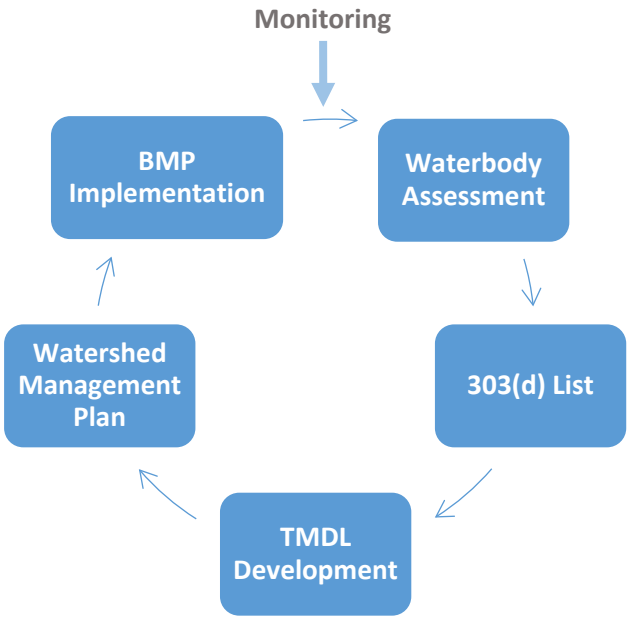
## ADEM Surface Water Monitoring and Assessments Strategy

Between 1996 and 2014, ADEM's overall strategy was implemented on a five-year rotation by basin, and incorporated a combination of targeted, probabilistic, and long-term monitoring stations to meet state monitoring goals and objectives. Concentrating monitoring in one basin group enabled ADEM to identify opportunities to meet multiple monitoring objectives at a single site, increasing overall efficiency. It also created a comprehensive dataset to develop the criteria and indicators needed to meet other objectives. (ADEM 2005, ADEM 2012)

Progress made during the last ten years, as well as changes to EPA's program priorities, now allow ADEM to conduct monitoring within each basin each year, while continuing to meet monitoring goals over a five-year period. This change supports more frequent, intensive monitoring within each basin group to more accurately measure trends in water quality before and after implementation of restoration efforts, respond to data needs more quickly, and to minimize the impact of weather-related events on data collected within any one basin. The strategy also provides level loading for ADEM's labs and field offices, making better use of ADEM's available resources.




In 2015, a prioritization framework was developed to prioritize monitoring to meet program priorities within each basin group. Priorities identified included monitoring impaired, unimpaired, and unassessed waters; evaluating the effectiveness of restoration efforts; and collaborating with partner agencies and stakeholders when possible. Monitoring conducted within each basin group is planned and coordinated annually by ADEM's basin teams.

The Basin Teams were developed to improve communication among project managers, field staff, and ADEM management within Field Operations, the Water Quality Branch, and the Nonpoint Source Unit. Participation provides opportunities for Team members to become familiar with data needs and issues within their basin. Responsibilities of each Basin Team includes development of the annual basin plan, tracking and documenting State Water Quality Monitoring Plan decisions and revisions, basin team status summaries, data requests and reviews, and review of final reports.

A detailed description of the 2015 Rivers and Streams Monitoring Program (RSMP) is included in ADEM 2017.

## 2016 Project #2: Wadeable and Non-wadeable Streams and Rivers Assessments

In 2016, ADEM's RSMP was awarded a CWA §319 grant through ADEM's Nonpoint Source Unit. All project milestones were completed using the 2015 Monitoring Strategy, the 2016 Surface Water QAPP (ADEM 2016a), associated SOPs, and the 2016 annual Surface Water Quality Monitoring Plan (ADEM 2016b) (Table 1). The purpose of this document is to summarize the use and reporting of data collected as part of the 2016 RSMP CWA §319 Project.

Seventy-two monitoring locations on wadeable and non-wadeable flowing streams and rivers were sampled using FY2016 CWA §319 funds (Table 2a). Located in 66 12-digit hydrologic unit codes (HUCs) and 67 assessment units (AUs), Table 2a also lists the restoration and protection priorities of ADEM's surface water quality programs, as well as priorities of other state and federal agencies, and watershed stakeholders. Table 2b lists the 2016 AU, HUC, use class, category, size, and upstream/downstream descriptions. This information reflects AU categories and information published in the 2016 Integrated Water Quality Monitoring and Assessment Report (IWQMAR; http://www.adem.alabama.gov/programs/water/waterforms/2016AL-IWQMAR.pdf).

All sampling was conducted in accordance with the 2016 SWQMP (ADEM 2016b). At two impaired waters, only intensive water quality samples were collected. At four Category 2 and 3 waters, intensive water quality samples and E. coli geomean studies were conducted. At all other CWA §319 stations, macroinvertebrate or fish assessments were conducted once at each station in May through early July. Habitat assessments were conducted at all sites during the biological assessment. In situ measurements (stream flow, dissolved oxygen, pH, conductivity, and turbidity) and water quality samples were collected monthly (including nutrients, water-column chlorophyll a, total dissolved solids, total suspended solids, and *E. coli*), semi-monthly (total and dissolved metals), or quarterly (pesticides, semi-volatiles, and atrazine), March through October, to help identify any stressors to biological communities.

Assessment unit categories for the 2018 and 2020, reflecting assessments completed using the 2016 data, are provided in Table 2b. This information is also available on ADEM's website (http://www.adem.alabama.gov/programs/water/waterforms/2018AL-IWQMAR.pdf; http://www.adem.alabama.gov/programs/water/waterforms/2020AL-IWQMAR.pdf).

Twenty-two historical and candidate ecoregional reference reaches were sampled as part of this project. Sites were selected to provide data in ecoregions with limited data, or to provide the basis of comparison to assess the 2016 study streams, including three reference stations to monitor post-TMDL condition on the Cahaba River (http://adem.alabama.gov/programs/water/wqsurvey/table/2016/2016CahabaRiver.pdf). Data from these candidate reference stations was thoroughly reviewed as incomplete (I), verified (V), or rejected (R) (Table 2a). Data from verified ecoregional reference reaches will be used to update ADEM's ecoregional guidelines during the 2020 Monitoring Strategy cycle. In addition to the Cahaba River, post-TMDL monitoring was also conducted on Little Paint Rock River (Table 2a). All ADEM TMDLs approved by the USEPA can be found at: http://adem.alabama.gov/programs/water/approvedTMDLs.htm

Use Support Assessment (USA) monitoring was conducted on forty-two Category 2 and 3 stream segments to fully assess each assessment unit. Five newly monitored waters were also assigned assessment units and assessed. Of these 47 stations, nine were assessed as fully supporting their use classifications, and 18 stations were located on assessment units assessed as impaired. (Table 2b). The causes, sources and justification for listing these waters are provided in Table 3. They can also be found on ADEM's website:

http://www.adem.alabama.gov/programs/water/wquality/2018AL303dFactSheet.pdf;
http://www.adem.alabama.gov/programs/water/wquality/2020AL303dFactSheet.pdf).

The 2016 data did not meet Alabama's assessment and listing methodology minimum data requirements to fully assess 20 of the 47 Category 2 and 3 waters, but did provide data that will contribute to future assessments (Table 2b).

The 2015 Monitoring Strategy identified collaborating with agency partners and stakeholder groups to meet common goals as an overarching goal to improve ADEM water quality programs (ADEM 2017). Seven stations in six different 12-digit HUCs were monitored for ADEM's nonpoint source program to document conditions prior to the implementation of best management practices using 2016 CWA §319 funds; pre-BMP conditions were monitored for the NPS program at an additional seven stations using other funding sources. Two stations were monitored as part of EPA and NRCS National Water Quality

Initiative Project watershed; 2016 represents the 3rd year of a 7-year post-BMP monitoring project. Eight priority HUCs identified by the Clean Water Partnership (CWP) in 2013 were also monitored. The ADEM conducted intensive monitoring at four locations where Alabama Water Watch data indicated a high potential for impairment. Twenty-eight sites were located within eight Strategic Habitat Units (SHUs), watersheds identified by the USFWS as critical habitat for threatened and endangered species (http://alh2o.org/shus/). Table 2a

An important objective of ADEM's Monitoring Strategy is the identification and documentation of high quality waters throughout the state. In addition to documenting and protecting current conditions, ADEM also monitors these locations to establish reference conditions for comparison to all study stations. Survey results from 16 stations indicated high quality biological conditions (Table 4). Monitoring summary reports for nine of these waterbodies that surpass current water quality standards for their *Fish & Wildlife* use classification are located at: http://www.adem.alabama.gov/programs/water/wqsurvey.cnt.

## CITATIONS


ADEM. 2005. State of Alabama Water Quality Monitoring Strategy. Alabama Department of Environmental Management. July 17, 2005. Montgomery, Alabama. 239 pp.

ADEM. 2012. State of Alabama Water Quality Monitoring Strategy. Alabama Department of Environmental Management. June 19, 2012. Montgomery, Alabama. 91 pp.

ADEM 2016a. Alabama Department of Environmental Management Quality Assurance Program Plan for Surface Water Quality Monitoring in Alabama. Revision 1.1. Montgomery, Alabama. 79 pp.

ADEM 2016b. ADEM's 2016 Annual Surface Water Quality Monitoring Plan. Alabama Department of Environmental Management. February 29, 2016. Montgomery, Alabama. 456 pp

ADEM. 2017. State of Alabama Water Quality Monitoring Strategy. Alabama Department of Environmental Management. January, 2017. Montgomery, Alabama. 108 pp.

