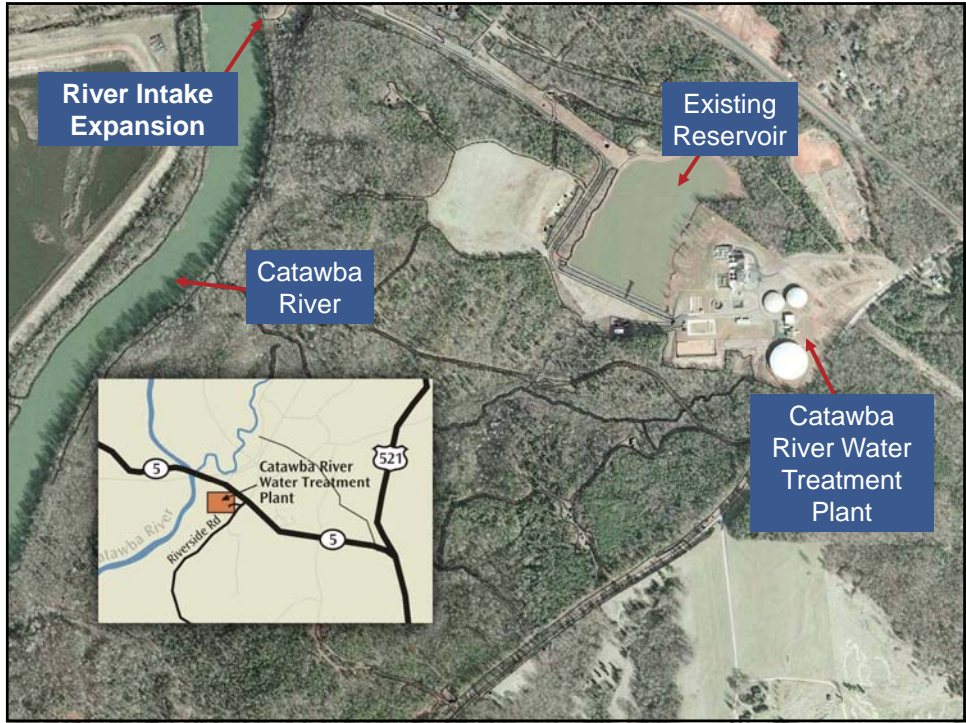


## CATAWBA RIVER WATER SUPPLY PROJECT

### About the Catawba River Water Supply Project

- Joint venture formed in 1991
- 50/50 owners: Lancaster Water and Sewer District, Union County, N.C.
- Provides affordable, reliable source of quality drinking water to the two counties

