Draft
Delisting Decision
for
Fly Creek

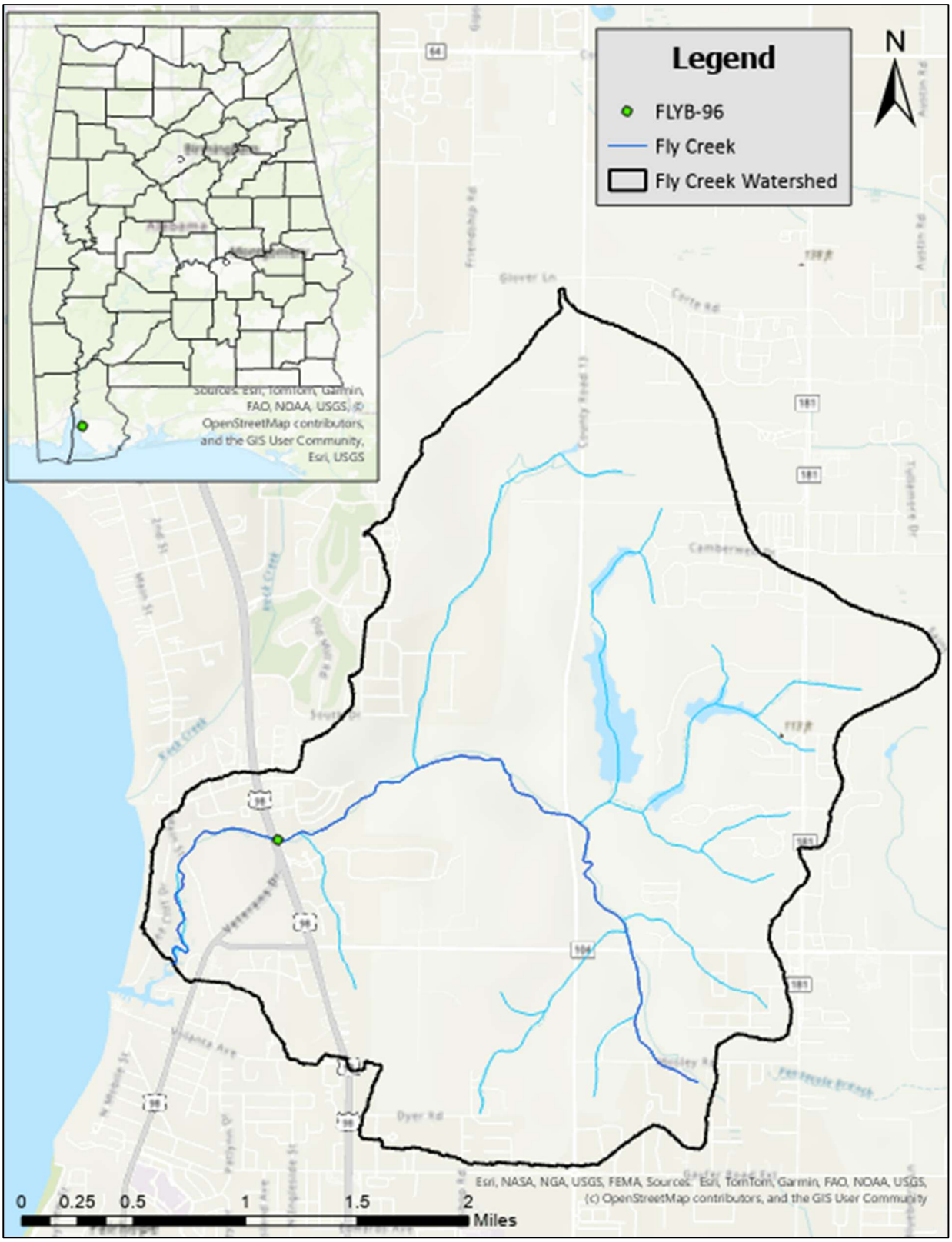
Assessment Unit ID# AL03160205-0205-702

Pathogens (*E. coli*)

Baldwin County

Alabama Department of Environmental Management
Water Quality Branch
Water Division
January 2026

Figure 1: Fly Creek Watershed



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1.0 Executive Summary

The segment of Fly Creek from ten feet above mean sea level (MSL) to its source is located in Baldwin County and is part of the Mobile River basin. It has a length of 3.32 miles and a use classification of Swimming and Other Whole Body Water-Contact Sports and Fish & Wildlife (Swimming/F&W).

This segment of Fly Creek was first placed on Alabama's §303(d) list for pathogens (*E. coli*) in 2018 based on data collected by the Alabama Department of Environmental Management (ADEM) in 2016. The source of the pathogens impairment was listed as pasture grazing.

