

Study Plan Name: Wildlife Habitat Enhancement

Study Plan Designation: SMP 03

Study Short Description: Develop a plan to provide wildlife habitat enhancements

Applicable Hydro Projects/Developments: All

Prerequisite Study Designation: Aquatics 01, 02, 03, 06 and 07; Terrestrial 01, 02, 03, 04, 05 and 06

The purpose of this document is to describe the study scope, basic methodology and how results will be used. Study Teams and Resource Committees may develop supplemental study methodology details if and when they determine them to be necessary.

I. Study Objective

A habitat enhancement funding program has already been approved via the revised SMP approved October 15, 2003, by the Federal Energy Regulatory Commission (FERC). This study would develop a plan for making actual enhancements. Study should consider results of fish and wildlife habitat inventories conducted in other relicensing studies

Deleted: proposed with

Deleted: currently being considered

- a) Review any existing fish and wildlife management plans for Catawba-Wateree reservoirs and consult with resource management agencies to develop a list of goals and objectives for improving fish and wildlife habitat in and adjacent to, each project reservoir.
- b) Develop fish and wildlife habitat enhancement plan for each Catawba – Wateree reservoir

II. Basis

Duke and the agencies desire to provide an effective means of allowing continued private and public recreational access to the Project as well as cooperative habitat enhancement by implementing the Habitat Enhancement Program (HEP). In general, the HEP requires all individual private pier owners and Commercial/Residential marina owners seeking Duke permits for new structures or to expand or rebuild existing structures, to contribute financially to a fund. This fund, directed by an HEP Review Board, is to equitably support fish and wildlife habitat enhancement, creation and protection activities within and contiguous with the Project Boundary, and other areas.

Deleted: ,

Deleted: the

The Habitat Enhancement Program (HEP) Memorandum of Agreement (MOA) entered into by the North Carolina Wildlife Resources Commission (NCWRC), South Carolina Department of Natural Resources (SCDNR) and Duke Power was developed to address issues regarding woody debris and structural, shallow water fish habitat. The HEP was developed to generate funding from the Private Facilities and Commercial/Residential Facilities Permitting programs to establish a means to support habitat enhancement activities within the project boundary; all Duke-owned islands in the vicinity of the Project;

Deleted: STUDY PLAN HABITAT ENHANCEMENT

Deleted: .

Deleted: 1

Deleted: 7

Catawba-Wateree Hydroelectric Project (FERC No. 2232)

Study Plan Scope Document

Deleted: DRAFT

all Duke-owned Public Recreation Areas in the vicinity of the Project; all land and water areas contiguous with the Project Boundary and the river stretches in the Catawba Basin in the counties bordering the C-W Project and for which the NCWRC or the SCDNR or the Board-approved applicant has obtained the land owner's written permission to make fish and wildlife habitat enhancements on their property. This study will investigate the various types of habitat enhancement activities that would be most beneficial to the wildlife and habitat associated with the project. Beneficial enhancement activities will become evident as the various relicensing studies are conducted.

The FERC licensing process requires an assessment of any potential impacts to fish and wildlife resources by the project and its operation (18CFR4.51). Based on information from relicensing studies as well as the Catawba-Wateree Shoreline Management Plan, Duke will develop plans for protection and enhancement of fish and wildlife habitat.

III. Geographic and Temporal Scope

The study area includes the jurisdictional and activity enhancement areas identified in the MOA which include the project boundary; all Duke-owned islands in the vicinity of the Project; all Duke-owned Public Recreation Areas in the vicinity of the Project; all land and water areas contiguous with the Project Boundary and the river stretches in the Catawba Basin in the counties bordering the C-W Project and for which the NCWRC or the SCDNR or the Board-approved applicant has obtained the land owner's written permission to make fish and wildlife habitat enhancements on their property. The study will be conducted once the other (both terrestrial and aquatic) wildlife and habitat relicensing studies are complete.

Existing data will be reported along with supplemental data from each reservoir and appropriate tailwater areas. Final reporting should be completed by the fall of 2005.

IV. Summary of Existing Data

The 2001 SMP Update includes a set of maps based on the shallow water fish habitat survey information collected in 1998. Duke Power also has digital aerial photography of the entire C-W Project boundary including the riverine sections below the Bridgewater, Oxford and Wylie developments collected in 2000. Catawba and Lincoln counties have recently conducted Natural Heritage inventories for rare, threatened and endangered species within their borders.