**Table 1**. Milestones of the 2016 CWA §319 grant, project #2 (streams and rivers) to ensure that implementation of the project was timely and reasonable.

| Activity | Timeline | Responsible Entity | Implementation |
|---|---|---|---|
| **Milestone 1**: The 2016 River Basin Projects reviewed and revised in Arcview<br>Output 1: Tracking system for 2016 data updated<br>Outcome 1: Data needs for wadeable flowing reaches prioritized | Aug-Oct 2015 | ADEM-FOD | 100% Complete |
| **Milestone 2**: Site Reconnaissance conducted<br>Output 2: Enter recon data into ALAWADR database<br>Outcome 2-a: Data is assessed and final monitoring sites selected<br>Outcome 2-b: Basin wide, subwatershed, and other priority monitoring area maps generated | Oct-Nov 2015 | ADEM-FOD | 100% Complete |
| **Milestone 3**: Reference, ambient, and probabilistic sites provide water quality gradient conditions<br>Output 3: Surface water monitoring sites selected to meet the goals of a mix of project priorities and programs<br>Outcome3-a: Monitoring sites delineated<br>Outcome 3-b: ADEM's Surface Water Program Prioritization Framework calculated based on 2011 landuse and other factors | Oct 2015-Jan 2016 | ADEM-FOD | 100% Complete |
| **Milestone 4**: Selected site monitored<br>Output 4: Water quality and other ecologically significant data are collected<br>Outcome 4-a: Macroinvertebrate survey conducted<br>Outcome 4-c: Fish community survey conducted | Mar-Oct 2016 | ADEM-FOD | 100% Complete |
| **Milestone 5**: Process biological samples<br>Output 5: Macroinvertebrate and fish samples identified<br>Outcome 5-a: Biological data entered into the ORACLE database | May 2016-Apr 2017 | ADEM-FOD | 100% Complete |
| **Milestone 6**: Monitoring data analyzed<br>Output 6: Record data for tracking, review, and analyses<br>Outcome 6-a: Data reviewed for quality assurance /control | Mar 2016-Apr 2017 | ADEM-FOD | 100% Complete |
| **Milestone 7**: Completion of monitoring summary reports<br>Output 7: Facilitate the completion of the Integrated Report<br>Outcome 7-a: A summary report of the sub-watersheds monitored as part of the project is completed | Apr 2017-Dec 2017 | ADEM-FOD | 100% Complete |
| **Milestone 8**: Data is submitted to EPA WQX database<br>Output 8: Facilitate the development GIS maps , data tables and summaries, etc, as applicable<br>Outcome 8-a: Data is made available to the public and private sectors | Mar 2016-Nov 2017 | ADEM-FOD | 100% Complete |

**Table 2a**. Description of stations sampled as part of the 2016 CWA §319 grant, project #2 (streams and rivers). Protection and restoration priorities, reference status, and indicators used to assess the site are also provided. Habitat and biological ratings are also provided.

| Station | Stream | County | ECO | Area ($mi^2$) | Description | HUC | Assessment Unit | Latitude | Longitude | Protection/Restoration Priorities | | | | | | Ref | Geo-mean | Habitat | Biological Conditions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | SHU | NPS | NWQI/ SWCD | CWP | AWW | TMDL | | | | Macro-invertebrates | Fish |
| **Alabama** | | | | | | | | | | | | | | | | | | | | |
| BARD-1 | Bear Ck | Dallas | 65A | 27.45 | Bear Ck at Dallas Co Rd 21. | 031502030108 | AL03150203-0108-110 | 32.28938 | -87.30493 | 26 | | | | | | | | Sub-optimal | Fair | |
| PNTM-7 | Pintlala Ck | Montgomery | 65A | 70.21 | Pintlala Ck at Old Hayneville Rd. | 031502010404 | AL03150201-0404-100 | 32.17548 | -86.34467 | | | | X | | | | | Marginal-sub-optimal | Fair-poor | |
| SPD-1 | Soapstone Ck | Dallas | 65B | 20.89 | Soapstone Ck at US 80 east of Selma | 031502011203 | AL03150201-1203-100 | 32.32220 | -86.90630 | | | | | | | V | | Sub-optimal | Fair | |
| **Black Warrior** | | | | | | | | | | | | | | | | | | | | |
| BLAW-7 | Blackwater Ck | Walker | 68F | 181.96 | Blackwater Ck at AL Hwy 257 | 031601090309 | AL03160109-0309-100 | 33.90833 | -87.25694 | | | | | | | | | Sub-optimal | Fair-good | |
| BLVC-1 | Blevens Ck | Cullman | 68D | 9.13 | Blevens Ck at Cullman Co. Rd 1059 | 031601100401 | AL03160110-0401-100 | 34.26740 | -87.07760 | | | | | | | | | Sub-optimal | Good | |
| BPRH-44B | Big Prairie Ck | Perry | 65A | 30.3 | B. Prairie Ck at Perry Co. Rd 20 | 031601130703 | AL03160113-0708-100 | 32.58276 | -87.52100 | | | | | | | | | Marginal | Fair-poor | |
| BPRH-44C | Big Prairie Ck | Hale | 65A | 59.35 | Big Prairie Ck at Co. Rd. 10 | 031601130703 | AL03160113-0708-100 | 32.56380 | -87.56066 | | | | | | | | | Marginal | Fair | |
| [R] BRSL-3 | Brushy Ck | Lawrence | 68E | 8.9 | Brushy Ck upstream of North Loop of Co Rd 73 (east of Co Rd 70), in Bankhead National Forest | 031601100201 | AL03160110-0203-103 | 34.33070 | -87.28620 | 22 | | | | | | V | | Sub-optimal | Excellent-good | Good |
| PANC-2 | Pan Ck | Cullman | 68D | 7.59 | Pan Ck at Cullman Co Rd 1736 | 031601090109 | AL03160109-0109-900 | 34.19313 | -86.59006 | | | | | | | | | Marginal | Good-fair | |
| SF-1 | Sipsey Fk | Winston | 68E | 89.19 | Sipsey Fork at Winston Co. Rd. 60 (Co. Rd.anal Rd.) | 031601100103 | AL03160110-0104-103 | 34.28558 | -87.39906 | 22 | | | | | | R | | Sub-optimal | Good-excellent | Good |
| TRKJ-2A | Turkey Ck | Jefferson | 68F | 32.72 | Turkey Ck at Jefferson Co Rd 131 (Morris-Majestic Rd). | 031601110306 | AL03160111-0307-100 | 33.72924 | -86.73975 | 23 | | | | | | | | Sub-optimal | | Good |
| TRKJ-3 | Turkey Ck | Jefferson | 68F | 26.71 | Turkey Ck at Preserve Park rapids | 031601110306 | AL03160111-0307-100 | 33.70248 | -86.69717 | 23 | | | | | | | | Optimal | | Poor |
| **Blackwater** | | | | | | | | | | | | | | | | | | | | |
| BEHE-1 | Bear Head Ck | Escambia | 65F | 4.09 | Bear Head Ck at Conecuh National Forest Rd (FR311D) | 031401040103 | AL03140104-0103-500 | 31.11202 | -86.71293 | | | | | | | | | Sub-optimal | Good-fair | |
| [R] BRE-1 | Bear Ck | Escambia | 65F | 28.21 | Bear Ck on dirt trail off Escambia Co Rd 51, approximately 0.7 miles upstream of confluence with Blackwater R. (off old Ranch Rd) | 031401040103 | AL03140104-0103-100 | 31.03334 | -86.70961 | | | | | | | V | | Sub-optimal | Excellent-good | |
| **Cahaba** | | | | | | | | | | | | | | | | | | | | |
| [R] CAFC-2 | Caffee Ck | Bibb | 67H | 41.13 | Caffee Ck at end of River Trace Rd | 031502040206 | AL03150202-0406-100 | 33.07704 | -87.07275 | | | | | | | | | Optimal | | Good |
| DRYS-1 | Dry Bk | Shelby | 67H | 6.18 | Dry Brook at Rockford Rd off Co. Rd. 365 | 031502020202 | AL03150202-0202-200 | 33.33867 | -86.76156 | 27 | | | | | | | | Sub-optimal | | Poor |
| SCZB-3 | Schultz Ck | Bibb | 65I | 16.98 | Schultz Ck at Vernon Town Rd. in Bibb Co. | 031502020502 | AL03150202-0502-100 | 33.03590 | -87.19599 | 27 | | | | | | | | Optimal | | Good |
| **Chattahoochee** | | | | | | | | | | | | | | | | | | | | |
| CHWB-1 | Chewalla Ck | Barbour | 65D | 15.46 | Chewalla Ck at Frost Marlow Rd | 031300031301 | AL03130003-1301-100 | 31.93803 | -85.17801 | | | | X | | | | | Marginal-sub-optimal | Fair | |
| MOOC-3 | Moores Ck | Chambers | 45B | 17.84 | Moores Ck at AL Hwy 29 | 031300020907 | AL03130002-0907-100 | 32.81521 | -85.17129 | | Pre-BMP | | | | | | | Poor | Poor-fair | |
| **Choctawhatchee** | | | | | | | | | | | | | | | | | | | | |
| BERD-1 | Bear Ck | Dale | 65D | 22.97 | Bear Ck at State Hwy 27 | 031402010701 | AL03140201-0701-300 | 31.44496 | -85.70336 | | | | | | | | | Marginal | Good-fair | |
| CLBD-2 | Claybank Ck | Dale | 65D | 35.61 | Claybank Ck at State Hwy 27 | 031402010702 | AL03140201-0702-100 | 31.44239 | -85.71037 | | | | | | | | | Marginal | Fair | |
| DOWG-2 | Dowling Br | Geneva | 65G | 2.4 | Dowling Br approx 0.2 miles upstream of lagoon bridge in free-flow portion of stream. NW1/4, Sec 30, T2N, R24E. | 031402011004 | AL03140201-1004-600 | 31.12047 | -85.68884 | 48 | | Post-BMP; 2008; 2014 | X | Low DO | | | | | | |
| DOWG-3 | Dowling Br | Geneva | 65G | 3.3 | Dowling Br at Geneva Co Rd 61 | 031402011004 | AL03140201-1004-600 | 31.12847 | -85.69624 | 48 | | Post-BMP; 2014 | X | Low DO | | | | | | |
| LICB-1 | Little Indian Ck | Bullock | 65D | 16.58 | L. Indian Ck at Bullock Co Rd 61 | 031402020203 | AL03140202-0203-110 | 32.01560 | -85.63617 | 47 | | | | | | | | Marginal | | Poor |
| LTCD-1 | Little Claybank Ck | Dale | 65D | 10.17 | Little Claybank Ck at Bill Deloney Rd | 031402010701 | AL03140201-0701-101 | 31.43965 | -85.69406 | | | | | | | | | Marginal | | Fair-poor |
| PLBG-1 | Pine Log Br | Geneva | 65G | 3.2 | Pine Log Br. at Union Hill Rd. | 031402011001 | AL03140201-1001-300 | 31.07167 | -85.61958 | | | | | | | | | Sub-optimal | Poor | |
| **Coosa** | | | | | | | | | | | | | | | | | | | | |

