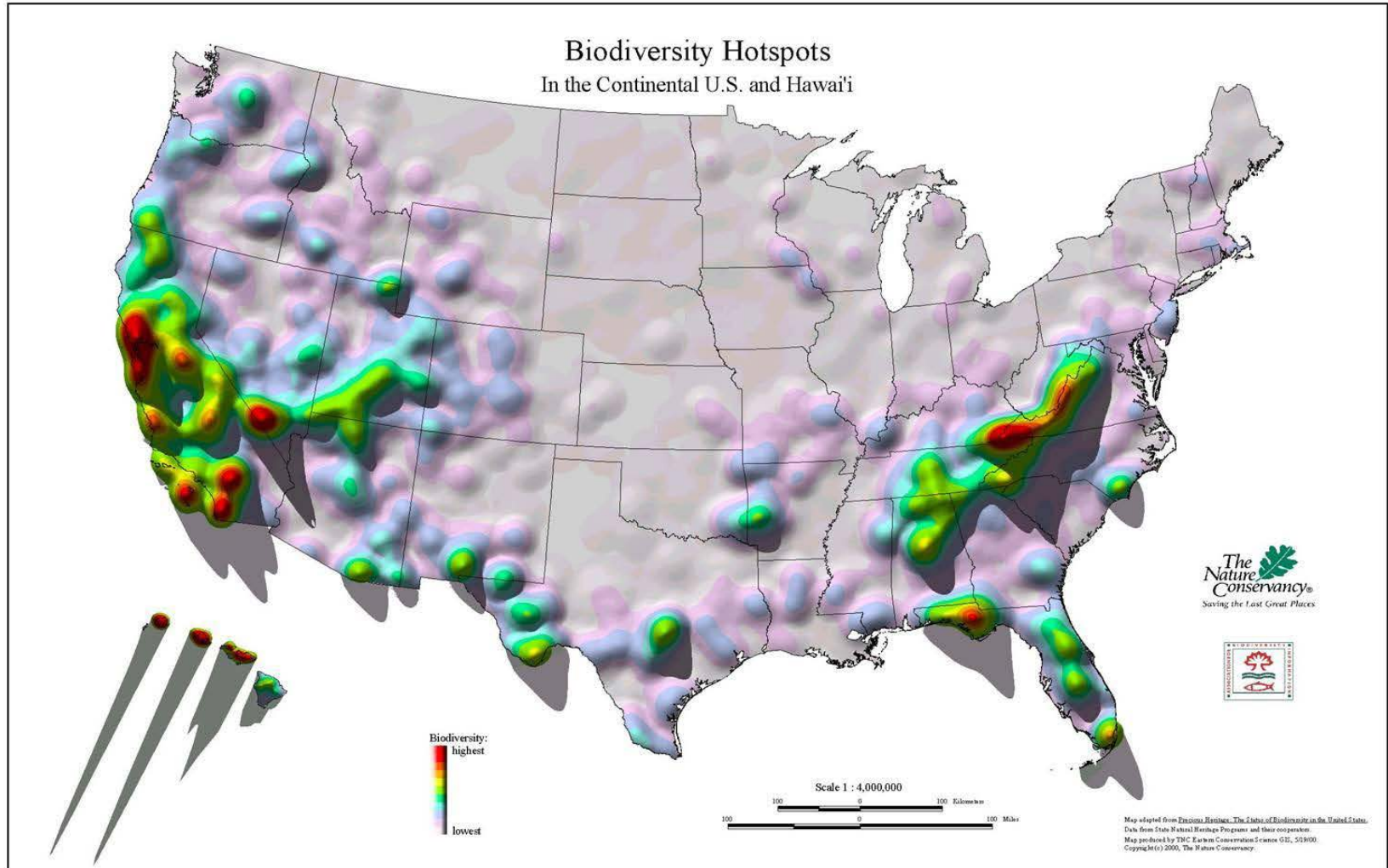




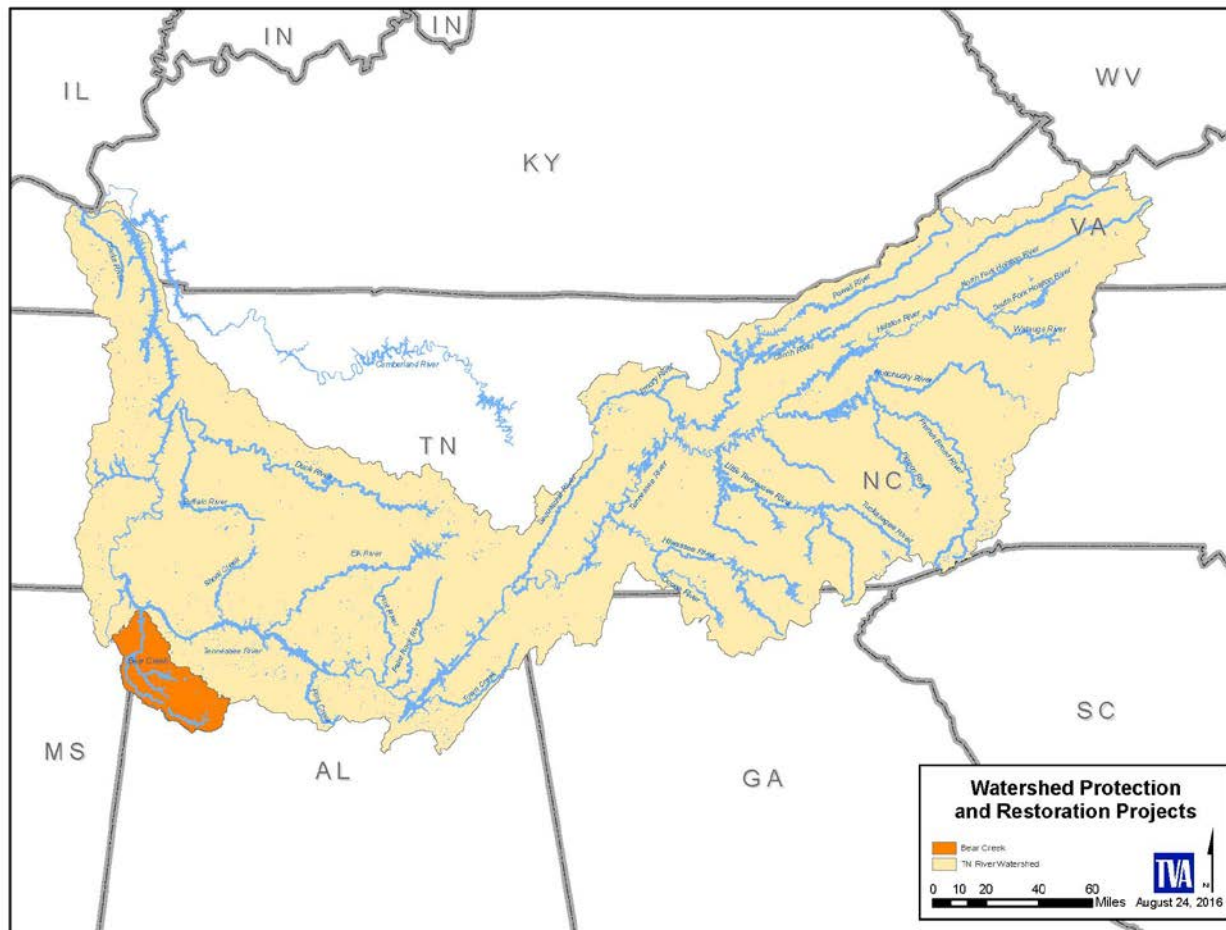
# **PARTNERSHIP ACTIVITIES HELP ADDRESS WATER QUALITY ISSUES IN BEAR CREEK WATERSHED**

Orange Beach, Alabama  
September, 2016

# TVA Tennessee River Watershed



# TVA Bear Creek Watershed



# TVA Bear Creek Watershed

- ◆ Portions of Alabama and Mississippi
- ◆ 945 square miles
- ◆ Five reservoirs
  - Pickwick (1938)
  - Upper Bear (1978)
  - Big Bear (1969)
  - Cedar (1979)
  - Little Bear (1975)



- ◆ Bear Creek Floatway pathogen reduction
- ◆ Harris Creek 319 projects (Phase I and II)
- ◆ Outreach-Education programs
  - Envirothon
  - Cool Runnings
  - Kids-in-the-Creek





