

# CATHEY'S CREEK TECHNICAL WATERSHED ASSESSMENT

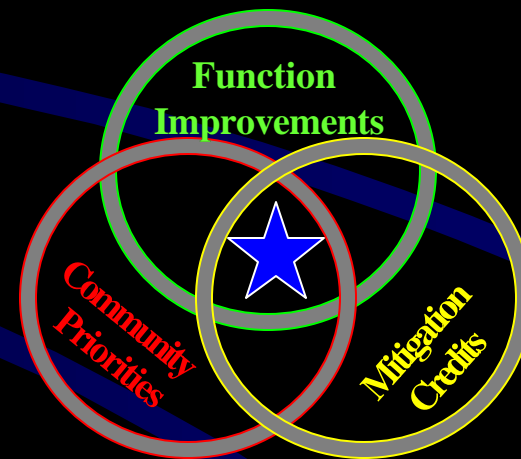
## PLANNING MISSIONS

Direct the Wetlands Restoration Program's project implementation

Assist your community by providing the technical data needed to justify and support your missions and projects

## ASSESSMENT MISSION

Prioritize the Best Projects



NC Wetlands



# ASSESSMENT PROCESS

## Characterization

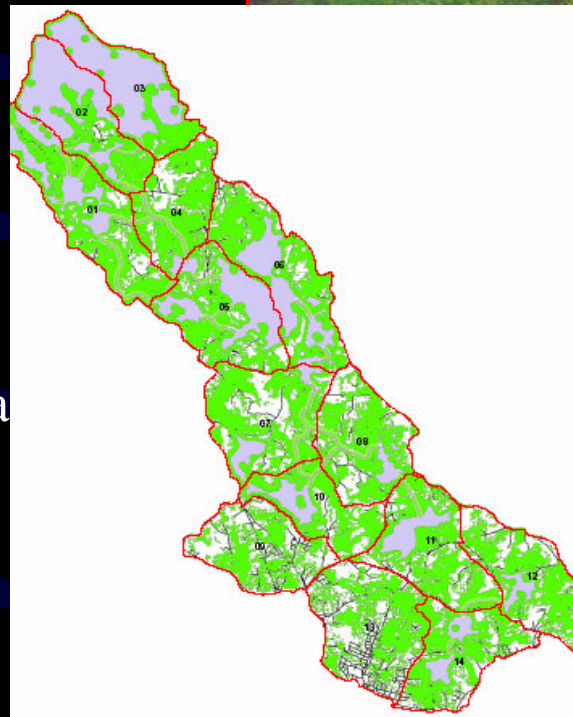
- ➔ gathering info
- ➔ GIS based

## Detailed Analysis

- ➔ fieldwork
- ➔ monitoring
- ➔ identify focus area

## Specific Solutions

- ➔ education
- ➔ restoration
- ➔ ordinances



# CHARACTERIZATION RESULTS

## History

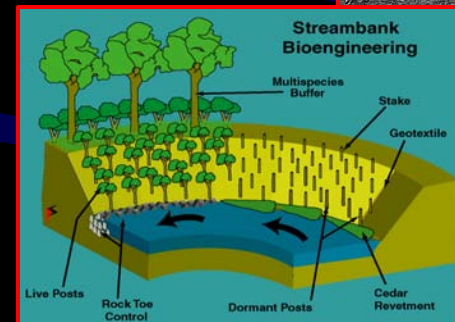
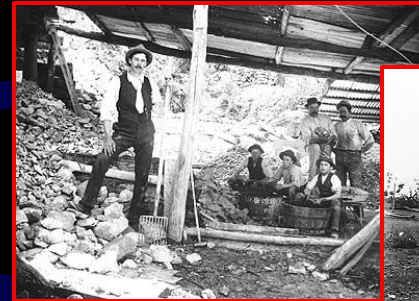
- ➔ mining, timbering, farming (18%)
- ➔ streams show adjustment

## Land use/cover

- ➔ highly vegetative (74%),
- ➔ young forests, exotic invasives
- ➔ overland and streambank BMP's
- ➔ nursery crops and development

## Subwatershed Conditions

- ➔ water quality- non-point sources and streambank erosion
- ➔ hydrology- realigned and incised channels, instream impoundments
- ➔ habitat- cleared areas, managed land