**Table 2a**. Description of stations sampled as part of the 2016 CWA §319 grant, project #2 (streams and rivers). Protection and restoration priorities, reference status, and indicators used to assess the site are also provided. Habitat and biological ratings are also provided.

| Station | Stream | County | ECO | Area ($mi^2$) | Description | HUC | Assessment Unit | Latitude | Longitude | Protection/Restoration Priorities | | | | | | Ref | Geo-mean | Habitat | Biological Conditions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | SHU | NPS | NWQI/ SWCD | CWP | AWW | TMDL | | | | Macro-invertebrates | Fish |
| BEVS-3 | Beaver Ck | St Clair | 67F | 21.96 | Beaver Ck at 365 feet from St. Clair Co. Rd. 26 | 031501060307 | AL03150106-0307-100 | 33.79578 | -86.24016 | | | | | | | | | Marginal | Fair-good | |
| CNCC-1 | Cane Ck | Calhoun | 67F | 26.49 | Cane Ck at US Hwy 431 | 031501060407 | AL03150106-0408-100 | 33.73579 | -85.88108 | | | | | | | | | Sub-optimal | Fair-poor | |
| CORC-1 | Coosa R | Cherokee | 67G | 5279.8 | Coosa R. ~ 4 miles below Weiss Flood Gates at bridge on Co. Rd. 20 at WWTP | 031501051003 | AL03150105-1003-202 | 34.13947 | -85.68692 | 37 | | | | | | | | | | |
| [R] DRYC-2 | Dry Ck | Calhoun | 67H | 5.1 | Dry Ck at Calhoun Co Rd 55 (Rabbittown Rd.) in Talladega National Forest near Burns | 031501060502 | AL03150106-0502-700 | 33.84240 | -85.59422 | | | | | | | V | | Optimal | Excellent | |
| [R] HAT-2 | Hatchet Ck | Coosa | 45A | 132.43 | Hatchet Ck at Dunham Property | 031501070706 | AL03150107-0709-100 | 32.99980 | -86.14250 | 29 | | | | | Post-TMDL (Ref) | V | | Sub-optimal | Good-fair | Fair |
| [R] HAT-3 | Hatchet Ck | Clay | 45A | 59.51 | Hatchet Ck at East Mill (Co. Rd. 4) | 031501070702 | AL03150107-0706-102 | 33.13045 | -86.05469 | 29 | | | | | Post-TMDL (Ref) | V | | Sub-optimal | Good-fair | Good |
| [R] HATC-4 | Hatchet Ck | Coosa | 45A | 237.04 | Hatchet Ck approx. 4 mi us of Coosa Ck 18 at the McConnell Property | 031501070708 | AL03150107-0709-100 | 32.94392 | -86.23579 | 29 | | | | | Post-TMDL (Ref) | V | | Sub-optimal | | Good |
| KYC-1 | Kelly Ck | Shelby | 67F | 193.94 | Kelly Ck at US Hwy 231. | 031501060808 | AL03150106-0808-100 | 33.44743 | -86.38692 | 32 | | | | | | | | Sub-optimal | | Fair |
| KYC-2 | Kelly Ck | St Clair | 67G | 86.46 | Kelly Ck at Shelby Co. Rd. 27. | 031501060807 | AL03150106-0808-100 | 33.50242 | -86.44304 | 32 | | | | | | | | Marginal-sub-optimal | | Fair |
| QFMC-1 | Fourmile Ck | Elmore | 65I | 9.79 | Fourmile Ck upstream of AL Hwy 9 NE of Wetumpka | 31501070907 | AL03150107-0907-500 | 32.58389 | -86.17394 | 28 | | | X | | | | | Marginal | Fair | |
| [R] SHLC-3 | Shoal Ck | Cleburne | 45D | 17.9 | Shoal Ck at Forest Service Rd 500, in Talladega National Forest | 031501060501 | AL03150106-0501-105 | 33.72529 | -85.60115 | 35 | | | | | | V | | Sub-optimal-optimal | Excellent | |
| UCHC-3 | Unnamed tributary to Choccolocco Ck | Calhoun | 67F | 23.06 | Unnamed trib to Choccolocco Ck at 425 feet from US Hwy 78 | 031501060506 | AL03150106-0506-100 | 33.59502 | -85.92170 | | | | | | | | | Marginal-sub-optimal | Fair | |
| WEET-2 | Weewoka Ck | Talladega | 67F | 22.36 | Weewoka Ck at SR 21 | 031501070103 | AL03150107-0203-100 | 33.31649 | -86.19627 | | | | | | | | | Sub-optimal | Fair-good | |
| **Escambia** | | | | | | | | | | | | | | | | | | | | |
| MANP-1 | Mannings Ck | Pike | 65D | 39.29 | Mannings Ck at Pike Co Rd 7718 (second bridge) | 031403010201 | AL03140301-0201-100 | 31.93409 | -85.95741 | | | | X | | | R | | Marginal | Fair | |
| **Escatawpa** | | | | | | | | | | | | | | | | | | | | |
| CLNM-1 | Collins Ck | Mobile | 65F | 8.4 | Collins Ck at Glenwood Rd., north of Fairview | 031700080502 | AL03170008-0502-800 | 30.81120 | -88.31580 | | Pre-BMP | | | | | | | Sub-optimal | Fair-good | |
| **Mobile** | | | | | | | | | | | | | | | | | | | | |
| AIKB-2 | Aiken Ck | Baldwin | 65F | 9.92 | Aiken Ck at AL Hwy 225 | 031602040201 | AL03160204-0201-200 | 30.98030 | -87.86774 | | | | | | | | | Marginal | Fair | |
| EMCM-1 | Eightmile Ck | Mobile | 75A | 32.98 | Eightmile Ck at Prichard Water Intake | 031602040304 | AL03160204-0304-102 | 30.76759 | -88.10138 | | | | | | | | | Marginal | Fair | |
| FLYB-96 | Fly Ck | Baldwin | 75A | 7.01 | Fly Ck at US Hwy 98 crossing. | 031602050205 | AL03160205-0205-702 | 30.55245 | -87.89166 | | | | | | | | | --- | --- | |
| GNNM-1 | Gunnison Ck | Mobile | 75I | 11.46 | Gunnison Ck at Radcliff Rd | 031602040401 | AL03160204-0401-100 | 30.89785 | -88.04787 | | | | | | | V | | Sub-optimal | Good-fair | |
| HLB-1 | Halls Ck | Baldwin | 65F | 19.58 | Halls Ck at AL. Hwy 59. North of Stockton just upstream of bridge | 031602040104 | AL03160204-0104-100 | 31.05264 | -87.83701 | | | | | | | V | | Sub-optimal-marginal | Fair | |
| STCM-2 | Steele Ck | Mobile | 75I | 3.14 | Steele Ck at Co. Rd. 43. | 031602040401 | AL03160204-0401-200 | 30.85977 | -88.05345 | | | | | | | | | Sub-optimal | Poor | |
| TURB-1 | Turkey Br | Baldwin | 75A | 5.79 | Turkey Branch at Baldwin Co. Rd. 181 | 031602050204 | AL03160205-0204-402 | 30.42191 | -87.84393 | | Pre-BMP | | | | | | | Sub-optimal | Very poor | Poor |
| **Tallapoosa** | | | | | | | | | | | | | | | | | | | | |
| [R] EMKT-14 | Emuckfaw Ck | Tallapoosa | 45A | 27.33 | Emuckfaw Ck at Bill Price Rd. | 031501090308 | AL03150109-0308-100 | 33.05530 | -85.69460 | | | | | | | V | | Sub-optimal | Good-excellent | |
| [R] HCR-1 | Hurricane Ck | Randolph | 45A | 13.73 | Hurricane Ck upstream of Co Rd 26 | 031501090106 | AL03150109-0106-400 | 33.17546 | -85.59829 | | | | | | | V | | Sub-optimal | Excellent | |
| HIPR-2 | High Pine Ck | Randolph | 45A | 5.15 | High Pine cat Randolph Co. Rd. 16 | 031501090301 | AL03150109-0301-104 | 33.20225 | -85.34297 | | | | X | | | | | Sub-optimal | Fair-good | |
| **Tennessee** | | | | | | | | | | | | | | | | | | | | |
| BCNJ-2 | Big Coon Ck | Jackson | 68C | 25.05 | B. Coon Ck at Jackson Co. Rd. 565. | 060300010305 | AL06030001-0305-100 | 34.88299 | -86.00769 | | | | | | | I | | --- | --- | |

