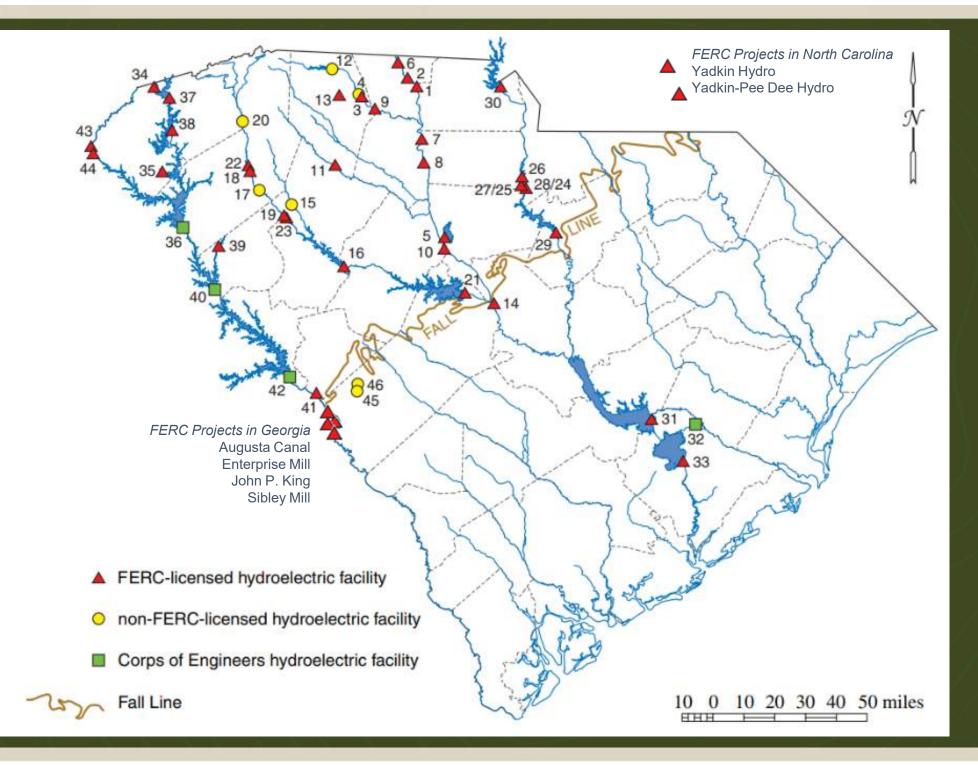
FERC Licensing of Hydroelectric Projects in the Saluda Basin





Elizabeth Miller – Office of Environmental Programs



<u>Active SC</u> <u>FERC licenses</u>

- 22 Projects
- 32 Facilities

SC rivers affected by active GA & NC FERC licenses

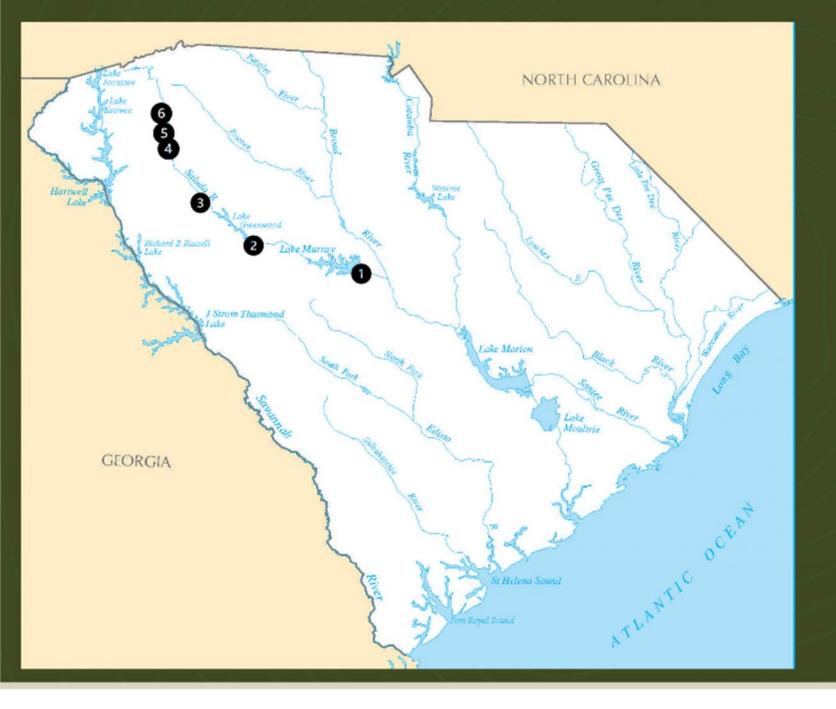
- Savannah River
- Great Pee Dee River

Non-FERC licensed dams in Saluda Basin

- Saluda Lake Dam
- Holliday Dam
- Boyd Mill Pond Dam

SCDNR Live Life Outdoors

Map of all FERC licensed projects in the Saluda River



Saluda Hydroelectric Project

Buzzards Roost Hydroelectric Project

Ware Shoals Hydroelectric Project

Lower Pelzer Hydroelectric Project

Upper Pelzer Hydroelectric Project

Piedmont Hydroelectric Project

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Hydropower Licensing

Federal laws

Federal Power Act (FPA)

Electric Consumers Protection Act

Fish and Wildlife Coordination Act

Magnuson-Stevens Fishery Conservation and Management Act Wild and Scenic Rivers Act National Environmental Policy Act