In 2023, §303(d) sampling studies were performed by ADEM on Fly Creek to further assess the water quality of the impaired stream. ADEM collected fifteen *E. coli* samples from Fly Creek at station FLYB-96. A review of the general water quality and intensive *E. coli* studies revealed that Fly Creek now fully supports the pathogen criteria applicable to its use classification (Swimming/F&W).

This report addresses the results of the delisting analysis for Fly Creek. Based on the assessment of the available data, ADEM has determined that a water quality impairment due to pathogens (*E. coli*) does not currently exist. Therefore, ADEM will not develop a total maximum daily load (TMDL) due to "more recent or accurate data," which is just cause for delisting a waterbody according to Title 40 of the Code of Federal Regulations (CFR), Part 130.7(b)(6)(iv).

2.0 Basis for §303(d) Listing

Section 303(d) of the Clean Water Act (CWA), as amended by the Water Quality Act of 1987, and the Environmental Protection Agency (EPA) Water Quality Planning and Management Regulations [Title 40 of the Code of Federal Regulations (CFR), Part 130], require states to identify waterbodies which are not meeting water quality standards applicable to their designated use classifications. The identified waters are prioritized based on severity of pollution with respect to designated use classifications. TMDLs for all pollutants causing violation of applicable water quality standards are established for each identified water. Such loads are established at levels necessary to implement the applicable water quality standards with seasonal variations and margins of safety. The TMDL process establishes the allowable loading of pollutants, or other quantifiable parameters for a waterbody, based on the relationship between pollution sources and in-stream water quality conditions, so that states can establish water-quality based controls to reduce pollution from both point and non-point sources and restore and maintain the quality of their water resources (USEPA, 1991).

The segment of Fly Creek from ten feet above MSL to its source was first listed on Alabama's §303(d) list for pathogens (*E. coli*) in 2018 based on data collected by ADEM in 2016. The source of the pathogens impairment was listed as pasture grazing. The impairment was subsequently included on the 2020, 2022 and 2024 §303(d) lists. The 2016 listing data is shown in Table 1 below.

Table 1: Data for §303(d) Listing - Ambient Monitoring

Station ID	Sample Date	*E. Coli* (col/100ml)	*E. coli* Detect Criteria *	Single Sample Criteria	Flow (cfs)	Flow Measured by ADEM
FLYB-96	3/8/2016	22		235	10.07	YES
FLYB-96	4/5/2016	46		235	13.42	YES
FLYB-96	5/4/2016	37		235	8.34	YES
FLYB-96	6/9/2016	22	J	235	8.2	YES
FLYB-96	7/26/2016	270		235	8.62	YES
FLYB-96	8/18/2016	310		235	8.87	YES
FLYB-96	9/26/2016	82		235	7.12	YES
FLYB-96	10/18/2016	68		235	8.63	YES

*J – Reported microbiological result is an estimate.

3.0 Technical Basis for Delisting Decision

3.1 Water Quality Target Identification

Fly Creek is classified as Swimming/F&W. Criteria for acceptable bacteria levels for the Swimming classification are described in ADEM Admin. Code R. 335-6-10-.09(3)(c)6(i), (ii), and (iii) as follows:

6. Bacteria:

(i) Waters in the immediate vicinity of discharges of sewage or other wastes likely to contain bacteria harmful to humans, regardless of the degree of treatment afforded these wastes, are not acceptable for swimming or other whole body water-contact sports.

(ii) In all other areas, the bacterial quality of water is acceptable when a sanitary survey by the controlling health authorities reveals no source of dangerous pollution and when the geometric mean E. coli organism density does not exceed 126 colonies/100 ml nor exceed a maximum of 235 colonies/100 ml in any sample in non-coastal waters. In coastal waters, bacteria of the enterococci group shall not exceed a geometric mean of 35 colonies/100 ml nor exceed a maximum of 104 colonies/100 ml in any sample. The geometric mean shall be calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours. When the geometric mean bacterial organism density exceeds these levels, the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters.

(iii) The policy of nondegradation of high quality waters shall be stringently applied to bacterial quality of recreational waters.

Criteria for acceptable bacteria levels for the F&W use classification are described in ADEM Admin. Code R. 335-6-10-.09(5)(e)7(i) and (ii) as follows:

7. Bacteria:

(i) In non-coastal waters, bacteria of the E. coli group shall not exceed a geometric mean of 548 colonies/100 ml; nor exceed a maximum of 2,507 colonies/100 ml in any sample. In coastal waters, bacteria of the enterococci group shall not exceed a maximum of 275 colonies/100 ml in any sample. The geometric mean shall be calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours.