**Table 2a**. Description of stations sampled as part of the 2016 CWA §319 grant, project #2 (streams and rivers). Protection and restoration priorities, reference status, and indicators used to assess the site are also provided. Habitat and biological ratings are also provided.

| Station | Stream | County | ECO | Area ($mi^2$) | Description | HUC | Assessment Unit | Latitude | Longitude | Protection/Restoration Priorities | | | | | | Ref | Geo-mean | Habitat | Biological Conditions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | SHU | NPS | NWQI/ SWCD | CWP | AWW | TMDL | | | | Macro-invertebrates | Fish |
| BRSB-2 | Browns Ck | Blount | 68B | 10.27 | Browns Ck at Nesmith Rd | 060300010904 | AL06030001-0904-102 | 34.22322 | -86.43794 | | | | | Low DO | | | | Poor-marginal | Fair-good | |
| [R] BTLL-1 | Butler Ck | Lauderdale | 71F | 60.2 | Butler Ck at Co Rd 302 | 060300050507 | AL06030005-0507-100 | 34.97376 | -87.61127 | 4 | | | | | | | | Optimal | | Excellent |
| BVDM-17 | Beaverdam Ck | Madison | 71G | 36.82 | Beaverdam Ck at Highway 431 Bridge | 060300020305 | AL06030002-0305-100 | 34.83770 | -86.57120 | 8 | 2013 | | X | | | | | Sub-optimal | Poor-fair | |
| CHLC-1 | Chandelower Ck | Colbert | 65J | 8.54 | Chandelower Ck at Sally Burns Rd | 060300060301 | AL06030005-0301-200 | -88.06238007 | 34.62736275 | 1 | Pre-BMP | | | | | | X | | | |
| CLER-1 | Clear Ck | Jackson | 71G | 17.91 | Clear Ck at Al Hwy 65 | 060300020203 | AL06030002-0201-100 | 34.71935 | -86.31083 | 9 | 1999 | | | | | | | Marginal | Fair-good | |
| COCJ-1 | Little Coon Ck | Jackson | 68B | 29.17 | L. Coon Ck at Jackson Co. Rd. 53. | 060300010306 | AL06030001-0306-100 | 34.87425 | -85.91075 | | | | | | | | | Marginal | Fair | |
| [R] CPSL-3 | Cypress Ck | Lauderdale | 71F | 190.4 | Cypress Ck at Alabama 133 (Cox Ck Pkwy) | 060300050605 | AL06030005-0605-102 | 34.83055 | -87.70418 | 3 | | | | | | | | Optimal | | Good |
| CSC-1 | Cross Ck | Dekalb | 68D | 30.37 | Cross Ck at Dekalb Co. Rd. 386. | 060300010801 | AL06030001-0801-100 | 34.23770 | -86.09740 | | | | | | | | | | Fair-good | |
| HURR-1 | Hurricane Ck | Jackson | 68C | 44.38 | Hurricane Ck just off Jackson Co. Rd. 9 | 060300020101 | AL06030002-0101-100 | 34.91799 | -86.13300 | 9 | 1999 | | | | | V | | Sub-optimal | Good-excellent | |
| INCL-1 | Indiancamp Ck | Lauderdale | 71F | 8.38 | Indiancamp Ck upstream of Lauderdale Co. Rd. 135 crossing at Indian Camp Festival Park North of Florence | 060300050509 | AL06030005-0509-800 | 34.92220 | -87.62080 | | | | | | | V | | Sub-optimal | Good | |
| [R] LBTL-1 | Little Butler Ck | Lauderdale | 71F | 8 | Little Butler Ck at Co Rd 61 | 060300050507 | AL06030005-0507-200 | 34.98226 | -87.61645 | 4 | | | | | | V | | Sub-optimal-optimal | | Excellent |
| [R] LPRK-1 | Little Paint Rock Ck | Marshall | 71G | 9.69 | Little Paint Rock Ck at Merrill Mountain Rd | 060300020204 | AL06030002-0204-302 | 34.48466 | -86.38623 | 9 | 1999 | | | Low DO | Post-TMDL | | | Marginal | | Fair |
| NLYW-1A | Neely Br | Lauderdale | 71G | 4.04 | Neely Br at the end of a dirt road, next to Joe Wheeler State Park | 060300021202 | AL06030002-1202-200 | -87.30107523 | 34.81634484 | | Pre-BMP | | | | | | X | | | |
| RCKC-2 | Rock Ck | Colbert | 65J | 35.54 | Rock Ck at Colbert Co. Rd. 7 (Sally Burns Rd) | 060300060301 | AL06030006-0304-500 | -88.06323 | 34.6093 | 1 | Pre-BMP | | | | | | X | | | |
| SINL-3 | Sinking Ck | Lawrence | 71J | 1.42 | Sinking Creek upstream of Co Rd. 290 where stream narrows and becomes wadeable | 060300050103 | AL06030005-0103-303 | 34.58983 | -87.27017 | | | | | | | | | --- | --- | |
| TLNF-9 | Tollison Ck | Franklin | 65J | 15.32 | Tollison Ck At unnamed Rd. Ckossing between Franklin Co Rd 41 and 73. Trib to Cedar Ck, 6 mi west of Russelville. | 060300060203 | AL06030006-0203-140 | 34.51671 | -87.84516 | 1 | | | | | | I | | Optimal | | Fair |
| **Tombigbee** | | | | | | | | | | | | | | | | | | | | |
| BLBP-1 | Blubber Ck | Pickens | 65I | 16.73 | Blubber Ck on AL Hwy 14 NW of Aliceville | 031601060506 | AL03160106-0506-110 | 33.14725 | -88.17053 | | Pre-BMP | | | | | | X | | | |
| BSCC-1 | Bashi Ck | Clarke | 65D | 76.74 | Bashi Ck at AL Hwy 69 | 031602010704 | AL03160201-0704-100 | 31.94484 | -87.98067 | | | | | | | | | Marginal | Fair-good | |
| BSHC-1 | Bashi Ck | Clarke | 65D | 22.11 | Bashi Ck at Clarke Co. Rd. 7 | 031602010704 | AL03160201-0704-100 | 31.95689 | -87.86939 | | | | | | | | | Marginal | Fair | |
| HORM-1 | Horse Ck | Marengo | 65D | 136.8 | AL Hwy 69 north of Putnam (NW1/4) | 031602010604 | AL03160201-0604-100 | 32.04403 | -88.03173 | | | | | | | | | Marginal | Good-fair | |

**Table 2b**. The 2016 assessment unit, use class, and 2016, 2018, and 2020 assessment category for each station sampled as part of the 2016 CWA §319 grant, project #2 (streams and rivers).

| Station | County | 12-digit HUC | Waterbody | Assessment Unit | Use Class | Size | Downstream | Upstream | Categories | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 2016 | 2018 | 2020 |
| **Alabama** | | | | | | | | | | | |
| BARD-1 | Dallas | 031502030108 | Bear Ck | AL03150203-0108-110 | F&W | 16.79 | Bogue Chitto Creek | Its source | 2a | 5 | 5 |
| PNTM-7 | Montgomery | 031502010404 | Pintlala Ck | AL03150201-0404-100 | S/F&W | 26.4 | Pinchony Creek | Its source | 4a | 4a | 4a |
| SPD-1 | Dallas | 031502011203 | Soapstone Ck | AL03150201-1203-100 | F&W | 17.52 | Alabama River | Its source | 1 | 1 | 1 |
| **Black Warrior** | | | | | | | | | | | |
| BLAW-7 | Walker | 031601090309 | Blackwater Ck | AL03160109-0309-100 | F&W | 70.05 | Mulberry Fork | Its source | 2a | 1 | 1 |
| BLVC-1 | Cullman | 031601100401 | Blevens Ck | AL03160110-0401-100 | F&W | 19.14 | Rock Creek | Its source | 5 | 5 | 5 |
| BPRH-44B | Perry | 031601130703 | Big Prairie Ck | AL03160113-0708-100 | F&W | 44.16 | Lake Demopolis | Its source | 2a | 5 | 5 |
| BPRH-44C | Hale | 031601130703 | Big Prairie Ck | AL03160113-0708-100 | F&W | 44.16 | Lake Demopolis | Its source | 2a | 5 | 5 |
| BRSL-3 | Lawrence | 031601100201 | Brushy Ck | AL03160110-0203-103 | F&W | 29.85 | US Highway 278 | Its source | 1 | 1 | 1 |
| PANC-2 | Cullman | 031601090109 | Pan Ck | AL03160109-0109-900 | F&W | 10.67 | Mulberry Fork | Its source | 2a | 2b | 2b |
| SF-1 | Winston | 031601100103 | Sipsey Fk | AL03160110-0104-103 | F&W | 21.23 | Sandy Creek | Its source | 1 | 1 | 1 |
| TRKJ-2A | Jefferson | 031601110306 | Turkey Ck | AL03160111-0307-100 | F&W | 25.34 | Locust Fork | Its source | 2a | 2b | 2b |
| TRKJ-3 | Jefferson | 031601110306 | Turkey Ck | AL03160111-0307-100 | F&W | 25.34 | Locust Fork | Its source | 2a | 2b | 2b |
| **Blackwater** | | | | | | | | | | | |
| BEHE-1 | Escambia | 031401040103 | Bear Head Ck | AL03140104-0103-500 | F&W | 4.63 | Bear Creek | Its source | 3 | 1 | 1 |
| BRE-1 | Escambia | 031401040103 | Bear Ck | AL03140104-0103-100 | F&W | 10.7 | Panther Creek | Its source | 1 | 1 | 1 |
| **Cahaba** | | | | | | | | | | | |
| CAFC-2 | Bibb | 031502040206 | Caffee Ck | AL03150202-0406-100 | F&W | 17.88 | Cahaba River | Its source | 2a | 1 | 1 |
| DRYS-1 | Shelby | 031502020202 | Dry Bk | AL03150202-0202-200 | F&W | 3.49 | Cahaba Valley Creek | Its source | 2a | 2a | 2a |
| SCZB-3 | Bibb | 031502020502 | Schultz Ck | AL03150202-0502-100 | S | 16.39 | Cahaba River | Its source | 3 | 2a | 2a |
| **Chattahoochee** | | | | | | | | | | | |
| CHWB-1 | Barbour | 031300031301 | Chewalla Ck | AL03130003-1301-100 | S/F&W | 13.5 | Walter F George Lake | Its source | 3 | 2a | 2a |
| MOOC-3 | Chambers | 031300020907 | Moores Ck | AL03130002-0907-100 | F&W | 11.4 | Chattahoochee River | Its source | 5 | 5 | 5 |
| **Choctawhatchee** | | | | | | | | | | | |
| BERD-1 | Dale | 031402010701 | Bear Ck | AL03140201-0701-300 | F&W | 12.37 | Little Claybank Creek | Its source | | 5 | 5 |
| CLBD-2 | Dale | 031402010702 | Claybank Ck | AL03140201-0702-100 | F&W | 11.64 | Lake Tholocco | Its source | 3 | 5 | 5 |
| DOWG-2 | Geneva | 031402011004 | Dowling Br | AL03140201-1004-600 | F&W | 2.1 | Cox Mill Creek | Its source | 5 | 5 | 5 |
| DOWG-3 | Geneva | 031402011004 | Dowling Br | AL03140201-1004-600 | F&W | 2.1 | Cox Mill Creek | Its source | 5 | 5 | 5 |
| LICB-1 | Bullock | 031402020203 | Little Indian Ck | AL03140202-0203-110 | F&W | 12.56 | Pea River | Its source | 3 | 2a | 2a |
| LTCD-1 | Dale | 031402010701 | Little Claybank Ck | AL03140201-0701-101 | F&W | 8.54 | Claybank Creek | Its source | 2a | 2a | 2a |
| PLBG-1 | Geneva | 031402011001 | Pine Log Branch | AL03140201-1001-300 | F&W | 4.09 | Hurricane Creek | Its source | | 5 | 5 |
| **Coosa** | | | | | | | | | | | |
| BEVS-3 | St Clair | 031501060307 | Beaver Ck | AL03150106-0307-100 | F&W | 26.58 | Neely Henry Lake | Its source | 2a | 1 | 1 |

