeway SC 29130
219 Windy Cove Ln, Ridgeway SC 29130
114-02-02-023-000
177 Windy Cove Ln, Ridgeway SC 29130
149 Windy Cove Ln, Ridgeway SC 29130
114-02-02-035-000
93 Windy Cove Ln, Ridgeway SC 29130
2753 Deer Run Rd, Ridgeway SC 29130
2735 Deer Run Rd, Ridgeway SC 29130
2707 Deer Run Rd, Ridgeway SC 29130
2697 Deer Run Rd, Ridgeway SC 29130
2685 Deer Run Rd, Ridgeway SC 29130
2669 Deer Run Rd, Ridgeway SC 29130
2629 Deer Run Rd, Ridgeway SC 29130
2615 Deer Run Rd, Ridgeway SC 29130
2569 Deer Run Rd, Ridgeway SC 29130
2563 Deer Run Rd, Ridgeway SC 29130
2529 Deer Run Rd, Ridgeway SC 29130

2497 Deer Run Rd, Ridgeway SC 29130
2425 Deer Run Rd, Ridgeway SC 29130
2415 Deer Run Rd, Ridgeway SC 29130
2403 Deer Run Rd, Ridgeway SC 29130
2339 Deer Run Rd, Ridgeway SC 29130
2305 Deer Run Rd, Ridgeway SC 29130
2237 Deer Run Rd, Ridgeway SC 29130
2225 Deer Run Rd, Ridgeway SC 29130
2207 Deer Run Rd, Ridgeway SC 29130
2191 Deer Run Rd, Ridgeway SC 29130
2169 Deer Run Rd, Ridgeway SC 29130
2149 Deer Run Rd, Ridgeway SC 29130
2145 Deer Run Rd, Ridgeway SC 29130
2069 Deer Run Rd, Ridgeway SC 29130
2065 Deer Run Rd, Ridgeway SC 29130
1999 Deer Run Rd, Ridgeway SC 29130
1931 Deer Run Rd, Ridgeway SC 29130
1919 Deer Run Rd, Ridgeway SC 29130
1909 Deer Run Rd, Ridgeway SC 29130
1891 Deer Run Rd, Ridgeway SC 29130
1873 Deer Run Rd, Ridgeway SC 29130
1827 Deer Run Rd, Ridgeway SC 29130
1801 Deer Run Rd, Ridgeway SC 29130
1797 Deer Run Rd, Ridgeway SC 29130
1795 Deer Run Rd, Ridgeway SC 29130
1745 Deer Run Rd, Ridgeway SC 29130
1731 Deer Run Rd, Ridgeway SC 29130
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1405 Deer Run Rd, Ridgeway SC 29130
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56 N. Dutchman Creek Rd, Ridgeway SC 29130

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86 S. Dutchman Creek Rd, Ridgeway SC 29130

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113-00-00-008-000
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113-01-01-001-000

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89 Blue Bird Lane, Winnsboro SC 29180
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895 Wateree Creek Valley, Winnsboro SC 29180

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060-04-01-013-000

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061-03-01-004-000
1213 Woodside Dr, Winnsboro SC 29180

Exhibit C

Property Card, Jones_000215

Parcel Information Report (2023/02/09 08:39)

128-04-41-040



General Information

Parcel Number 128-04-41-040	Building Type Residential	Grantor DEAL J M JR & CLYDE M JONES &
Owner Name JONES CLYDE M II	Finished Building Area 2107	Previous Deed Book-Page 3485-17
Owner Name2	Primary LandUse Code RG	Previous Sale Date 2016/02/17
Owner Name3	Total Land Value 215000	Previous Sale Price $0.00
Location Address 1778 SAILING CLUB RD CAMDEN, SC 29020	Total Yard Item Value 1500	Zoning
Mailing Address 410 HAMPTON STREET CAMDEN,SC 29020	Total Building Value 151300	Deed Book-Page 4233-13
Legal Description LAKE WATEREE LOT 40	Total Market Value 367800	Plat Book 1083
Year Built 2003		Plat Page 317
Total Acreage 0.00		District 281
Sale Date 2020/06/02		
Sale Price $46,000.00		
Sale Type Family Sale		

Exhibit D

A Brief Summary of Duke Power Company's WWII (1942-1943) Mosquito Control Files DUK_00000027-29

(filed under seal)

Exhibit E

Communications Plan for the Mosquito Control Program Building Dedication/75th Anniversary DUK_00002369-2373

(filed under seal)

Exhibit F

Duke Power Company Letter Dated May 18, 1943 DUK_00000157-158

(filed under seal)