(ii) For incidental water contact and whole body water-contact recreation during the months of May through October, the bacterial quality of water is acceptable when a sanitary survey by the controlling health authorities reveals no source of dangerous pollution and when the geometric mean E. coli organism density does not exceed 126 colonies/100 ml nor exceed a maximum of 298 colonies/100 ml in any sample in non-coastal waters. In coastal waters, bacteria of the enterococci group shall not exceed a geometric mean of 35 colonies/100 ml nor exceed a maximum of 158 colonies/100 ml in any sample. The geometric mean shall be calculated from no less than five samples collected at a given station over a 30-day period at intervals not less than 24 hours. When the geometric bacterial coliform organism density exceeds these levels, the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters. Waters in the immediate vicinity of discharges of sewage or other wastes likely to

contain bacteria harmful to humans, regardless of the degree of treatment afforded these wastes, are not acceptable for swimming or other whole body water contact sports.

3.2 Data Availability and Analysis

In 2023, §303(d) sampling studies were performed by ADEM on Fly Creek at station FLYB-96 to further assess the water quality of the impaired stream. For purposes of this delisting decision, the 2023 data will be used to assess the water quality of Fly Creek because it is the most recent data and provides the best picture of the current water quality conditions of the stream. The 2024 edition of *Alabama's Water Quality Assessment and Listing Methodology*, prepared by ADEM, provides the rationale for the Department to use the most recent data to delist waterbody. A description of the sampling station can be found in Table 2 below, and a map of the area and station location can be found in Figure 2 on the following page.

Table 2: Station Description

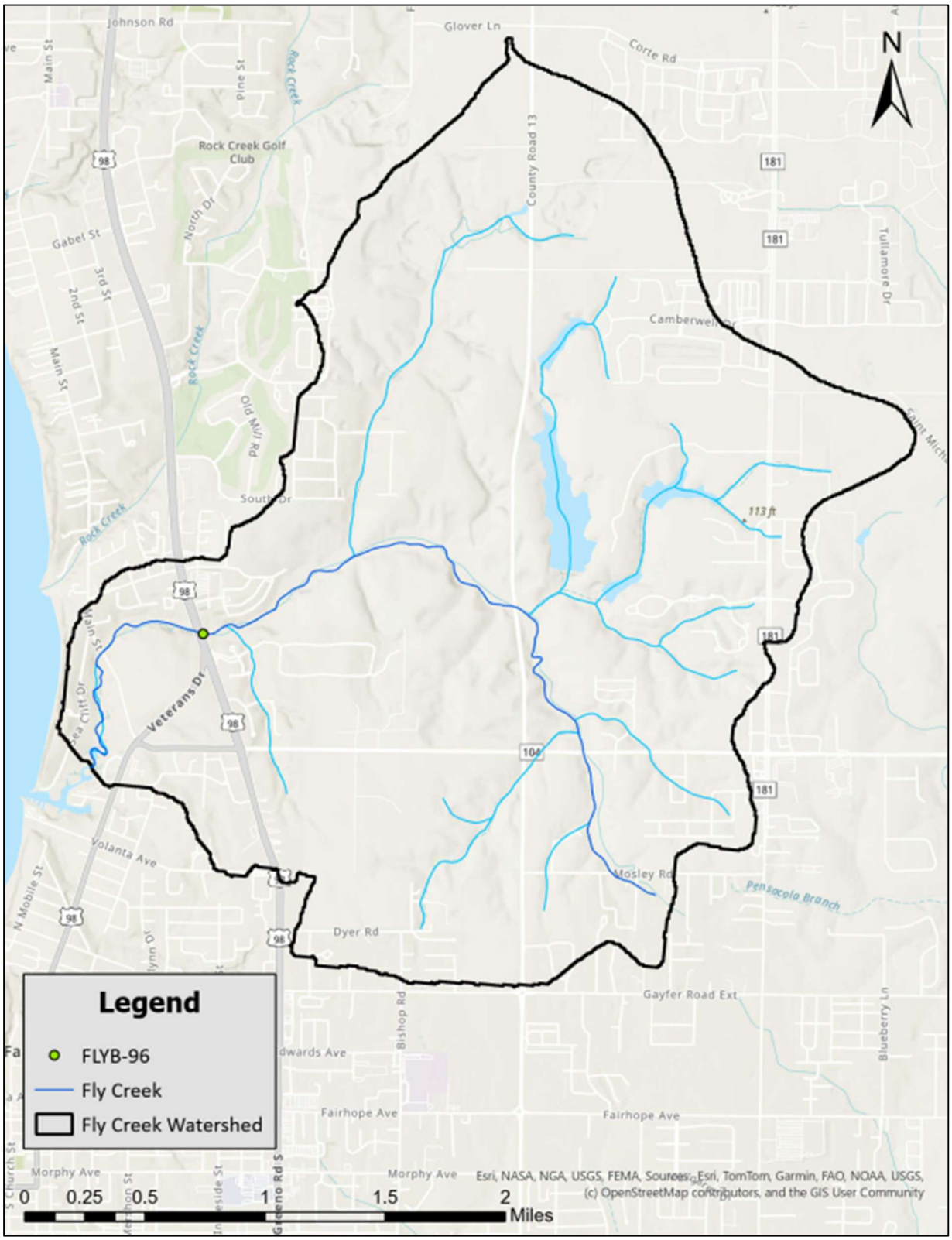
Station	Agency	Latitude	Longitude	Description
FLYB-96	ADEM	30.55245	-87.89166	Fly Creek at US Highway 98

