



# Claytor Hydroelectric Project Wetlands, Riparian, Woody Debris, Littoral & Bald Eagle Habitat Study and Native and Exotic Aquatic Vegetation Study

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# Wetlands & Riparian Habitat Objectives

- Identify, map and quantify wetlands and riparian habitats
  - Separately quantify wetlands within impoundment fluctuation zone
- Assess effects of current Project operations on wetland and riparian habitats
  - Wetlands to focus on Fall drawdown zone
  - Riparian to focus on logging and other land use
- Assess the effects of sedimentation and erosion on wetland and riparian habitats
- Identify measures to protect and enhance wetland and riparian habitats

# Wetlands & Riparian Habitat

- Claytor Lake and tributaries with 1000' buffer
  - Riparian habitat extends 2000' downstream
- Aerial photos flown by AEP in March
  - Black & white, 1"=800' (1:9600)
  - Bathymetric and topographic 2' contours
- Delineate and cover type all wetland and riparian habitats
  - Aquatic vegetation – forested wetlands
  - Concentrate on reservoir-influenced wetlands
- Minimum map unit = 0.5 acre

## Summary of Cover Types in Claytor Project Area

<b>Upland</b>	<b>8576</b>	<b>65.2%</b>
<b>Floodplain</b>	<b>72</b>	<b>0.5%</b>
<b>Wetland</b>	<b>124</b>	<b>0.9%</b>
<b>Aquatic bed</b>	<b>288</b>	<b>2.2%</b>
<b>Reservoir</b>	<b>4084</b>	<b>31.1%</b>
<b>Total</b>	<b>13143</b>	<b>100.0%</b>

# Cover Type Breakdown

<u>Upland</u>	Acres	Percent
Forest	5736	67%
Shrub	47	1%
Grass	1269	15%
Residential/commercial	1523	18%
Total	8576	100%

## Floodplain

Forest	14	20%
Grass	16	23%
Residential/commercial	41	57%
Total	71	100%

# Terrestrial Wetland Cover Types

<u>Wetland</u>	Acres	Percent
Forested	80	65%
Scrub/shrub	4	3%
Emergent	29	23%
Open water	11	9%
Total	124	100%

# Bald Eagle Study Objectives

- Identify and map all known & potential bald eagle habitat
- Identify any proposed construction activities near known nests or potential roosting or perching habitat
- Assess Project impacts, if any, on bald eagles or habitat

# Native & Exotic Aquatic Vegetation Objectives

- Determine composition and map distribution of aquatic vegetation
- Identify beneficial native aquatic vegetation for potential protection measures
- Determine the need for a program to control exotic aquatic vegetation

# Methods

- Background info from State & private
- Preliminary site visit in mid-July
- Mapping from aerials and ground
- 50 transects in mid-August
- Revising maps now
  - Waiting for one more set of oblique photos

# Reservoir Cover Types

## Reservoir

Open water	4084	93%
Aquatic bed	288	7%
Debris	4	0%
<b>Total</b>	<b>4376</b>	<b>100%</b>

# Aquatic vegetation on Claytor Lake

- Hydrilla (*Hydrilla verticillata*)
- Brittle naiad (*Najas minor*)
- Elodea (*Elodea canadensis*)
- Curly pondweed (*Potamogeton crispus*)
- Water celery (*Valisneria americana*)
- Pondweed (*Potamogeton diversifolius*)
- Pondweed (*Potamogeton nodosus*)
- Pondweed (*Potamogeton foliosus*)

# Schedule

- Bald eagle surveys March & May 2007
- Aerial photointerpretation May-June 2007
  - Wetlands, riparian, SAV, eagle habitat
- Progress report May 2007
- Preliminary SAV survey mid-July 2007
- Field surveys for SAV/cover types August 2007
- Progress report November 2007
- Littoral field survey November 2008
  - Timed with fall drawdown
- Draft report January 2007
- Final report March 2007