**Table 2b**. The 2016 assessment unit, use class, and 2016, 2018, and 2020 assessment category for each station sampled as part of the 2016 CWA §319 grant, project #2 (streams and rivers).

| Station | County | 12-digit HUC | Waterbody | Assessment Unit | Use Class | Size | Downstream | Upstream | Categories | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 2016 | 2018 | 2020 |
| CNCC-1 | Calhoun | 031501060407 | Cane Ck | AL03150106-0408-100 | F&W | 30.68 | Logan Martin Lake | Its source | 2a | 5 | 5 |
| CORC-1 | Cherokee | 031501051003 | Coosa River | AL03150105-1003-202 | F&W | 14.34 | Sugar Creek | Weiss dam | 4c | 4c | 4c |
| DRYC-2 | Calhoun | 031501060502 | Dry Ck | AL03150106-0502-700 | F&W | 4.03 | Choccolocco Creek | Its source | 1 | 1 | 1 |
| HAT-2 | Coosa | 031501070706 | Hatchet Ck | AL03150107-0709-100 | OAW/S/ F&W | 35.47 | Mitchell Lake | Wildcat Creek | 1 | 1 | 1 |
| HAT-3 | Clay | 031501070702 | Hatchet Ck | AL03150107-0706-102 | OAW/PWS/ S/F&W | 35.47 | Wildcat Ck | Its source | 1 | 1 | 1 |
| HATC-4 | Coosa | 031501070708 | Hatchet Ck | AL03150107-0709-100 | OAW/S/ F&W | 35.47 | Mitchell Lake | Wildcat Creek | 1 | 1 | 1 |
| KYC-1 | Shelby | 031501060808 | Kelly Ck | AL03150106-0808-100 | S/F&W | 33.58 | Lay Lake | Its source | 3 | 5 | 5 |
| KYC-2 | St Clair | 031501060807 | Kelly Ck | AL03150106-0808-100 | S/F&W | 33.58 | Lay Lake | Its source | 3 | 5 | 5 |
| QFMC-1 | Elmore | 031501070907 | Fourmile Ck | AL03150107-0907-500 | F&W | 5.67 | Taylor Creek | Its source | 2a | 2a | 2a |
| SHLC-3 | Cleburne | 031501060501 | Shoal Ck | AL03150106-0501-105 | OAW/S /F&W | 6.31 | Highrock Lake | Sweetwater Lake dam | 1 | 1 | 1 |
| UCHC-3 | Calhoun | 031501060506 | UT to Choccolocco Ck | AL03150106-0506-100 | F&W | 10.39 | Choccolocco Creek | Its source | 3 | 1 | 1 |
| WEET-2 | Talladega | 031501070103 | Weewoka Ck | AL03150107-0203-100 | F&W | 18.32 | Tallaseehatchee Creek | Its source | 2a | 5 | 5 |
| **Escambia** | | | | | | | | | | | |
| MANP-1 | Pike | 031403010201 | Mannings Ck | AL03140301-0201-100 | F&W | 18.99 | Conecuh River | Its source | 2b | 2b | 2b |
| **Escatawpa** | | | | | | | | | | | |
| CLNM-1 | Mobile | 031700080502 | Collins Ck | AL03170008-0502-800 | F&W | 5.15 | Big Creek | Its Source | 5 | 5 | 5 |
| **Mobile** | | | | | | | | | | | |
| AIKB-2 | Baldwin | 031602040201 | Aiken Ck | AL03160204-0201-200 | F&W | 9.58 | Rains Creek | Its source | 2b | 2b | 2b |
| EMCM-1 | Mobile | 031602040304 | Eightmile Ck | AL03160204-0304-102 | PWS/F&W | 1.73 | City of Prichard's water supply intake | US Highway 45 | 3 | 2b | 2b |
| FLYB-96 | Baldwin | 031602050205 | Fly Ck | AL03160205-0205-702 | S/F&W | 3.32 | 10 feet above MSL | its source | 3 | 5 | 5 |
| GNNM-1 | Mobile | 031602040401 | Gunnison Ck | AL03160204-0401-100 | S/F&W | 7.62 | Bayou Sara | Its source | 1 | 1 | 1 |
| HLB-1 | Baldwin | 031602040104 | Halls Ck | AL03160204-0104-100 | F&W | 11.93 | Tensaw Lake | Its source | 1 | 1 | 1 |
| STCM-2 | Mobile | 031602040401 | Steele Ck | AL03160204-0401-200 | S/F&W | 3.45 | Gunnison Creek | Its source | 3 | 2b | 2b |
| TURB-1 | Baldwin | 031602050204 | Turkey Br | AL03160205-0204-402 | S/F&W | 5.16 | Baldwin County Road 181 | Its source | 2a | 5 | 5 |
| Tallapoosa | | | | | | | | | | | |
| EMKT-14 | Tallapoosa | 031501090308 | Emuckfaw Ck | AL03150109-0308-100 | F&W | 23.51 | Tallapoosa River | Its source | 1 | 5 | 5 |
| HCR-1 | Randolph | 031501090106 | Hurricane Ck | AL03150109-0106-400 | F&W | 11.67 | Tallapoosa River | Its source | 1 | 1 | 1 |
| HIPR-2 | Randolph | 031501090301 | High Pine Ck | AL03150109-0301-104 | PWS | 3.98 | High Pine Creek Lake #2 | High Pine Creek Lake #1 dam | 3 | 2a | 2a |
| **Tennessee** | | | | | | | | | | | |
| BCNJ-2 | Jackson | 060300010305 | Big Coon Ck | AL06030001-0305-100 | F&W | 12.64 | Coon Creek | Its source | 2a | 2a | 2a |
| BRSB-2 | Blount | 060300010904 | Browns Ck | AL06030001-0904-102 | F&W | 11.86 | Tennessee River (Lake Guntersville) | Its source | 5 | 5 | 5 |
| BTLL-1 | Lauderdale | 060300050507 | Butler Ck | AL06030005-0507-100 | F&W | 3.88 | Shoal Creek | Alabama-Tennessee state line | 3 | 1 | 1 |
| BVDM-17 | Madison | 060300020305 | Beaverdam Ck | AL06030002-0305-100 | F&W | 22.14 | Brier Fork | Its Source | 5 | 5 | 5 |
| CHLC-1 | Colbert | 060300060301 | Chandelower Ck | AL06030005-0301-200 | F&W | 5.95 | Rock Creek | Its source | 2a | 5 | 5 |
| CLER-1 | Jackson | 060300020203 | Clear Ck | AL06030002-0201-100 | F&W | 6.43 | Paint Rock River | Its source | 3 | 5 | 5 |

**Table 2b**. The 2016 assessment unit, use class, and 2016, 2018, and 2020 assessment category for each station sampled as part of the 2016 CWA §319 grant, project #2 (streams and rivers).

