

ALABAMA Update April, 2010

COMMUNITY COORDINATION

During 2009 ADEM worked with a variety of communities on stream restoration projects. Each project promoted the change from drainage ditch to stream. The projects also afforded local schools the opportunity to become involved in the restorations and monitoring events. One such stream was located in Montgomery, AL, in a municipal park.

The “Before” photos show a fairly straight stream bed that promoted rapid drainage.

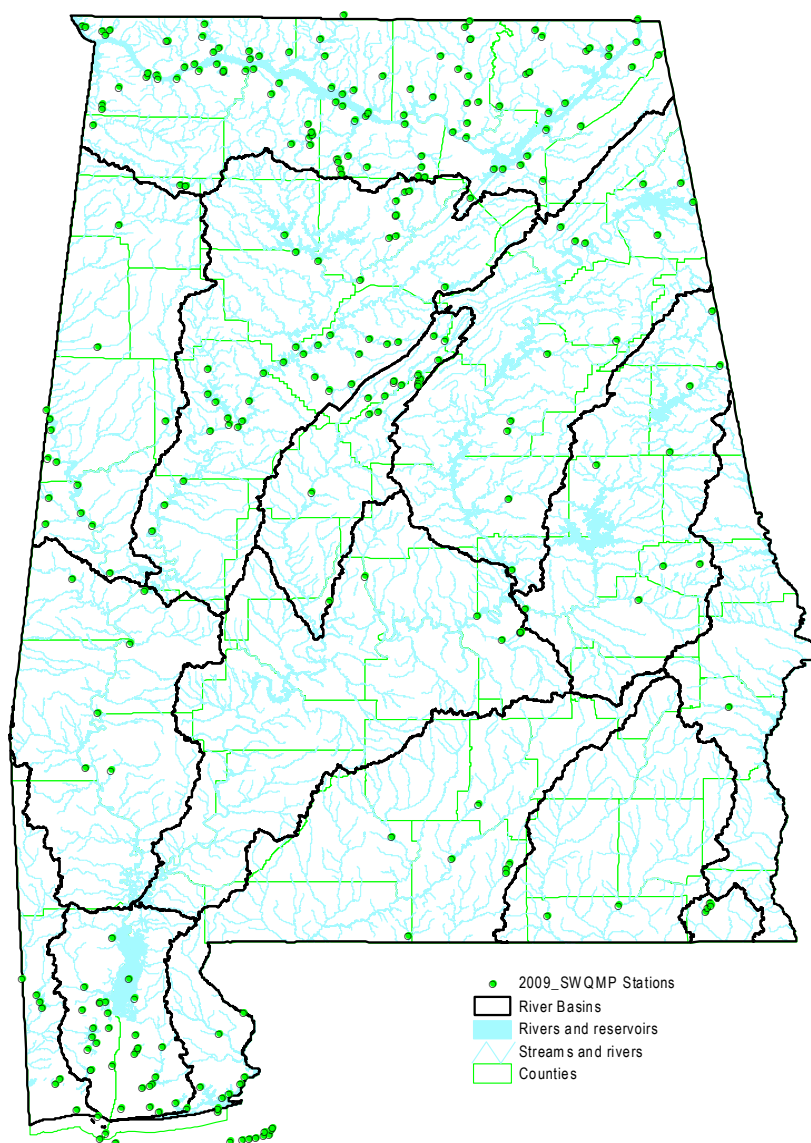


After construction, but before revegetation was completed, photos show a more sinuous stream with lower banks.



SUMMARY OF 2009 MONITORING

Alabama's-FY09 Surface Water Quality Monitoring Plan (SWQMP) followed a general sampling plan to provide data to support nutrient criteria, TMDL, and basin assessments. The strategy incorporated a combination of targeted, probabilistic, and long-term ambient monitoring stations to meet state monitoring goals and objectives. Specific protocols and methodologies were defined to ensure that monitoring activities provided the highest quality information and made the most efficient use of available resources. The 2009 sampling season included the monitoring of approximately 258 stations in 43 projects statewide. As the rotational sampling basin was the Tennessee River basin, the majority of the stations were in the northern part of the state.



Wherever possible, sampling requests and locations were combined into one sampling routine that met the objectives of all projects. This coordination ensured that we met the objectives of ADEM's Monitoring Strategy as efficiently as possible. Thirty locations were sampled for multiple programs.

The following table summarizes the number of stations sampled for each program during 2009 by project. The coordination among the different field offices and labs has increased the number of monitoring objectives ADEM has been able to meet with existing resources. The monitoring plan coordinated the sampling of 30-103 stations to meet multiple program objectives during the 5-year basin rotation. This coordination, as this table illustrates, also allows for cost sharing among multiple programs. The number in parentheses shows the number of stations funded by that program. The number without parentheses shows the number of stations that could be used for that program because of these coordination efforts.

Program	2009
NPS Intensive Watershed Survey	31
Reference	2
Basin Assessment	50 (48)
Reservoir Intensive	33
§303(d)/TMDL/Use Support	44 (30)
Ambient	95 (90)
Reservoir Compliance	16
Reservoir Critical	19
Fish Tissue Monitoring	50
Beach Monitoring	25
Total Stations	365 (344)

The following table summarizes the sampling conducted during 2009.