- Partners:** GSA, USFWS,  
MDEQ, ADEM, Alabama  
Clean Water Partnership,  
Franklin Co SWCD, NRCS
- ◆ Create a Strategic Habitat Unit Plan
  - ◆ Implement restoration and habitat improvement projects
  - ◆ Collect, propagate, and reintroduce mussels
  - ◆ Evaluate reservoir releases and flows

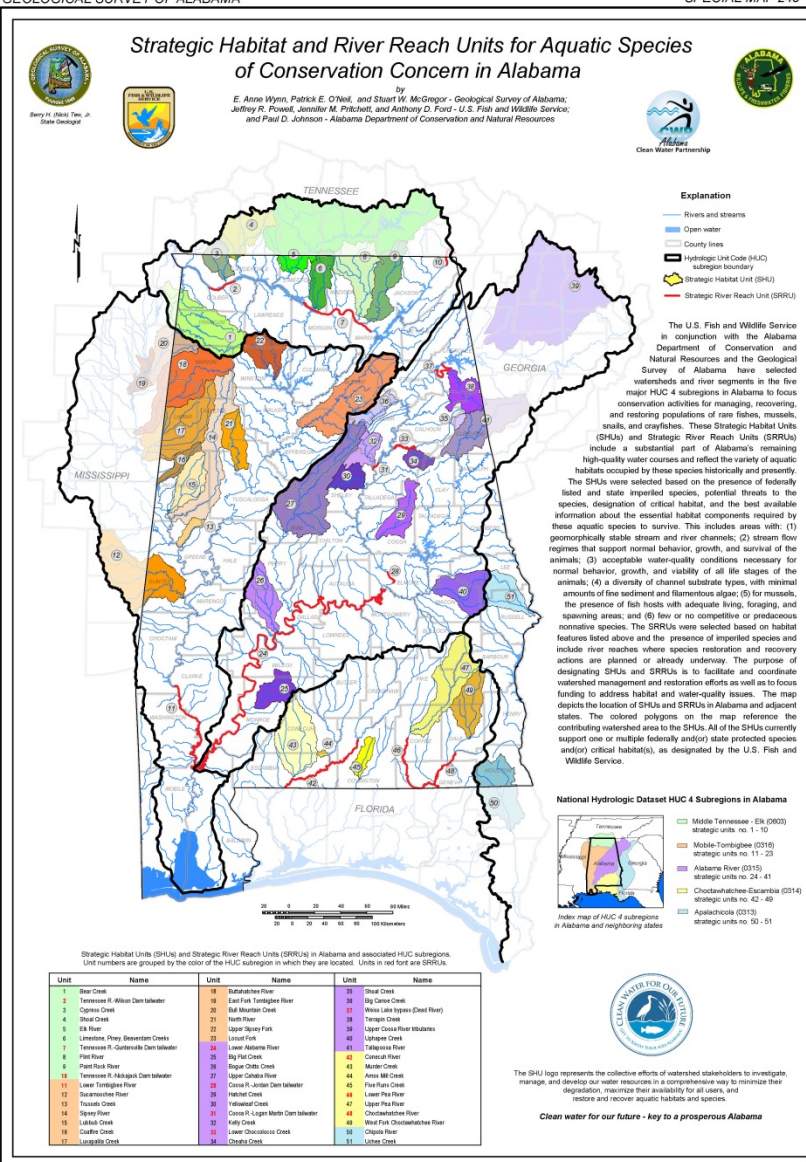


## Bear Creek SHU

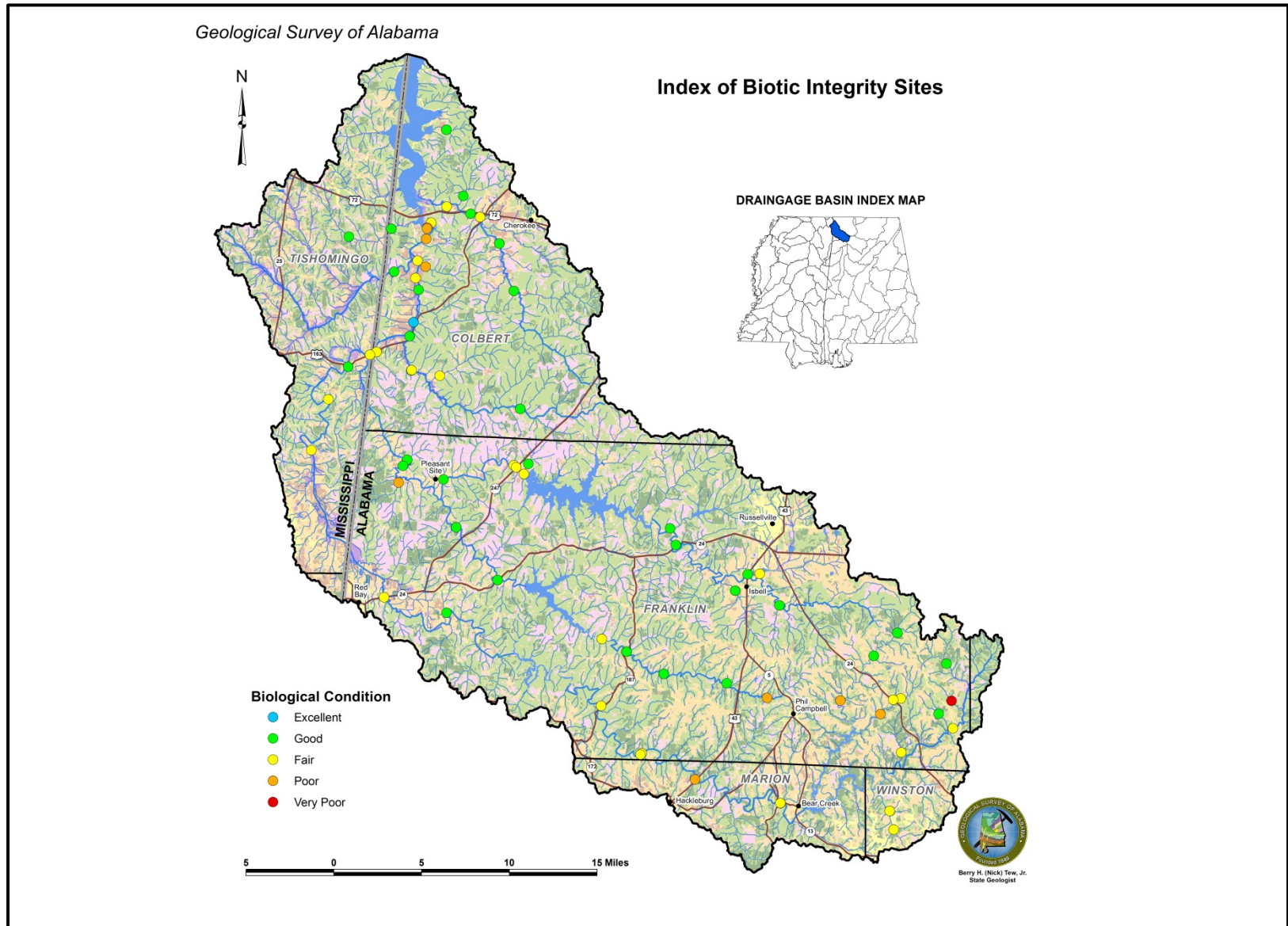
- ◆ Index of Biotic Integrity (IBI) monitoring
- ◆ Stream crossing assessments
- ◆ High Definition Stream Survey