Exhibit G

Duke Power Company Letter Dated July 31, 1969 DUK_00000172

(filed under seal)

Exhibit H

Basic Mosquito Control on Lakes
DUK_00000289-294

(filed under seal)

Exhibit I

Present Approaches to Mosquito Control on Duke Power Company Impoundments DUK_00000295-300

(filed under seal)

Exhibit J

Mosquito Control Facilities Spill Prevention Control and Countermeasure Modified SPCC Plan DUK_00002051-2052

(filed under seal)

Exhibit K

Duke Energy Carolinas Mosquito Control, Pesticide Discharge Management Plan DUK_00002329-2340

(filed under seal)

Exhibit L

South Carolina Department of Health and Environmental Control letter dated January 21, 1976 DUK_00000479-482

(filed under seal)

Exhibit M

Firm Resumes

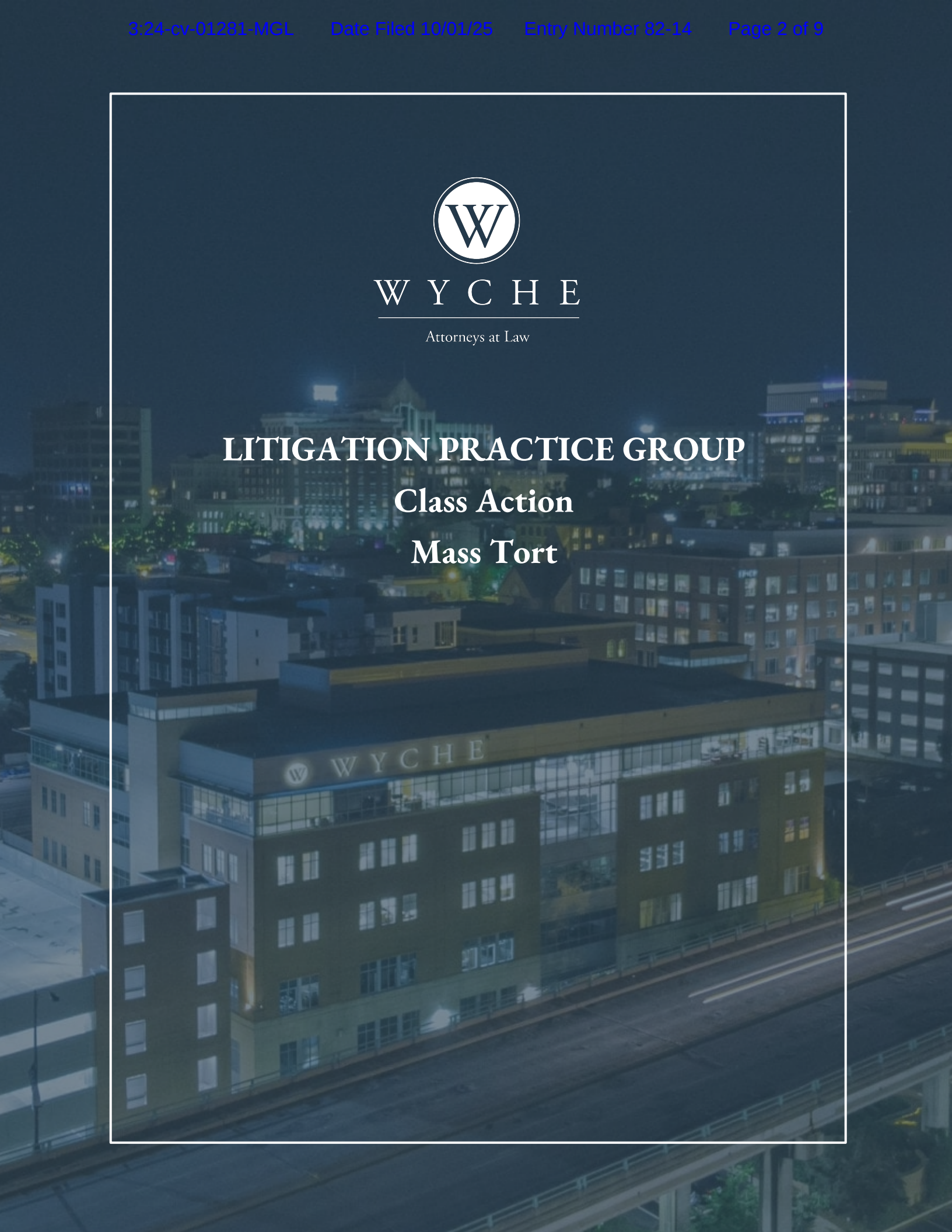
WYCHE

Attorneys at Law

LITIGATION PRACTICE GROUP

Class Action

Mass Tort



FIRM PROFILE

A TRUSTED LEGAL ADVISOR

Wyche brings sophisticated legal acumen earned through navigating complicated matters for over 100 years. We have an uncommonly deep bench for a law firm our size, making us a local firm with a national-caliber practice. Wyche attorneys regularly litigate in federal and state courts throughout South Carolina and across the country and handle appellate matters for clients who want new or additional representation on appeal by veteran, successful counsel.