| Station | County | 12-digit HUC | Waterbody | Assessment Unit | Use Class | Size | Downstream | Upstream | Categories | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 2016 | 2018 | 2020 |
| COCJ-1 | Jackson | 060300010306 | Little Coon Ck | AL06030001-0306-100 | F&W | 16.3 | Coon Creek | Alabama-Tennessee state line | 5 | 5 | 5 |
| CPSL-3 | Lauderdale | 060300050605 | Cypress Ck | AL06030005-0605-102 | PWS/F&W | 1.94 | City of Florence Water Treatment Plant | Little Cypress Creek | 3 | 1 | 1 |
| CSC-1 | Dekalb | 060300010801 | Cross Ck | AL06030001-0801-100 | F&W | 7.53 | Short Creek | Its source | | 5 | 5 |
| HURR-1 | Jackson | 060300020101 | Hurricane Ck | AL06030002-0101-100 | OAW/F&W | 10.89 | Paint Rock River | Alabama-Tennessee state line | 1 | 1 | 1 |
| INCL-1 | Lauderdale | 060300050509 | Indiancamp Ck | AL06030005-0509-800 | F&W | 5.98 | Shoal Creek | Its source | 1 | 1 | 1 |
| LBTL-1 | Lauderdale | 060300050507 | Little Butler Ck | AL06030005-0507-200 | F&W | 4.04 | Butler Creek | Alabama-Tennessee state line | | 1 | 1 |
| LPRK-1 | Marshall | 060300020204 | Little Paint Rock Ck | AL06030002-0204-302 | F&W | 2.17 | Merril Road Bridge | Jeep trail crossing | 4a | 4a | 4a |
| NLYW-1A | Lauderdale | 060300021202 | Neely Br | AL06030002-1202-200 | F&W | 3.61 | First Creek | Its source | 2a | 5 | 5 |
| RCKC-2 | Colbert | 060300060301 | Rock Ck | AL06030006-0304-500 | F&W | 20.74 | Bear Creek | Its source | 2a | 5 | 5 |
| SINL-3 | Lawrence | 060300050103 | Sinking Ck | AL06030005-0103-303 | PWS/F&W | 2.09 | Sinking Creek Lake | Its source | 3 | 2a | 2a |
| TLNF-9 | Franklin | 060300060203 | Tollison Ck | AL06030006-0203-140 | F&W | 7.22 | Cedar Creek Lake | Its source | | 1 | 1 |
| **Tombigbee** | | | | | | | | | | | |
| BLBP-1 | Pickens | 031601060506 | Blubber Ck | AL03160106-0506-110 | F&W | 20.12 | Lubbub Creek | Its source | 2a | 2a | 2a |
| BSCC-1 | Clarke | 031602010703 | Bashi Ck | AL03160201-0703-100 | S/F&W | 26.57 | Tallahatta Creek | Its source | 3 | 3 | 3 |
| BSHC-1 | Clarke | 031602010704 | Bashi Ck | AL03160201-0704-100 | S/F&W | 33.94 | Coffeeville Lake | Its source | 3 | 3 | 3 |
| HORM-1 | Marengo | 031602010604 | Horse Ck | AL03160201-0604-100 | S/F&W | 44.52 | Coffeeville Lake | Its source | 3 | 3 | 3 |

**Table 3**. The causes, sources and justification for listing waters as impaired using data collected as part of the 2016 CWA §319 grant, project #2 (streams and rivers).

| Waterbody name | Station | County | 12-digit HUC | Assessment Unit | Use Class | Year Listed | Size (mi) | Downstream | Upstream | Pollutant | Source | Justification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Alabama** | | | | | | | | | | | | |
| Bear Creek | BARD-1 | Dallas | 031502030108 | AL03150203-0108-110 | F&W | 2018 | 16.79 | Bogue Chitto Creek | Its source | Pathogens (E.Coli) | Aquaculture, Pasture Grazing | Records at ADEM station BARD-1 from 2016 show that the E. coli criterion was exceeded in 2 out of 9 samples; ADEM 2016 |
| **Black Warrior** | | | | | | | | | | | | |
| Big Prairie Creek | BPRH-44B | Perry | 031601130703 | AL03160113-0708-100 | F&W | 2018 | 44.16 | Lake Demopolis | Its source | Pathogens (E.Coli) | Aquaculture, Intensive Animal Feeding Operations, Pasture Grazing | Records from 2016 at ADEM station BPRH- 44B show that the E. coli criterion was exceeded in 3 out of 8 samples and at ADEM station BPRH-44C in 2 out of 8 samples; ADEM 2016 |
| Big Prairie Creek | BPRH-44C | Hale | 031601130703 | AL03160113-0708-100 | F&W | 2018 | 44.16 | Lake Demopolis | Its source | Pathogens (E.Coli) | Aquaculture, Intensive Animal Feeding Operations, Pasture Grazing | Records from 2016 at ADEM station BPRH- 44B show that the E. coli criterion was exceeded in 3 out of 8 samples and at ADEM station BPRH-44C in 2 out of 8 samples; ADEM 2016 |
| **Chattahoochee** | | | | | | | | | | | | |
| Moores Creek | MOOC-3 | Chambers | 031300020907 | AL03130002-0907-100 | F&W | 2018 | 11.4 | Chattahoochee River | Its source | Pathogens (E.Coli) | Pasture Grazing, Urban Runoff/Storm Sewers | Records at ADEM station MOOC-3 from 2014 and 2016 show that the E. coli criterion was exceeded in 5 out of 16 samples; ADEM 2014, 2016 |
| **Choctawhatchee** | | | | | | | | | | | | |
| Bear Creek | BERD-1 | Dale | 031402010701 | AL03140201-0701-300 | F&W | 2018 | 12.37 | Little Claybank Creek | Its source | Pathogens (E.Coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station BERD-1 from 2016 show that the E. coli criterion was exceeded in 5 out of 8 samples; ADEM 2016 |
| Claybank Creek | CLBD-2 | Dale | 031402010702 | AL03140201-0702-100 | F&W | 2018 | 11.64 | Lake Tholocco | Its source | Pathogens (E.Coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station CLBD-2 from 2016 show that the E. coli criterion was exceeded in 5 out of 8 samples; ADEM 2016 |
| Pine Log Branch | PLBG-1 | Geneva | 031402011001 | AL03140201-1001-300 | F&W | 2018 | 4.09 | Hurricane Creek | Its source | Pathogens (E.Coli) | Pasture Grazing | Records at ADEM station PLBG-1 from 2016 show that the E. coli criterion was exceeded in 2 out of 8 samples; ADEM 2016 |
| **Coosa** | | | | | | | | | | | | |
| Cane Creek | CNCC-1 | Calhoun | 031501060407 | AL03150106-0408-100 | F&W | 2018 | 30.68 | Logan Martin Lake | Its source | Pathogens (E.Coli) | Collection System Failure, Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station CNCC-1 from 2016 show that the E. coli criterion was exceeded in 5 out of 8 samples; ADEM 2016 |
| Kelly Creek | KYC-1 | Shelby | 031501060808 | AL03150106-0808-100 | S/F&W | 2018 | 33.58 | Lay Lake | Its source | Pathogens (E.Coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station KYC-1 from 2016 show that the E. coli criterion was exceeded in 2 out of 8 samples; ADEM 2016 |
| Weewoka Creek | WEET-2 | Talladega | 031501070103 | AL03150107-0203-100 | F&W | 2018 | 18.32 | Tallaseehatchee Creek | Its source | Pathogens (E.Coli) | Pasture Grazing | Records from 2015-2016 at ADEM station WWOT-37 show that the E. coli criterion was exceeded in 2 out of 8 samples and at ADEM station WEET-2 in 2 out of 8 samples; ADEM 2015-2016 |
| **Mobile** | | | | | | | | | | | | |
| Fly Creek | FLYB-96 | Baldwin | 031602050205 | AL03160205-0205-702 | S/F&W | 2018 | 3.32 | 10 feet above MSL | its source | Pathogens (E.Coli) | Pasture Grazing | Records at ADEM station FLYB-96 from 2016 show that the E. coli criterion was exceeded in 2 out of 8 samples; ADEM 2016 |
| Halls Creek | HLB-1 | Baldwin | 031602040104 | AL03160204-0104-100 | F&W | 2020 | 11.93 | Tensaw Lake | Its source | Pathogens (E.Coli) | Pasture Grazing | Records at ADEM station HLB-1 from 2016-2017 show that the E. coli criterion was exceeded in 4 out of 16 samples; ADEM 2016-2017 |
| Turkey Br | TURB-1 | Baldwin | 031602050204 | AL03160205-0204-402 | S/F&W | 2018 | 5.16 | Baldwin County Road 181 | Its source | Pathogens (E. coli) | Pasture Grazing | Records at ADEM station TURB-1 from 2016 show that the E. coli criterion was exceeded in 5 out of 8 samples; ADEM 2016 |
| **Tallapoosa** | | | | | | | | | | | | |
| Emuckfaw Creek | EMKT-14 | Tallapoosa | 031501090308 | AL03150109-0308-100 | F&W | 2018 | 23.51 | Tallapoosa River | Its source | Pathogens (E.Coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station EMKT-14 from 2016 show that the E. coli criterion was exceeded in 2 out of 8 samples; ADEM 2016 |
| High Pine Ck | HIPR-2 | Randolph | 031501090301 | AL03150109-0301-104 | PWS | 2018 | 3.98 | High Pine Creek Lake #2 | High Pine Creek Lake #1 dam | Pathogens (E.Coli) | Pasture Grazing | Records at ADEM station HIPR-1 from 2016 show that the E. coli criterion was exceeded in 3 out of 8 samples; ADEM 2016 |
| **Tennessee** | | | | | | | | | | | | |
| Browns Creek | BRSB-2 | Blount | 060300010904 | AL06030001-0904-102 | F&W | 2018 | 11.86 | Tennessee River (Lake Guntersville) | Its source | Pathogens (E.Coli) | Pasture Grazing | Records at ADEM station BRSB-2 from 2016 show that the E. coli criterion was exceeded in 4 out of 8 samples; ADEM 2016 |
| Clear Creek | CLER-1 | Jackson | 060300020203 | AL06030002-0201-100 | F&W | 2018 | 6.43 | Paint Rock River | Its source | Pathogens (E.Coli) | Pasture Grazing | Records at ADEM station CLER-1 from 2013 and 2016 show that the E. coli criterion was exceeded in 4 out of 12 samples; ADEM 2013, 2016 |
| Cross Creek | CSC-1 | Dekalb | 060300010801 | AL06030001-0801-100 | F&W | 2018 | 7.53 | Short Creek | Its source | Pathogens (E.Coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station CSC-1 from 2015- 2016 show that the E. coli criterion was exceeded in 3 out of 11 samples; ADEM 2015-2016 |
| Indiancamp Creek | INCL-1 | Lauderdale | 060300050509 | AL06030005-0509-800 | F&W | 2020 | 5.98 | Shoal Creek | Its source | Pathogens (E.Coli) | On-Site Wastewater Systems (Septic Tanks, etc.), Pasture Grazing | Records at ADEM station INCL-1 from 2013 and 2016-2017 show that the E. coli criterion was exceeded in 8 out of 20 samples; ADEM 2013, 2016-2017 |
| Chandelower Ck | CHLC-1 | Colbert | 060300060301 | AL06030005-0301-200 | F&W | 2018 | 5.95 | Rock Creek | Its source | Pathogens (E. coli) | Pasture Grazing | Records at ADEM station CHLC-1 from 2013 and 2016 show that the E. coli criterion was exceeded in 4 out of 19 samples. The E. coli geomean criterion was also exceeded in 2016; ADEM 2013, 2016 |
| Neely Br | NLYW-1 | Lauderdale | 060300021202 | AL06030002-1202-200 | F&W | 2018 | 3.61 | First Creek | Its source | Pathogens (E. coli) | Pasture Grazing | Records at ADEM station NLYW-1A from 2016 show that the E. coli criterion was exceeded in 4 out of 13 samples. The E. coli geomean criterion was exceeded twice in 2016; ADEM 2016 |
| Rock Ck | RCKC-1 | Colbert | 060300060304 | AL06030006-0304-500 | F&W | 2018 | 20.74 | Bear Creek | Its source | Pathogens (E. coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records at ADEM station RCKC-1 from 2016 show that the geomean E. coli criterion was exceeded three times. |
| **Tombigbee** | | | | | | | | | | | | |
| Bashi Creek | BSCC-1 | Clarke | 031602010703 | AL03160201-0703-100 | S/F&W | 2020 | 26.57 | Tallahatta Creek | Its source | Pathogens (E.Coli) | Pasture Grazing | Records from 2016 at ADEM station BSCC-1 show that the E. coli criterion was exceeded in 4 out of 7 samples and at ADEM station BSHC-1 in 2 out of 7 samples; ADEM 2016 |
| Horse Creek | HORM-1 | Marengo | 031602010604 | AL03160201-0604-100 | S/F&W | 2018 | 44.52 | Coffeeville Lake | Its source | Pathogens (E.Coli) | Intensive Animal Feeding Operations, Pasture Grazing | Records from 2016 at ADEM station HORM-1 show that the E. coli criterion was exceeded in 2 out of 8 samples and at ADEM station HORM-2 in 3 out of 8 samples; ADEM 2016 |