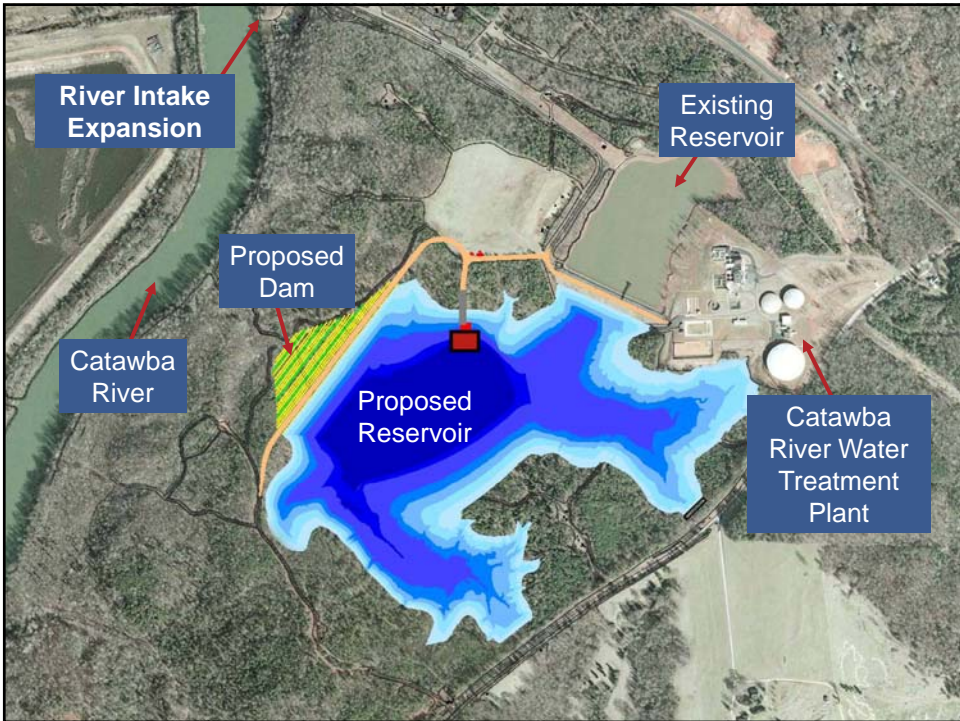
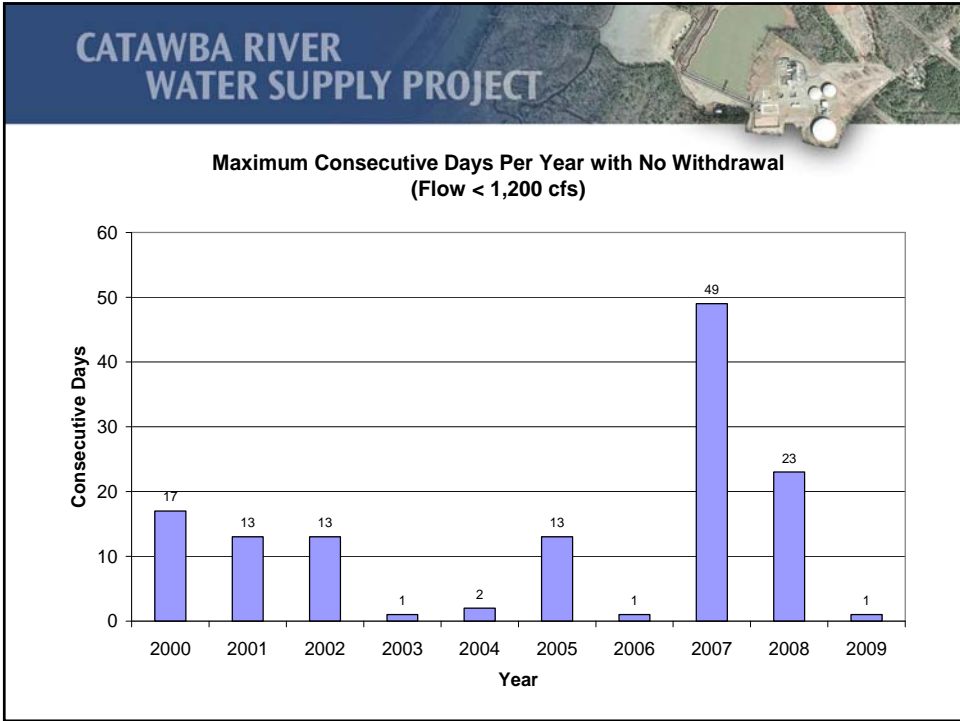
This block contains an aerial photograph of the same water reservoir and treatment facility as the first image. The text is overlaid on the image, with the top part in a dark blue banner and the bottom part in white.



**CATAWBA RIVER WATER SUPPLY PROJECT**

### New Reservoir Needed

- Current storage capacity limited: 3-day supply
- CRWSP must reduce or stop river withdrawals in low flows, droughts (river flows <1,200 cfs or less)
- New low inflow protocol by Duke/Relicensing
  - Requires higher water conservation
  - Stricter use regulations in droughts, low flows
- New reservoir a drought buffer that reduces demand on river during low flows
- Helps meet customers' needs, reduces impact on downstream users during low flows/droughts





## CATAWBA RIVER WATER SUPPLY PROJECT

### CRWSP Background

- **1989:** S.C. Withdrawal permit issued for 100 mgd, 20 mgd IBT. Permit requires 300 MG reservoir **OR** water release agreement
- **1993:** CRWTP built with initial capacity 12 mgd
  - ❖ CRWSP secures release agreement from Duke
- **1998:** CRWTP high rate increases capacity to 18 mgd
- **2002:** CRWTP survives first major drought using release agreement
- **2003:** CRWTP expansion to 36 mgd



## CATAWBA RIVER WATER SUPPLY PROJECT

### CRWSP Background

- **2006:** Duke accepts new (LIP) as part of FERC Relicensing
- **2007:** Stage 3 Drought conditions occur
- **2008:** In Stage 4 conditions of the LIP, CRWSP and Duke Energy agreed Duke would no longer guarantee the release of 71cfs.
- **2010:** Existing 100MG reservoir = 3 days storage at 36 MGD treatment capacity