# CHARACTERIZATION RESULTS

Sub-watershed group	A	B	C	D
Forested area	--	-	-	-
Buffered streams	--	-	--	-
Corridors	-	--	--	-
Potential sites	3	11	12	13

# DETAILED ANALYSIS

- Water Quality Monitoring
  - oxygen, nitrogen, phosphorus
  - sediment, temperature
- Macroinvertebrate Sampling
  - variety of types
  - percentage of each type
- Stream Assessment
  - bed, bank, floodplain
  - quantify conditions
  - special impacts
- Sediment Sampling
- Fish Sampling



# WATERSHED FUNCTIONS

## FUNCTIONS

### Water Quality

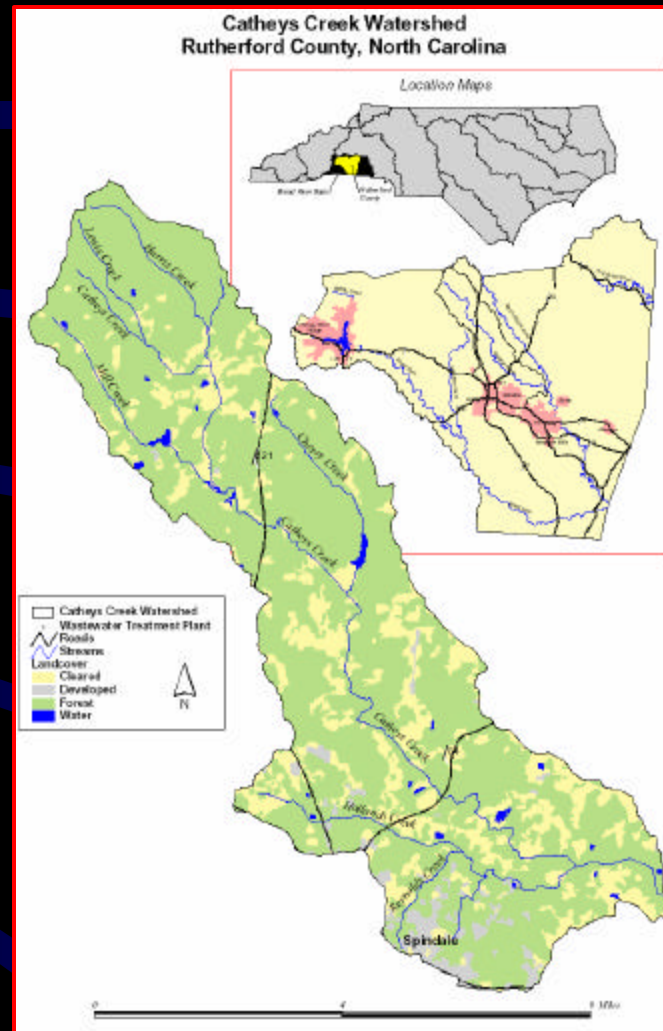
- ➔ nutrients
- ➔ sediment
- ➔ temperature

### Hydrology

- ➔ flood frequency
- ➔ stream network
- ➔ channel stability

### Habitat

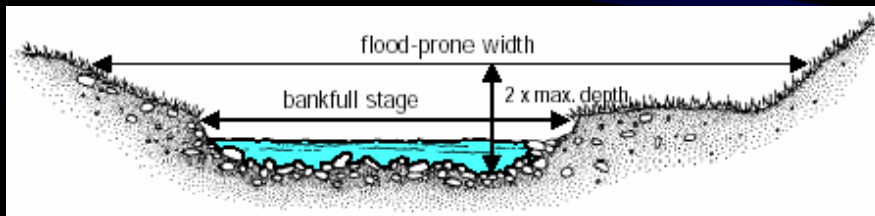
- ➔ land cover
- ➔ plant types



# FUNCTION INDICATORS

## Water Quality

- ➔ chemical content
- ➔ bug community
- ➔ fish community



## Hydrology

- ➔ available floodplain
- ➔ channel shape, pattern, profile
- ➔ bed material

## Habitat

- ➔ amount, type, variety
- ➔ geographical location



# YOUR IDEAS FOR INDICATORS OF WATERSHED CONDITION

Qualitative/Quantitative

Data

Observations

Measures

Critical areas