**Table 4**. Waterbodies where biological surveys indicate aquatic communities in high quality condition.

| Station | Stream | County | ECO | Area ($mi^2$) | Description | HUC | Assessment Unit | Use Class | 2020 Category | Latitude | Longitude | SHU | Ref | Habitat | Biological Conditions | | Biological survey rating justification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Macro-invertebrates | Fish | |
| **Black Warrior** | | | | | | | | | | | | | | | | | |
| BLVC-1 | Blevens Ck | Cullman | 68D | 9.1 | Blevens Ck at Cullman Co. Rd 1059 | 031601100401 | AL03160110-0401-100 | F&W | 5 | ####### | -87.07760 | | | Sub-optimal | Good | | Blevens Creek at BLVC-1 a small *F&W* stream that flows through the forest and pasturelands of the southwestern Appalachians. Despite being listed as impaired for pathogens (E. coli) from animal feeding operations and pasture grazing, the macroinvertebrate survey indicated the community to be in *good* condition within this reach. However, there are evident changes in community structure due to loss of some rare, highly sensitive taxa, and shifts in relative abundance to ubiquitous, sensitive taxa, with 69 total taxa and 28 sensitive taxa collected. |
| R BRSL-3 | Brushy Ck | Lawrence | 68E | 8.9 | Brushy Ck upstream of North Loop of Co Rd 73 (east of Co Rd 70), in Bankhead National Forest | 031601100201 | AL03160110-0203-103 | F&W | 1 | ####### | -87.28620 | 22 | V | Sub-optimal | Excellent-good | Good | Brushy Creek at Lawrence County Road 73 is a *F&W* stream located within the Bankhead National Forest. According to the 2011 National Land Cover Dataset, the watershed is over 97% forested, with no permitted outfalls. It is sparsely populated, and contains few roads. A forest service road provides access to several recreational hiking trails and horseback riding trails in and near the watershed. It is located within the Upper Sipsey Fork SHU, supporting several federally listed threatened and endangered aquatic species that are also of High or Highest Conservation Concern to the state of Alabama. The macroinvertebrate community was rated as *excellent-good* , with 94 total taxa, 9 rare, highly sensitive taxa, and 34 ubiquitous sensitive taxa. Nearly half (46%) of the total taxa were highly sensitive or sensitive taxa. The 2016 fish survey showed the fish community to be in *good* conditions. Sixteen native species collected, which is very high taxa richness for a stream of this size. |
| SF-1 | Sipsey Fk | Winston | 68E | 89.2 | Sipsey Fork at Winston Co. Rd. 60 (Co. Rd.anal Rd.) | 031601100103 | AL03160110-0104-103 | F&W | 1 | ####### | -87.39906 | 22 | R | Sub-optimal | Good-excellent | Good | Sipsey Fork at Winston County Road 60 is located within the Bankhead National Forest. Considered a minimally disturbed area, it is recognized as a Wilderness Area by the United States Forest Service. Macroinvertebrate survey results indicate the macroinvertebrate community to be in *good-excellent* condition, with 69 total taxa, including 18 pollution-sensitive taxa and 9 highly sensitive taxa. Fish taxa richness was also high, with 19 species collected during the 2016 fish survey. Most of the species observed were darters and shiners associated with clean water quality. |
| TRKJ-2A | Turkey Ck | Jefferson | 68F | 32.7 | Turkey Ck at Jefferson Co Rd 131 (Morris-Majestic Rd). | 031601110306 | AL03160111-0307-100 | F&W | 2b | ####### | -86.73975 | 23 | | Sub-optimal | | Good | Located within the Locust Fork basin, the Turkey Creek watershed flows through forested and developed sections of Jefferson County, and is densely populated. Thirteen miles of Turkey Creek is designated critical habitat for the Vermilion Darter, which occupies clean bedrock riffles, characteristic of the Shale Hills ecoregion found in the Alabma Valley and Ridge province. Turkey Creek is part of the Locust Fork Strategic Habitat Unit (SHU), identified by the U.S. Fish & Wildlife Services and the Alabama Rivers & Streams Network (ARSN) as high–quality habitat occupied by federally listed and state imperiled species. ADEM sampled Turkey Creek at Jefferson County Road 131 in 2016 and found the biological rating to be *good*, and its habitat quality to be evaluated as *sub-optimal* . |
| **Blackwater** | | | | | | | | | | | | | | | | | |
| R BRE-1 | Bear Ck | Escambia | 65F | 28.2 | Bear Ck on dirt trail off Escambia Co Rd 51, approximately 0.7 miles upstream of confluence with Blackwater R. (off old Ranch Rd) | 031401040103 | AL03140104-0103-100 | F&W | 1 | ####### | -86.70961 | | V | Sub-optimal | Excellent-good | | Bear Creek is a *Fish & Wildlife (F&W)* stream located within the Conecuh National Forest in the Blackwater River basin. According to the 2011 National Land Cover Dataset, the watershed is 85% forested. This watershed is sparsely populated, and contains no permitted outfalls. The watershed has a very low road density, with only one small dirt road crossing approximately fives miles upstream of BRE-1. The condition of the macroinvertebrate community has been rated as excellent-good, with 56 total taxa. Eight of the total taxa are classified as rare and highly sensitive; twenty more commonly found taxa are also classified as sensitive. 25% of total organisms, and 35% of the total taxa collected were classified as senstive or highly sensitive. |
| **Cahaba** | | | | | | | | | | | | | | | | | |
| R CAFC-2 | Caffee Ck | Bibb | 67H | 41.1 | Caffee Ck at end of River Trace Rd | 031502040206 | AL03150202-0406-100 | F&W | 1 | ####### | -87.07275 | | | Optimal | | Good | Caffee Creek is a *F&W* stream located near West Blocton, Alabama. At CAFC-2, Caffee Creek flows into the Cahaba River, within the Cahaba River National Wildlife Refuge. Since 1998, this segment of the Cahaba River has been classified as an *OAW)/F&W,* in recognition of the tremendous diversity of natives fish, snails and mussels endemic to the river. The entire Cahaba River basin has been designated as critical habitat for 36 species identified as extirpated, threatened or of high conservation concern. Located in the the Southern Sandstone Ridges where large boulders and bedrock are found within the stream, habitat was classified as *optimal*, with an abundance of riffle habitat for aquatic organisms. The biological assessment conducted in 2016 evaluated the site as *good* , with an abundance of darter and madtom species thriving in the riffle-dominated reach. |
| SCZB-3 | Schultz Ck | Bibb | 65I | 17.0 | Schultz Ck at Vernon Town Rd. in Bibb Co. | 031502020502 | AL03150202-0502-100 | S | 2a | ####### | -87.19599 | 27 | | Optimal | | Good | The fish survey of Shultz Creek at Vernon Town Road in Bibb County was rated as *good* and having high quality habitat components for aquaitc species found there in 2016. Twenty-two species were collected in a 17 square mile drainage, demonstrating how biologcially diverse and significant Shultz Creek is to the Cahaba River SHU. Shultz Creek is locted in the Fall Line Hills ecoregion and the site is categorized as having an extensive riparian buffer and having optimal, in-stream habitat conditions for fish colonization. |
| **Coosa** | | | | | | | | | | | | | | | | | |
| R DRYC-2 | Dry Ck | Calhoun | 67H | 5.1 | Dry Ck at Calhoun Co Rd 55 (Rabbittown Rd.) in Talladega National Forest near Burns | 031501060502 | AL03150106-0502-700 | F&W | 1 | ####### | -85.59422 | | V | Optimal | Excellent | | Located within the Talladega National Forest, the watershed is of exceptional quality, containing no permitted outfalls and almost entirely forested. Several recreational hiking trails run through the area. Water quality conditions are very high, exhibiting low water temperatures, and low concentrations of sediment, nutrients, and metals. Macroinvertebrate diversity and taxa richness within the reach are among the highest sampled in the state. |
| R SHLC-3 | Shoal Ck | Cleburne | 45D | 17.9 | Shoal Ck at Forest Service Rd 500, in Talladega National Forest | 031501060501 | AL03150106-0501-105 | OAW/S/F&W | 1 | ####### | -85.60115 | 35 | V | Sub-optimal-optimal | Excellent | | A tributary of Choccolocco Creek, Shoal Creek is classified as an *OAW/S/F&W* stream located within the Talladega National Forest. Its *OAW* classification recognizes Shoal Creek's ecological and recreational significance to Alabama. As a SHU, the watershed maintains a geomorphically stable channel and a natural flow regime that support the behavior, growth, and survival of four federally listed endangered and threatened species, and seven species listed to be of the *Highest* or *High Conservation Concern* by the State of Alabama. The Shoal Creek watershed at SHLC-3 is 96% forested with no permitted outfalls. It is very sparsely populated. There are several recreational hiking trails and campgrounds in and near the watershed. There are few roads. The condition of the macroinvertebrate community was rated as *excellent* , identifying Shoal Creek at SHLC-3 as a level 2, or near natural, site. Taxa richness and diversity are exceptional, with 98 total taxa and 46 pollution-sensitive taxa collected at the site. Thirteen of the taxa are only found in the most pristine streams throughout Alabama and the southeast. |
| **Tallapoosa** | | | | | | | | | | | | | | | | | |
| R EMKT-14 | Emuckfaw Ck | Tallapoosa | 45A | 27.3 | Emuckfaw Ck at Bill Price Rd. | 031501090308 | AL03150109-0308-100 | F&W | 5 | ####### | -85.69460 | | V | Sub-optimal | Good-excellent | | Emuckfaw Creek is a *F&W* stream, located three miles west of Daviston, in the Tallapoosa River basin. According to the 2011 National Land Cover Dataset, the watershed is over 75% forested, with no permitted outfalls. It is sparsely populated, with few roads. Biosurvey results indicate the macroinvertebrate community to be in *good-excellent* condition. Seventy-four total taxa, including 32 pollution-sensitive taxa, were collected. |