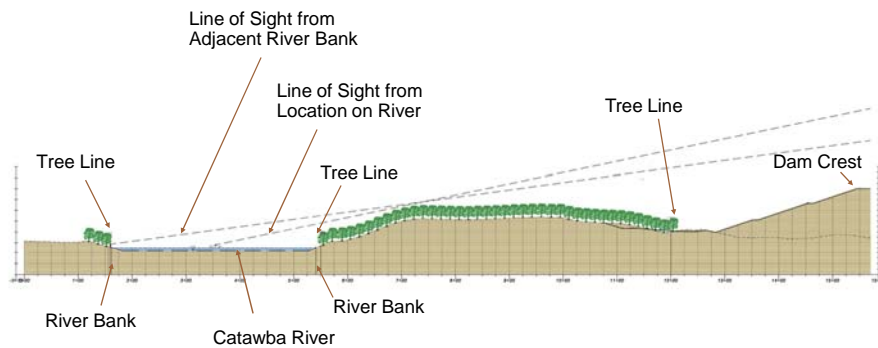
## CATAWBA RIVER WATER SUPPLY PROJECT

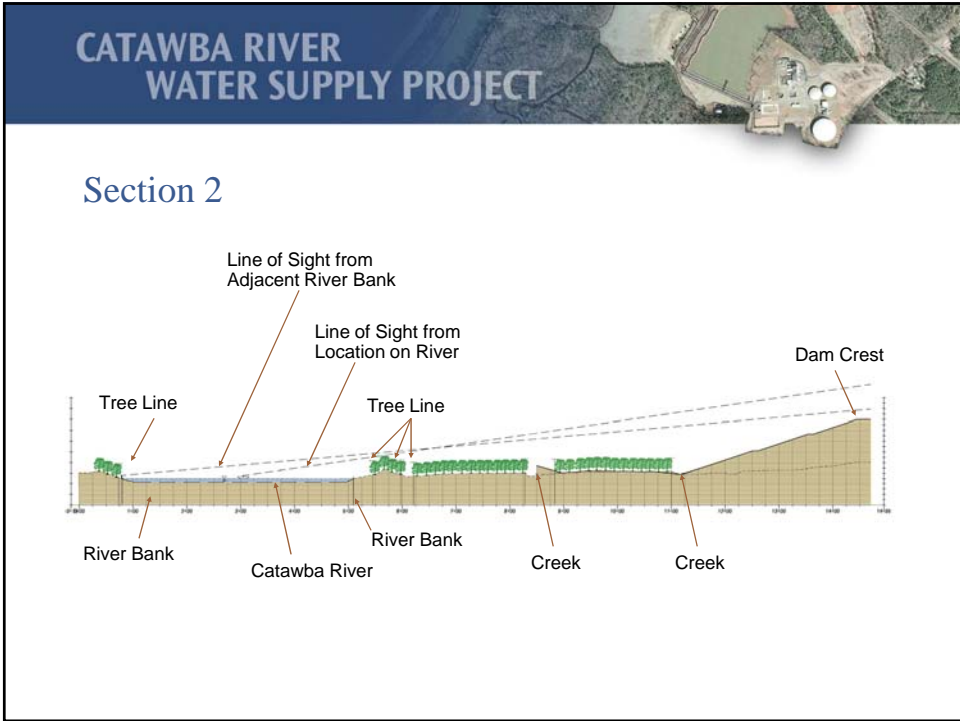
### About the New Reservoir

- No change in 100 mgd river withdrawal permit
- 900+ MG usable storage capacity
- Allows CRWSP to conserve river withdrawals in low flows
- Withdrawals during high/normal flows stored for use during drier times
- 700 feet from river, 500 feet of buffer
- Reservoir obscured from view from river

## CATAWBA RIVER WATER SUPPLY PROJECT

### Section 1





### CATAWBA RIVER WATER SUPPLY PROJECT

#### About the New Reservoir

- 92 acre surface area
- Earthen dam with 90 ft impoundment depth regulations
- 900+ MG usable storage capacity
- Overflow spillway offset from dam
- Existing reservoir used for pre-settling
- New reservoir pump station suitable for 100 mgd permitted withdrawal
- Hydraulic improvements to existing reservoir



## CATAWBA RIVER WATER SUPPLY PROJECT

### About the New Reservoir

Other benefits include:

- Water quality improvements
- Flexible withdrawal options: e.g., unfavorable water quality events
- Improved raw water supply reliability
- Reduced operating costs through power peak shaving



## CATAWBA RIVER WATER SUPPLY PROJECT

### Environmental Impacts

- No endangered or threatened species found
- No cultural or historical resources found
- Reservoir project will impact some streams and wetlands on CRWSP property
- CRWSP will make improvements in nearby areas, using Army Corps of Engineers guidelines
  - Stream and wetland habitat improvements on sites managed by other entities



## CATAWBA RIVER WATER SUPPLY PROJECT

### Next Steps to Completion

- U.S. Army Corps of Engineers, S.C. DHEC grant water quality certification permits
- Obtain state permits for dam construction and other activities
- CRWSP submitted permit application to regulatory agencies in October 2010
- Construction to begin after permits obtained
- Anticipated completion: Fall 2013



## CATAWBA RIVER WATER SUPPLY PROJECT

### Benefits of the Reservoir

- Ability to maintain safe and reliable water supply to the two counties
  - Increase from 3 days to 30 days stored supply
- Continued capacity to support community water needs while conserving in droughts
- We need your support