Our litigators include members of the American Law Institute, former Presidents of the South Carolina and Greenville County Bars and the S.C. Chapter of the Federal Bar Association, fellows of the American College of Trial Lawyers, former United States Supreme Court law clerks, and permanent members of the U.S. Fourth Circuit Judicial Conference. Wyche serves as the state's exclusive member of **Lex Mundi**, the world's premier network of independent law firms.

100+
Years of Legal Leadership

#1
Litigation Practice Ranked Band One *(Chambers USA)*

Top Lawyer in South Carolina *(Super Lawyers)*

23,000
Access to 23,000 attorneys in more than 125+ countries as the SC member firm of Lex Mundi

THE WYCHE DIFFERENCE

CLIENT-CENTERED	EXPERIENCED	EFFICIENT
Wyche's unique culture and structure rewards teamwork, collaboration, and excellent client service to ensure the most qualified attorneys are paired with the client.	Wyche attorneys have participated in our region's most innovative transactions and have navigated a multitude of complex legal challenges. Our team consists of top-tier talented attorneys and legal professionals with strong academic credentials and experience typically only found in larger markets.	Wyche rejects the traditional law firm model built on maximizing the billable hour and working in silos, and instead, uses a lean staffing model to deliver responsive and efficient legal services designed to meet the specific needs of each client.

OUR LOCATIONS

Wyche's 45 attorneys are primarily based in Greenville, SC and Columbia, SC, with clients spanning across South Carolina and the United States.

Greenville
200 East Broad Street, Suite 400
Greenville, SC 29601

Columbia
807 Gervais Street, Suite 301
Columbia, SC 29201

REPRESENTATIVE MATTERS

- Pitts v. Jackson National Life Insurance: We defended this insurance practices class action in state court in South Carolina. After conditional certification of a class, we obtained summary judgment on the merits, which was upheld on appeal.
- Cook v. Liberty Life: We defended Liberty Life Insurance Company in this insurance contract interpretation class action. We obtained summary judgment on the merits.
- Sugarman v. Liberty Life: This was a telemarketing practices claim in Oregon. We worked with Oregon counsel. Liberty Life prevailed on class certification and on the merits.
- Stoddard v. Smart Corporation and Hiller v. Smart Corporation: We represented Smart Corporation in these two antitrust class actions—one in federal court, one in state court–alleging monopolistic practices in the copying of medical records. We obtained summary judgment on the merits in both cases.
- Spartanburg Regional Hospital System v. Hillenbrand: We worked actively as local counsel in defending this antitrust class action, which alleged antitrust violations arising out of alleged "bundled discounts." Lead counsel was Boies, Schiller & Flexner. The case settled.
- Pitten v. One Price: We obtained summary judgment for the defendant in this securities law action.
- In re Datastream Systems, Inc. Securities Litigation: We represented the defendant in this securities law class action, which was settled.
- Campbell v. Microsoft: We represented Microsoft in this class action filed in state court here and removed to federal court. The case was transferred to multidistrict panel. We worked with lead counsel Sullivan and Cromwell.
- In re Electrical Receptacle Products Liability Litigation: We represented the defendant in this no-injury products liability class action involving electrical receptacles. After a stint with an MDL panel in the District of South Carolina, the case was ultimately remanded to state court, where we argued successfully to the state trial court for its outright dismissal.
- Salley et al v. Compaq and Hewlett Packard: We represented the defendants in this products liability class action filed in state court in South Carolina. We worked with lead counsel Morgan Lewis & Bockius and Gibson Dunn & Crutcher. This case was settled.
- Cole & Kaufman v. Long John Silver: This was a Fair Labor Standards Act collective action that was in arbitration. We briefed and argued challenges in federal court to certain awards of the arbitrator.

SPEIGHTS & SOLOMONS, LLC – Attorneys at Law
Hampton, South Carolina
www.speightsandsolomons.com

Speights & Solomons, L.L.C. practices in the following areas of law:
Complex Litigation, Multi-District Litigation, Mass Torts, Personal Injury, Medical Malpractice, Pharmaceutical Liability, Products Liability, Consumer Protection, Toxic Torts, Premises Liability, Business Litigation

Daniel A. Speights has been practicing law for nearly 50 years. He is nationally known for his involvement in complex class actions and mass tort litigation including appearing as counsel for national classes of property owners in numerous bankruptcy courts.