Federal Power Act





FPA Section 10(a)

- Project must serve public interest, not just power interests
- FERC must consider consistency of license with comprehensive plans
- State comprehensive plans apply
 - o S.C. Water Plan
 - State Wildlife Action Plan

FPA Section 10(j)

- License should adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources affected by the project
- States may recommend license conditions for PM&E of fish and wildlife resources







Opportunities for Public Input during FERC Licensing Process

Pre-filing

- Pre-Application Document
- Study Requests, Study Plans

Post-filing

- Draft License Application
- NEPA Scoping
- Ready for Environmental Analysis
- Environmental Assessment or EIS

Submit study request

Provide written comments

Provide oral comments at public scoping meetings and site visit

Provide written comments on license application Provide written comments on the FERC's environmental documents



<u>SCDNR Responsibilities</u> <u>under Titles 48 & 50</u>

- Wildlife & fisheries protection
- Game, nongame, & endangered species
- Marine resources
- WMA lands & Heritage Preserves
- Hunting & fishing licenses
- Watercraft equipment & operation
- Geological survey
- Soil & water conservation







SCDNR Responsibilities under Title 49

- Water resources planning & coordination (SC Water Plan)
- Drought response planning & coordination
- Aquatic plant management
- Flood mitigation
- State scenic rivers



<u>SCDNR Interests & Objectives in</u> <u>Hydro Project Licensing</u>

- Recognize the river and reservoir as important public trust resources
- Manage the project to achieve public benefits
- Maintain & enhance water quality to meet State standards
- Provide downstream flows consistent with the S.C. Water Plan
- Establish a Drought Plan or Low-inflow Protocol





SCDNR Live Life Outdoors

<u>SCDNR Interests & Objectives in</u> <u>Hydro Project Licensing</u>



- Protect & enhance fish and wildlife populations and habitats
- Protect & enhance public opportunity for outdoor recreation
- Prevent impairment of water uses by invasive, exotic aquatic plants
- Improve recreational safety at the project
 - Protect cultural & historic resources





Piedmont Hydroelectric Project

- Constructed in 1876
- Pelzer Hydro Company, LLC and
 Consolidated Hydro Southeast, LLC
 co-license the project
- 2020 2060 current license term
- 1 MW
- Run of river operation
- Minimum flow requirement of 15 cfs

SCDN

Upper Pelzer Hydroelectric Project

- Constructed in 1881
- Pelzer Hydro Company, LLC and
 Consolidated Hydro Southeast, LLC
 co-license the project
- 2020 2060 current license term
- 1.95 MW
- Run of river operation
- Minimum flow requirement of 15 cfs





Lower Pelzer Hydroelectric Project

- Constructed in 1893
- Pelzer Hydro Company, LLC and Consolidated Hydro Southeast, LLC co-license the project
- 2020 2060 current license term
- 3.3 MW
- Run of river operation
- Minimum flow requirement is 140 cfs

SCDNR

Ware Shoals Hydroelectric Project

- Constructed in 1906
- Aquenergy Systems, LLC
- 2002 2032 current license term
- 6.2 MW
- Modified run of river operation
- Seasonal downstream flows:
 - 200 cfs (December-February)
 - 800 cfs (March-May)
 - 250 cfs (June-November)





Buzzards Roost Hydroelectric Project

- Constructed in 1941
- Greenwood County
- 1995 20235 license term
- 15 MW
- Peaking operations
- Seasonal flows
 - Weekdays (Jun 15 Oct 15)
 - 400 cfs when inflow is >566 cfs
 - 300 cfs when inflow is between 566 and 466 cfs
 - 205 cfs when inflow is between 466 and 366 cfs
 - 225 cfs or inflow, whichever is less when inflow is < 366 cfs

- Weekdays (Oct 16 Jun 14), weekends and holidays
 - 400 cfs when inflow is >566 cfs
 - 300 cfs when inflow is between 566 and 466 cfs
 - 205 cfs when inflow is between 466 and 366 cfs
 - 225 cfs or inflow, whichever is less when inflow is < 366 cfs
- If no flows exceeding 833 cfs are released for at least six consecutive hours in any 72-hour period (February through May), a flow of at least 833 cfs will be released for six consecutive hours.

SCDN



Saluda Hydroelectric Project



- Constructed in 1930
- Dominion Energy South Carolina
- Currently relicensing the project

- 207.3 MW
- Peaking operations
- No current flow requirements
 - Informal agreement with SCDHEC to provide 180 cfs



Settlement Agreement

Enhanced in fish and wildlife habitat protection

- Trout

- Striped bass (STB)

Waterfowl

- Freshwater mussels
- Diadromous fish

Establishment of minimum flows

 Jan 1 – Mar 31
 700 cfs

 Apr 1 – May 10
 STB spawning enhancement flows

 May 11 – May 31
 1,000 cfs

 Jun 1 – Dec 31
 700 cfs

Low Inflow Protocol

Goal is to reserve electric generation, municipal water supply, and preserve the recreational, environmental, and economic values of Lake Murray.

Reservoir Drawdown Program

Periodic lake drawdowns for water quality maintenance, sediment transport, and aquatic vegetation management.

Dissolved Oxygen Enhancement to improve water quality

Upgrading Unit runners

Increased protection of rare, threatened and endangered species

- Bald eagle
- Rocky shoal spider lily
- Wood stork





Empowering South Carolinians to Live Life Outdoors

Questions?

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