

**Action:** Trash Removal Plan

**Prerequisite Actions:** none

**Action Description:**

Develop trash removal plan for general litter and trash rack debris.

**Applicable Hydro Projects/Developments:**

Bryson(2601), Dillsboro(2602), Franklin(2603), Mission(2619), Tuckaseegee (Little Glen-ville –2686), White Oak ( Nantahala—2692)

### I. Objective

To determine a safe, cost effective, environmentally sound means of removing and disposing of debris that collects on the intake racks.

### II. Basis

Debris collects on the intake racks and reduces water flow into the turbine. This debris consists of naturally occurring materials, such as leaves and sticks, and man-made materials, such as plastics and metal products. Removal and disposal of this material must be done on a regular basis. Over time, some of this debris builds up in front of the intake racks, reducing intake area and causing increased pressures on the racks.

### III. Geographic and Temporal Scope

Area most affected is directly in front of the intake racks. Disposal can affect areas below dams.

### IV. Approach and Analysis

We know that trash and debris is in and near all our streams. Some of this debris, that which is organic and biodegradable, is important for the stream ecosystem. Other trash, mostly man made and non-biodegradable, needs to be removed and disposed of properly. Duke Power realizes that having a clean environment is important for all life. Duke Power-Nantahala area will initiate the following actions to improve trash removal and to help ensure a cleaner environment:

- (1) Suitable collection containers will be placed at all the run of river plants near the intake racks. Each day an operator removes trash off the intake racks, he will separate the non-biodegradable from the biodegradable. The biodegradable will be passed on down the river. Non biodegradable trash will be put into the collection container. A log sheet will be kept at each run of river plant. When the collection container becomes full, the operator will dispose of the trash at a proper land fill facility. He will log the date of disposal and the approximate amount of trash.
- (2) Only a small portion of the total trash in the river is deposited on the intake racks. This is because most trash is moved down the river during high stream flow events. During these events the tainter gates open to help stabilize reservoir levels. River currents are greater near the tainter gates. Hence, most of the trash and debris goes through the tainter gate openings and down the river. Much of this trash gets deposited on the riverbanks. There are several groups and organizations that are involved in river clean up projects. Duke Power-Nantahala area will be an active participant in these river clean up efforts by helping sponsor or promote some of these projects. We will also help increase public awareness on clean water ways by working with state and local groups such as the public schools.
- (3) Duke Power already helps promote an annual lake cleanup effort, Big Sweep, on their other reservoirs. This same effort will be expanded onto the Nantahala area lakes.

**V. Schedules and Required Conditions**

- The trash removal process at the run of river plants has been established. All operators will be trained on the logging procedures by March 31, 2001.
- Duke Power- Nantahala area will help promote the National River Clean-up Day in May.
- Duke Power- Nantahala area will help promote “Big Sweep” on the lakes in September.

**VI. Results**

**VII. Participants**

	<b>Organization</b>	<b>Name</b>	<b>Phone #</b>	<b>E-Mail</b>
<b>NP&amp;L Lead</b>	Duke Power	Gary J. Morgan	828-369-4561	gjmorgan@duke-energy.com
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	NC Wildlife Res. Comm.	Chris Goudreau	828-652-4360	goudrecj@wnclink.com
<b>NP&amp;L Supporting Consultant</b>				
<b>Other Participants</b>		William G. Crawford	828-524-2280	wgcrawford@hotmail.com
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**VIII.Expected Benefits**

Development of a safe, cost effective, environmentally sound means of removing and disposing of debris that collects on the intake racks. Increase public awareness on the need for clean water ways by working with state and local groups.