**Table 4**. Waterbodies where biological surveys indicate aquatic communities in high quality condition.

| Station | Stream | County | ECO | Area ($mi^2$) | Description | HUC | Assessment Unit | Use Class | 2020 Category | Latitude | Longitude | SHU | Ref | Habitat | Biological Conditions | | Biological survey rating justification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | Macro-invertebrates | Fish | |
| [H] HCR-1 | Hurricane Ck | Randolph | 45A | 13.7 | Hurricane Ck upstream of Co Rd 26 | 031501090106 | AL03150109-0106-400 | F&W | 1 | ####### | -85.59829 | | V | Sub-optimal | Excellent | | Hurricane Creek is a small *F&W* stream located near the city of Wadley in the Tallapoosa River basin. According to the 2011 National Land Cover Dataset, the watershed is over 75% forested, with no permitted outfalls. The watershed is of excellent quality. It is very sparsely populated and has a low road density. Taxa richness and diversity are excellent, with 84 total taxa and 45 pollution-sensitive taxa collected at the site. Fifteen of the taxa are only found in the most pristine streams throughout Alabama and the southeast. |
| **Tennessee** | | | | | | | | | | | | | | | | | |
| [R] BTLL-1 | Butler Ck | Lauderdale | 71F | 60.2 | Butler Ck at Co Rd 302 | 060300050507 | AL06030005-0507-100 | F&W | 1 | ####### | -87.61127 | 4 | | Optimal | | Excellent | Although classified as a *F&W* stream, Butler Creek is known for its ecological significance and is one of the most biologically diverse streams per watershed area in Alabama. It is a tributary of Shoal Creek, which has been classified as a SHU based on its geomorphically stable channel and natural flow regime to support the behavior, growth, and survival of several aquatic species listed as threatened or endangered by the USFWS, and of *Highest* or *High Conservation Concern* by the ADCNR. The Butler Creek watershed is approximately 55% forested, with some pasture/hay land cover. There are no permitted outfalls, and relatively few road crossings. The condition of the fish community was rated as excellent, identifying Butler Creek at BTLL-1 as having one of the highest-functioning ecosystems found in Alabama. Taxa richness and diversity are outstanding, with 33 total native species, seven of which are intolerant of degraded water quality and habitat conditions. |
| [R] CPSL-3 | Cypress Ck | Lauderdale | 71F | 190.4 | Cypress Ck at Alabama 133 (Cox Ck Pkwy) | 060300050605 | AL06030005-0605-102 | PWS/ F&W | 1 | ####### | -87.70418 | 3 | | Optimal | | Good | Cypress Creek at Alabama Highway 133 is a *PWS /F&W* stream, located in Lauderdale County. Based on the 2011 National Land Cover Dataset, landuse within the watershed is 38% agriculture and 8% development, with 21 permitted outfalls in the watershed. However, Cypress Creek at this location is known for its unique, stable, and diverse habitat characteristic of the Highland Rim ecoregion. Habitat at the site is dominated by cobble-gravel runs. The fish survey scored good, signaling Cypress Creek at this site to be in good overall ecological health. |
| HURR-1 | Hurricane Ck | Jackson | 68C | 44.4 | Hurricane Ck just off Jackson Co. Rd. 9 | 060300020101 | AL06030002-0101-100 | OAW/ F&W | 1 | ####### | -86.13300 | 9 | V | Sub-optimal | Good-excellent | | Hurricane Creek is an OAW/F&W stream that drains approximately 44 sq mi in Jackson County. The watershed is 92% forested, with no active NPDES outfalls. It is a tributary of Paint Rock River, which has been classified as a SHU based on its geomorphically stable channel and natural flow regime to support the behavior, growth, and survival of several aquatic species listed as threatened or endangered by the USFWS, and of Highest or High Conservation Concern by the ADCNR. Biosurvey results indicate the macroinvertebrate community to be in *good-excellent* condition. Ninety-six total taxa, including 35 pollution-sensitive taxa, were collected. |
| INCL-1 | Indiancamp Ck | Lauderdale | 71F | 8.4 | Indiancamp Ck upstream of Lauderdale Co. Rd. 135 crossing at Indian Camp Festival Park North of Florence | 060300050509 | AL06030005-0509-800 | F&W | 1 | ####### | -87.62080 | | V | Sub-optimal | Good | | Indiancamp Creek at INCL-1 is a small F&W stream located in the Interior Plateau ecoregion. The watershed is a mixture of forested and pasture/hay interspersed with rowcrops and development. The station has been sampled by ADEM as an ecoregional reference site since 1994. Despite some landuse changes within the watershed, conditions at the site have remained good. In 2016, 72 total taxa were collected, including 16 sensitive taxa and 8 highly sensitive taxa. The number of sensitive taxa has ranged from 19 in 1998 to 11 in 2013. Highly sensitive taxa has ranged from 9 in 1998 to 4 in 2013. |
| [R] LBTL-1 | Little Butler Ck | Lauderdale | 71F | 8.0 | Little Butler Ck at Co Rd 61 | 060300050507 | AL06030005-0507-200 | F&W | 1 | ####### | -87.61645 | 4 | V | Sub-optimal-optimal | | Excellent | A tributary of Shoal Creek, Little Butler Creek is classified as a *Fish and Wildlife (F&W)* stream located in Lauderdale County. Little Butler Creek is known for its ecological significance, and is one of the most biologically diverse streams per watershed area in Alabama. As a tributary to a SHU, the watershed maintains a geomorphically stable channel and a natural flow regime that support the behavior, growth, and survival of three federally listed endangered and threatened aquatic species, and nine aquatic species listed to be of the *Highest* or *High Conservation Concern* by the state of Alabama. The watershed is 66% forested, with no permitted outfalls. It is sparsely populated, and there are relatively few roads. With <16% of the watershed composed of agricultural land uses, ADEM's measure of watershed disturbance ranks the Little Butler Creek watershed as among the best located within the Interior Plateau ecoregion. The condition of the fish community was rated as *excellent* , identifying Little Butler Creek at LBTL-1 as having one of the highest functioning ecosystems found in Alabama. Taxa richness and diversity are outstanding, with 31 total native species in an $8mi^2$ drainage area. Six of the taxa are known to be intolerant of pollution, and found only in the most pristine streams throughout Alabama. |

R. Monitoring summary report located at: http://www.adem.alabama.gov/programs/water/wqsurvey/2016RiversAndStreams.htm.