Gibson Solomons has been serving as Plaintiffs' counsel in class actions for over twenty years. He has served as class counsel in in multiple states and multiple federal district courts. His experience includes being lead counsel national MDL class actions as well as lead counsel in in several localized state actions. Mr. Solomons is currently serving as class counsel in multiple actions. He has overseen class actions for a diverse array of clients including businesses, farmers, utility customers, homeowners, patients, and highway patrolmen.

Daniel A. Speights – Founding Partner

Daniel A. Speights has over 40 years of experience representing plaintiffs in complex civil litigation, with a national reputation in asbestos property damage litigation. Since 1982, he has tried and settled more asbestos property damage cases than any other attorney in the country. He has played pivotal roles in major asbestos-related bankruptcy cases, including Johns-Manville, Celotex, and National Gypsum, where his leadership helped secure multimillion-dollar settlements and favorable legal precedents.

A former U.S. Navy officer (1967–1970) and Clemson University alumnus (B.A., 1967), Dan earned his J.D. from the University of South Carolina School of Law in 1973. He began his legal career clerking for Judge W. L. Rhodes, Jr., later becoming a founding member of Speights & Runyan in 1987 before co-founding Speights & Solomons.

Key Areas of Practice:

- Asbestos Property Damage
- Products Liability
- Environmental Torts (Individual and Class Actions)

Professional Highlights:

- Lead counsel in landmark asbestos PD cases such as *Lexington County School District v. U.S. Gypsum* and *City of Greenville v. W.R. Grace*.
- Argued leading appellate decisions shaping asbestos litigation, including favorable rulings on statutes of limitations and repose.
- Frequent speaker at national conferences on asbestos litigation and abatement strategy.

Memberships:

- American Bar Association
- American Trial Lawyers Association
- South Carolina Bar
- South Carolina Trial Lawyers
- United States Supreme Court and the majority of United States Courts of Appeal

Education:

- Clemson University, Bachelor of Arts, 1967
  - Student Body President
  - Named Who's Who Among American Colleges and Universities
  - University of South Carolina Law School, Juris Doctorate, 1973

A.G. (Gibson) Solomons, III – Partner

Gibson Solomons brings substantial experience in both class action and complex individual litigation. His practice spans issues involving agricultural disputes, hazardous substances, defective products, and real property claims. Gibson has worked extensively on multidistrict litigation and represents clients across state and federal courts, including several U.S. Courts of Appeals.

A graduate of **Clemson University (B.A., 1995)** and the **University of South Carolina School of Law (J.D., 2000)**, Gibson also holds a Master's in Public Administration. He previously clerked for Judge Perry M. Buckner in South Carolina's Fourteenth Judicial Circuit.

Key Areas of Practice:

- Class Actions (Agriculture, Environmental, Consumer Protection, Product Defects)
- Complex Personal Injury
- Real Property and Development Disputes

Professional Associations:

- South Carolina Bar and Practice & Procedure Committee
- American Bar Association

- American Association for Justice
- United States Fourth Circuit Court of Appeals

Memberships:

- South Carolina Bar
- South Carolina Association for Justice
- American Association for Justice
- South Carolina Bar Practice Procedure Committee
- U.S. District Court for District of South Carolina
- American Bar Association
- United States Fourth Circuit Court of Appeals
- Hampton County Bar

Education:

- Clemson University, Bachelor of Arts, 1995
  - Member, Tiger Brotherhood
  - Clemson University / University of South Carolina Joint Graduate Program, Master of Public Administration, 1997
  - University of South Carolina School of Law, Juris Doctorate, 2000

Professional Activities and Experience:

- Admitted to the Bar in 2000, South Carolina
- Served as Law Clerk to the Honorable Perry M. Buckner, Chief Administrative Judge, Fourteenth Judicial Circuit

SAVAGE ROYALL & SHEHEEN L.L.P.
ATTORNEYS AND COUNSELORS AT LAW

ROBERT J. SHEHEEN - OF COUNSEL
MOULTRIE B. BURNS, JR. - OF COUNSEL
WILLIAM B. COX, JR.
VINCENT A. SHEHEEN*
STEPHEN R. SMOAK
MICHAEL D. WRIGHT
GREG B. COLLINS

AUSTIN M. SHEHEEN**

*CERTIFIED MEDIATOR & ARBITRATOR

**LICENSED IN SOUTH CAROLINA AND NORTH CAROLINA

HENRY SAVAGE, JR., 1903-1990
EDWARD M. ROYALL, 1930-2022

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Savage, Royall & Sheheen, LLP practices in the following areas of law:

Savage, Royall & Sheheen was established in 1926. The firm's members have extensive experience in many areas of law. Currently, there are nine attorneys practicing in all areas of the law, including Complex Civil litigation, Probate and Trusts, Estate law, Condemnation, Business and Contract law, Class Action law, family and criminal law. In the past ten years, the firm has recovered millions of dollars for its clients, including multimillion dollar verdicts and settlements.