2009						
Water Quality	Intensive Fecals/Ent	72-hr DO	Bugs	Fish	Habitat	Periphyton
258	19	30	69	40	69	15

SAMPLING PROTOCOL

One of the key aspects of Alabama's Assessment and Listing Methodology is to define a given waterbody (as represented by the individual sampling station) as being either wadeable or nonwadeable. This is important because the monitoring, assessment and listing protocols vary accordingly.

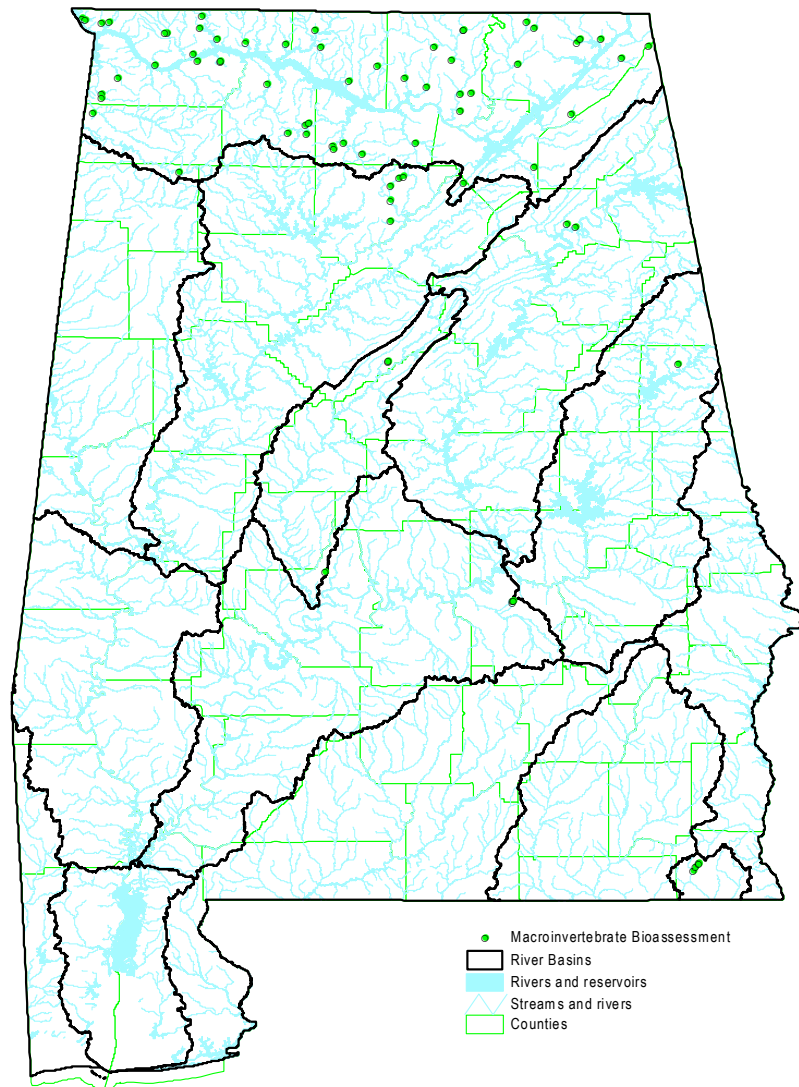
Certain rivers and streams can be wadeable or nonwadeable depending on the time of year and hydrologic conditions encountered at a station. A decision concerning site-classification was made using site reconnaissance and best professional judgment (BPJ) for each individual station. Once defined as wadeable or nonwadeable, a station was sampled using the same protocol every time.