Deleted: e

Duke has been gathering fish community data at various locations along the Catawba-Wateree Project impoundments on a periodic basis for the past 30 years. These data were summarized in the First Stage Consultation Document and will provide the basis for a part of this study.

V. Methodology

Convene a study plan team of natural resource agency representatives that can provide input into the development of a comprehensive plan for identifying and implementing habitat enhancement activities that can be carried out utilizing funds generated as part of the HEP. Important wildlife and habitat areas for special consideration will be identified as a result of other relicensing studies. A methodology will be developed that prioritizes enhancement opportunities so that once enough money is collected as part of the fund those dollars can be utilized. A variety of enhancement options will be developed with differing levels of funding needs. This will ensure small habitat enhancement activities are conducted in the interim while the fund balance grows to meet larger more expensive enhancement activities. The team will also investigate other sources of funding to supplement the HEP dollars.

Deleted: STUDY PLAN HABITAT ENHANCEMENT

Deleted: .

Deleted: 1

Deleted: 7

Catawba-Wateree Hydroelectric Project (FERC No. 2232)

Study Plan Scope Document

Deleted: DRAFT

If comprehensive fish management plans or other relevant state fisheries management data are available, Duke will review these documents. Note: NCWRC intends to provide draft management plans in early 2004 with plans finalized by mid-2004. Duke will consult with responsible state management agency biologists (NCWRC and SCDNR) to develop a list of management recommendations and priorities for each development. Available fisheries data collected by Duke for each impoundment (See Aquatic 01) will also be summarized and reviewed with management biologists from NCWRC and SCDNR. Updated shoreline habitat maps including available information on habitat within the water level fluctuation zone and the magnitude, frequency/seasonality, and duration of water level fluctuations in each reservoir (See Aquatic 02) will be reviewed and discussed with the management agency biologists. Based on this information, a fish and wildlife habitat protection and enhancement plan for each development will be developed in consultation with NCWRC and SCDNR. Potential enhancement measures may include structural fish habitat, aquatic/riparian vegetation management practices or operation changes related to water levels where/when feasible from the perspective of power generation and other uses.

VI. Schedules and Required Conditions

Discussion of potential habitat enhancement activities can begin at any time, but final prioritization of activities can not take place until at least preliminary data regarding important fish and wildlife and special habitat areas are identified as part of several other relicensing studies (e.g. Aquatic 01, 02, 03, 06 and 07; Terrestrial 01, 02, 03, 04, 05 and 06). Information review and consultations with agencies will begin in 2005. Initial plans for each impoundment will be developed by April 29, 2005 with final plans completed by November 31, 2005.

Deleted: spring

Deleted: Septembe

Deleted: r

Deleted: December

VII. Use of Study Results

The results of this study will be used to enhance fishery and wildlife resources of the Catawba – Wateree system by implementing the Memorandum of Agreement for habitat enhancement. The study results will be used to provide a prioritized list of enhancement opportunities to the HEP Boards in each state. This will ensure that there are identified enhancement activities that can be considered by the HEP Boards once fund balances reach certain targeted levels. This information can be used by the HEP Boards as they consider other habitat enhancement activity requests for funding.

VIII. Study Participants

Table with 5 columns: Name, Organization, Phone #, E-Mail. Rows include Duke Study Leads (Joe Hall, Steve Johnson) and Agency Leads (Chris Goudreau, Dick Christie, Mark Cantrell, Amanda Hill, Pres Brownell, Ron Ahle).

Deleted: STUDY PLAN HABITAT ENHANCEMENT

Deleted: .

Deleted: 1

Deleted: 7

Catawba-Wataree Hydroelectric Project (FERC No. 2232)

Study Plan Scope Document

Deleted: DRAFT

	<u>Name</u>	<u>Organization</u>	<u>Phone #</u>	<u>E-Mail</u>
			<u>2728</u>	<u>.state.sc.us</u>
Supporting Consultants	Scott Fletcher	DTA	704-342-7380	Scott.fletcher@devinetarbell.com
	Steve Arnold	DTA	207-775-4495	Stephen.arnold@devinetarbell.com
Other Participants	Tim Gestwicki	NCWF	704-377-4696	NCWR_Charlotte@mindspring.com

IX. List of Attachments

X. List of References

- Natural Heritage Inventories Catawba and Lincoln counties
- Habitat Enhancement Program and MOA
- Species Protection Plans (C-W 2001 SMP Update)

Deleted: STUDY PLAN HABITAT ENHANCEMENT

Deleted: .

Deleted: 1

Deleted: 7