The attorneys working on this case have over 30 years of combined legal experience. The attorneys have worked on complex product defect cases, class actions involving medical products and payday lending, business litigation, felony criminal trials, and many catastrophic injury cases.

The following attorneys will be providing work or may advise on the current litigation:

Vincent A. Sheheen – Partner

Vincent A. Sheheen has been practicing law for almost 30 years in a variety of legal areas and across the state of South Carolina. Vincent has handled complex business litigation, personal injury claims, employment disputes, workers compensation, class actions, and other matters. Vincent works hard to represent those who have suffered major injuries in accidents or at work; Vincent also represents businesses and individuals in complex injury and business litigation. Vincent has experience representing both Plaintiffs and Defendants and has helped clients obtain multi-million-dollar awards and settlements. Vincent graduated Magna Cum Laude from the University of South Carolina School of Law, clerked for U.S. District Judge Joseph F. Anderson, was elected to the House of Representatives in 2000 to fill Seat #52 and elected to the South Carolina Senate in 2004. He served as Prosecutor for the City of Camden and is an active Rotarian. Vincent has received numerous local and state awards and recognition for his public service. Vincent served as a South Carolina Senator, was the Democratic nominee for governor in 2010 and 2014, and currently serves as the Mayor of the City of Camden.

Austin Sheheen – Associate

Austin M. Sheheen has been practicing law for three years and graduated from the University of South Carolina School of Law, with Magna Cum Laude distinction, in May 2022 and served as a law clerk to the Honorable Judge Jocelyn Newman for the circuit court of South Carolina. Austin graduated from Clemson University with a Bachelor of Science in Anthropology

in 2017, is a licensed real estate agent, and was nominated to be a Member of the Order of the Coif, an honor society for United States Law School Students. Austin is licensed to practice in all South Carolina courts, is a member of the North Carolina Bar, as well as licensed in the federal court system in the United States District Court for the District of South Carolina and the United States District Court for the Eastern District of North Carolina. His current practice areas include Environmental litigation, class action law, personal injury litigation, construction litigation, probate litigation, and property litigation.

Michael D. Wright – Partner

Michael D. Wright joined Savage, Royall, & Sheheen, LLP in 2012 as an associate and became a partner in the firm in January 2015. Michael is a trial attorney who has represented clients in municipal, state, and federal courts at both the trial and appellate level. Michael represents both individuals and businesses in business disputes, class action litigation, employment matters, and collection proceedings. In addition to his litigation practice, Michael is also well-versed in the transactional world helping individuals in the formation of companies, providing guidance regarding corporate governance, and assists businesses, physicians, and other professional practices with asset and stock purchases, mergers, and acquisitions. Michael also served as the prosecutor for the City of Camden for a decade before becoming Chief Judge for the City of Camden Municipal Court in January 2022.

Michael is a 2005 valedictorian graduate of Presbyterian College and earned his Juris Doctor from the University of South Carolina School of Law in 2009. In addition, Michael earned a Master of Letters in Legal and Political Philosophy from the University of Stirling in Scotland while serving as a Rotary International Ambassadorial Scholar. After graduating from law school, Michael clerked for The Honorable Alexander S. Macaulay, 10th Judicial Circuit Court Judge, and The Honorable H. Bruce Williams, Judge of the South Carolina Court of Appeals.

Greg Collins – Partner

Greg B. Collins is a South Carolina native and graduate of the University of South Carolina. Before becoming a lawyer, Mr. Collins worked as a chemist in a textile plant. After admission to the South Carolina Bar in 2005, he worked for the Richland County Public Defender's Office. During his time there, he successfully defended clients charged with various crimes including, DUI, Drug Possession, Armed Robbery, Burglary, and all levels of Assault and Murder. Mr. Collins spent a large amount of time in the courtroom, gaining valuable trial experience. After leaving the Public Defender's Office, he worked in civil litigation for several years. Mr. Collins now focuses his practice on criminal defense, personal injury and other complex litigation matters – including construction litigation and negligent security litigation.