HABITAT ASSESSMENTS

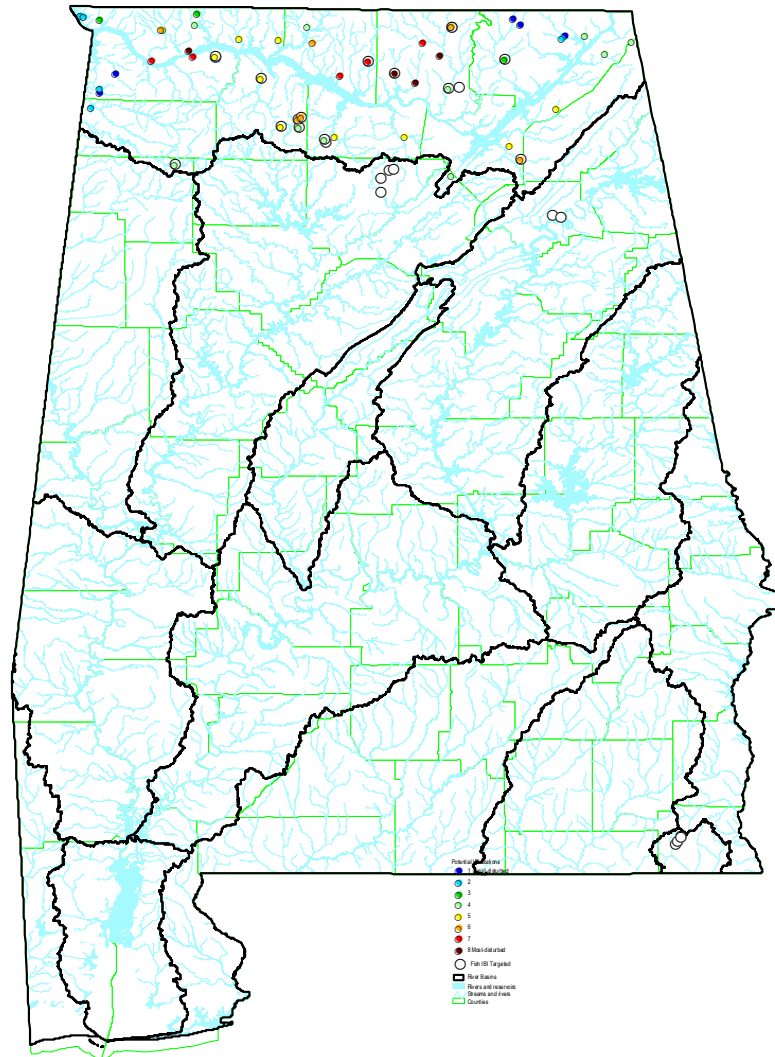
Habitat assessments were conducted during each bioassessment.

BUG, FISH, AND PERIPHYTON ASSESSMENTS

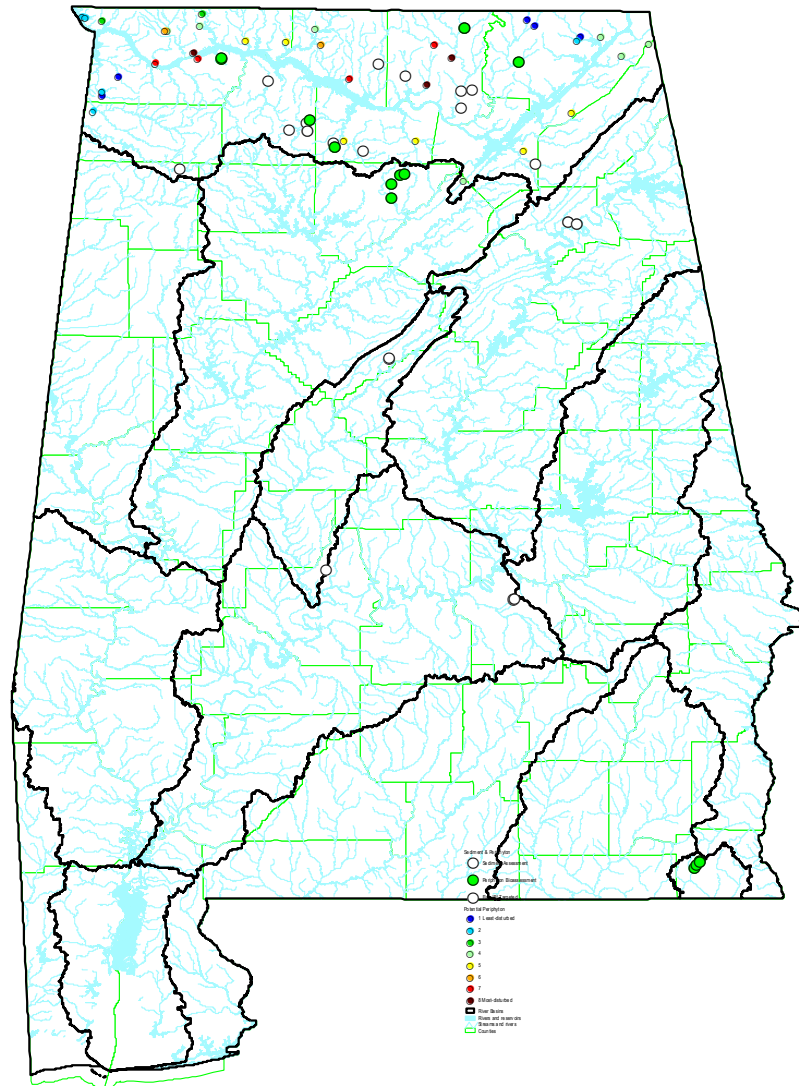
- During May/June, Intensive Aquatic Macroinvertebrate assessments, field parameters, flows and Habitat/Physical Characterizations were conducted at all of the primary basin stations.



- Fish IBI assessments, field parameters, flows, and a Habitat/Physical Characterizations were conducted at other select stations during Fall, 2009. The 40 assessments conducted represented gradients in watershed conditions.



- Periphyton assessments and diatom collections were conducted during late Summer, 2009, at select stations. Both were sampled during the same station visit. The diatoms were collected using Florida's Periphyton Bioassessment Method. The 20 station visits that were conducted represent gradients in watershed conditions.



- At the conclusion of the 2009 sampling season, ADEM completed a round of its five-year basin rotation study. During that time, field crews sampled 2,324 stations for 262 multiple projects.