Fifteen *E. coli* samples were collected during 2023 at station FLYB-96, and intensive bacteria studies were performed during the months of May/June and August. Each intensive bacteria study consisted of collecting at least five *E. coli* samples over a thirty-day period, with a minimum of 24 hours between each sample collection. Of the fifteen samples taken, there were no exceedances of the single sample maximum criterion. There were also no exceedances of the geometric mean criterion. A summary of the *E. coli* results is provided in Table 3.

Table 3. 2023 *E. coli* Data for Fly Creek

Station ID	Sample Date	*E. Coli* (col/100ml)	Single Sample Criterion (col/100ml)	Geometric Mean Calculation (col/100ml)	Geometric Mean Criterion (col/100ml)	Flow (cfs)	Flow Measured by ADEM
FLYB-96	3/23/2023	15	235			9.55	YES
FLYB-96	4/11/2023	14	235			7.21	YES
FLYB-96	5/18/2023	16	235			12.75	YES
FLYB-96	5/25/2023	49	235				NO
FLYB-96	5/31/2023	2	235	17.6	126	11.72	YES
FLYB-96	6/12/2023	45	235			5.62	YES
FLYB-96	6/14/2023	24	235			8.68	YES
FLYB-96	7/19/2023	51	235			7.34	YES
FLYB-96	8/1/2023	67	235				NO
FLYB-96	8/3/2023	91	235			6.27	YES
FLYB-96	8/7/2023	68	235	90.1	126	8.44	YES
FLYB-96	8/9/2023	110	235			6.94	YES
FLYB-96	8/14/2023	130	235			7.27	YES
FLYB-96	9/12/2023	110	235			7.92	YES
FLYB-96	10/5/2023	6.3	235			6.55	YES

Figure 2: ADEM 2023 Sampling Station in the Fly Creek Watershed



4.0 Conclusion

Based on an examination of the recently collected water quality data on Fly Creek, ADEM has determined that a water quality impairment due to pathogens (*E. coli)* does not currently exist. Therefore, ADEM will not develop a TMDL due to "more recent data," which is a just cause for delisting waterbodies according to Title 40 of the Code of Federal Regulations (CFR), Part 130.7(b)(6)(iv).

5.0 Public Participation

As part of the public participation process, this Delisting Decision (DD) will be placed on public notice and made available for review and comment. The public notice will be prepared and published in four newspapers in Montgomery, Huntsville, Birmingham, and Mobile, as well as submitted to persons who have requested to be on ADEM's postal and electronic mailing distributions. In addition, the public notice and subject document will be made available on ADEM's Website: www.adem.alabama.gov. The public can also request paper or electronic copies of the DD by contacting Ms. Kimberly Minton at 334-271-7826 or kminton@adem.alabama.gov. The public will be given an opportunity to review the DD and submit comments to the Department in writing. At the end of the public review period, all written comments received during the public notice period will become part of the administrative record. ADEM will consider all comments received by the public prior to final completion of this DD and subsequent submission to EPA Region 4 for final review and approval.

6.0 Appendices

6.1 References

ADEM Administrative Code, 2025. Water Division - Water Quality Program, Chapter 335-6-10, Water Quality Criteria.

ADEM Administrative Code, 2025. Water Division - Water Quality Program, Chapter 335-6-11, Use Classifications for Interstate and Intrastate Waters.

Alabama's Monitoring Program. 2016, 2023. ADEM.

Alabama Department of Environmental Management (ADEM), *Alabama's Water Quality Assessment and Listing Methodology*, 2024.

Alabama's §303(d) List and Fact Sheet. 2018, 2020, 2022, 2024. ADEM.

Alabama Department of Environmental Management (ADEM), Laboratory Data Qualification SOP #4910 Revision 7.2, 2022.

United States Environmental Protection Agency, 1991. Guidance for Water Quality-Based Decisions: The TMDL Process. Office of Water. EPA 440/4-91-001.

United States Environmental Protection Agency, 1986. Quality Criteria for Water. Office of Water. EPA 440/4-91-001.

6.2 Fly Creek Photographs

Figure 3: At FLYB-96: Upstream View of Fly Creek (6/14/2023)

Figure 4: At FLYB-96: Downstream View of Fly Creek (6/14/2023)