GEOLOGICAL SURVEY OF ALABAMA

SPECIAL MAP 248



# TVA Index of Biotic Integrity

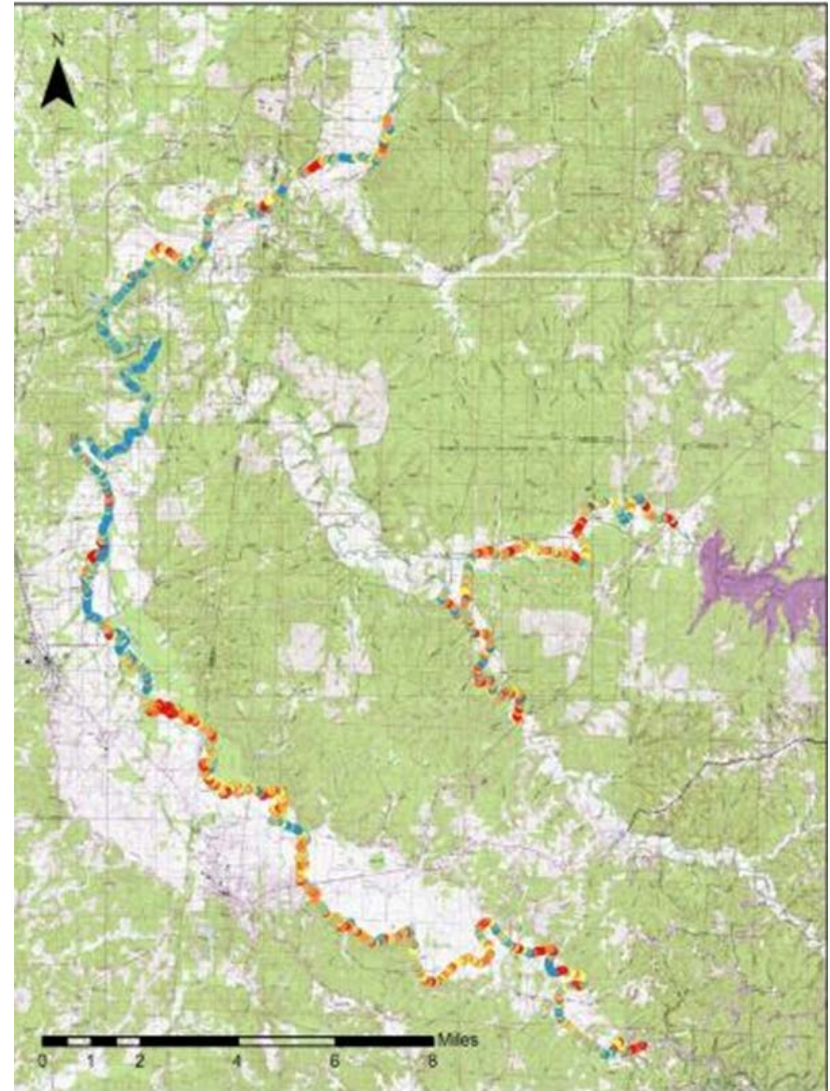




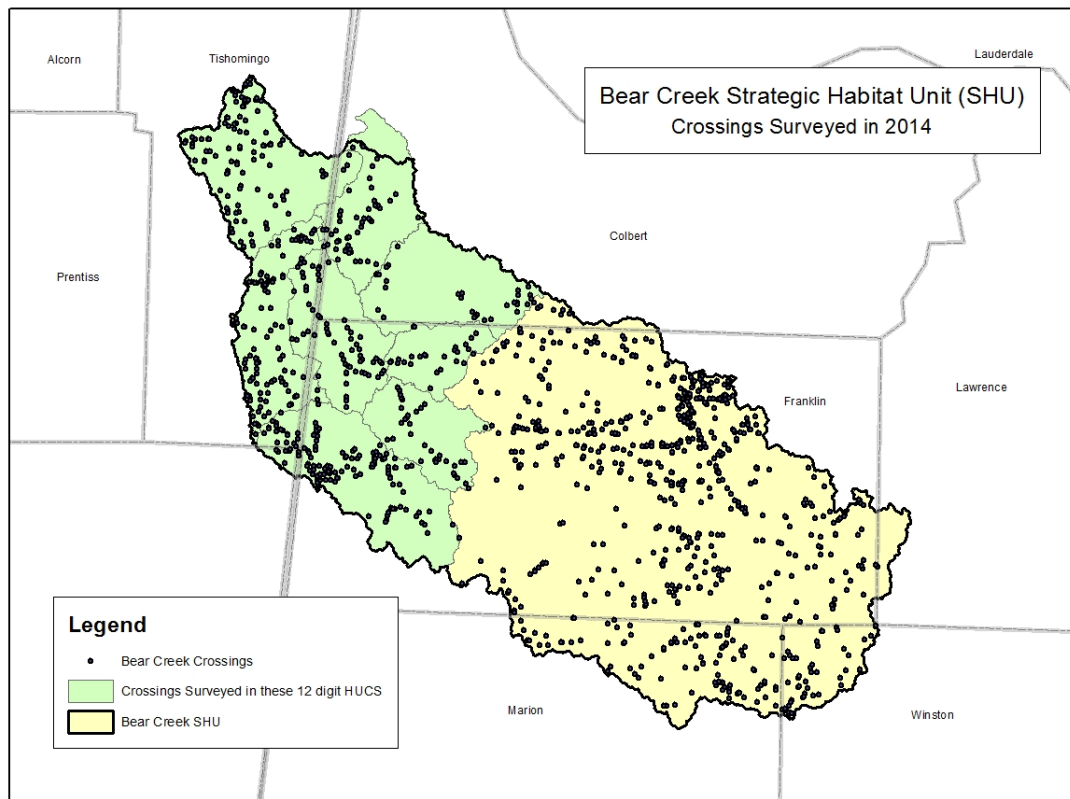
# TVA High Definition Stream Survey



Bear Creek Project: Left BESl Scores



# TVA Stream Crossing Assessment





## **Streambank Stabilization**

- ◆ Partnership between the Landowner, TVA, FWS, NRCS
- ◆ Stabilize 475 feet of eroding streambank
- ◆ Hard armor with 35 feet riparian buffer



## Tishomingo State Park

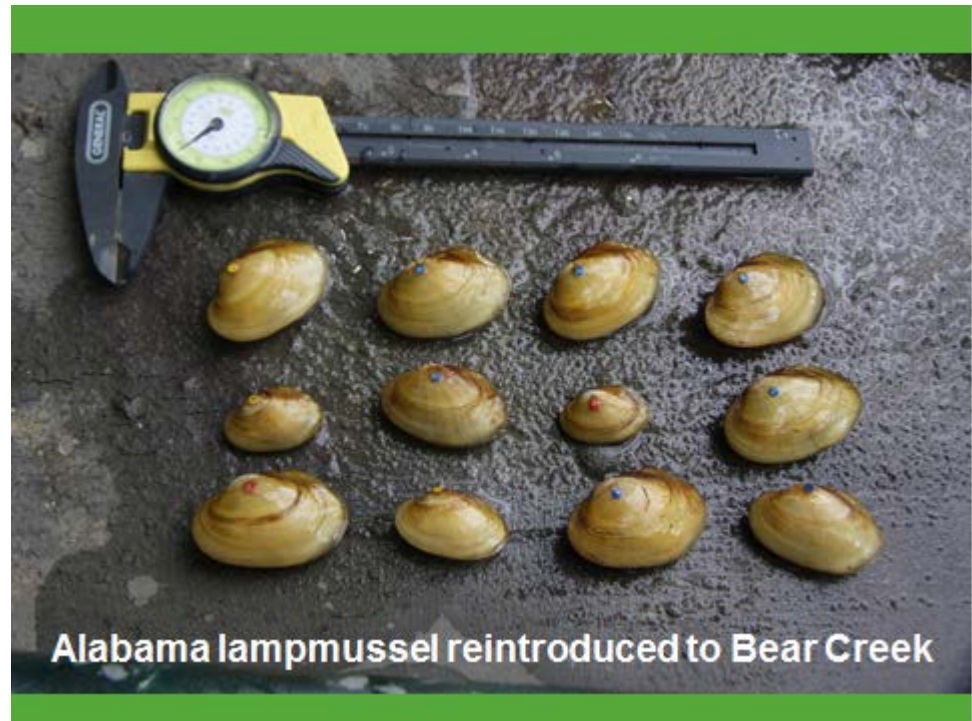
- ◆ Stabilize approximately 100 ft.
- ◆ Resurface roadway
- ◆ Outreach Signage
- ◆ Kids in the Creek and River Kids





## Mussel Reintroduction

- ◆ Alabama Aquatic Biodiversity Center
  - Collecting brood stock
  - Culturing and rearing
  - Reintroducing into suitable habitat



- ◆ Complete Bear Creek SHU
- ◆ Prioritize problem areas and implement restoration and habitat improvement projects
- ◆ Continue to reintroduce mussels
- ◆ Conduct snail darter surveys
- ◆ Develop outreach plan

