

**Documentation in Support of Assessment Category 4e
WBID 647I – Shakey Pond
October 2025**

Waterbody/Watershed Identification

<i>Organization</i>	City of Tallahassee
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<i>Waterbody(s)</i>	WBID 647I Shakey Pond
<i>No. Waterbody / Pollutant Combinations</i>	WBID 647I; Chlorophyll-a & Total Phosphorus
<i>EPA Completed TMDL</i>	No
<i>Waterbody(s) within an Adopted BMAP</i>	Yes. Shakey Pond is within the springshed for the Upper Wakulla River and Wakulla Spring BMAP.

Description of Baseline Conditions

<i>Watershed(s)</i>	Ochlockonee/St. Marks River Watershed/Lake Lafayette Planning Unit (Group 1)		
<i>Baseline Data</i>	Shakey Pond Original Listing: October 2019 Data Utilized:		
	Parameters Assessed Using the Impaired Surface Waters Rule (IWR)	Planning Period Assessment Data	Verified Period Assessment Data
	Nutrients (Chlorophyll-a)	AGM 2009 (37 µg/L) 2010 (30 µg/L) 2011 (59 µg/L) 2012 (41 µg/L) 2013 (10 µg/L)	AGM 2011 (59 µg/L) 2012 (41 µg/L) 2013 (10 µg/L) 2017 (74 µg/L)

Nutrients (Total Nitrogen)	AGM 2008 (1.18 mg/L) 2011 (1.38 mg/L)	AGM 2011 (1.38 mg/L) 2017 (1.91 mg/L)
Nutrients (Total Phosphorus)	AGM 2008 (0.18 mg/L) 2009 (0.16 mg/L) 2010 (0.10 mg/L) 2011 (0.12 mg/L) 2013 (0.10 mg/L)	AGM 2011 (0.12 mg/L) 2013 (0.10 mg/L) 2017 (0.17 mg/L)

Map

A Vicinity Map is presented in Geosyntec's 2024 Summary Report (Attachment 1), Figure 1-1.

Evidence of Watershed Approach

Area of Effort

Shakey Pond is a shallow 14-acre pond with a contributing drainage area of approximately 240 acres. The southern shore of the pond is bounded by a wooded 75-acre public park (A.J. Henry Park), while the northern shore is bordered by medium-density residential homes. Shakey pond receives surface water inflow from various surrounding locations and pond outflow is controlled by a water control structure located on the southeast shore, crossing Charleston Road. Attachment 1 provides an overview of the project area.

Key Stakeholders Involved and Their Roles

The City of Tallahassee is the primary stakeholder for Shakey Pond. The City is coordinating restoration efforts with residents through the Shakey Pond HOA and Whitfield Plantation HOA.

Watershed Plan & Other Supporting Documentation

The watershed drainage area for Shakey Pond is approximately 240 acres within WBID 6471 – Shakey Pond. This WBID is impaired for nutrients (Chla, TP) based on the Florida Department of Environmental Protection's water quality assessment of TP and chlorophyll AGMs. The City plans to restore Shakey Pond to its natural state as a wetland/slough system through a restoration project. The project objectives are described in Geosyntec's 2024 Summary Report (Attachment 1), Tetra Tech's Technical Memoranda (Attachment 2) and the Tetra Tech Preliminary Design (Attachment 3) for the proposed *Shakey Pond Water Quality Improvements*. The proposed wetland reversion is expected to return the pond to the original wetland/slough system and reduce nutrient (TN & TP) concentrations discharged to downstream waters, which will sufficiently address the listed nutrient impairments and provide for a balanced population of flora and fauna.

Point Sources and Indirect Source Monitoring (Sites)

The watershed drainage area is within the jurisdiction of the Municipal Separate Storm Sewer System (MS4) permit for the City of Tallahassee. No additional point sources have been identified within the watershed.

Is a portion or entire area regulated through a NPDES Municipal Separate Storm Sewer System (MS4) permit (if applicable)? Yes. FLS000034/City of Tallahassee.

<i>Nonpoint Sources</i>	<p>Land use within the watershed is over 80% residential. A City-owned public park (A.J. Henry Park) is also within the watershed. Typical non-point sources of nutrients from these land use types include soil erosion, fertilizer, pet waste, and wildlife.</p> <p>A detailed breakdown of land use is presented in Geosyntec's 2024 Summary Report (Attachment 1), Figure 2-6 and Figure 2-7. A detailed nutrient budget, including nonpoint source loading, is also presented in Geosyntec's 2024 Summary Report (Attachment 1), Section 8, Figure 8-1.</p>
<i>Water Quality Criteria</i>	<p>Post restoration activities, the City and DEP will determine the appropriate water quality criteria for WBID 647I as this system reverts to a wetland/slough system and is more naturally integrated into the Alford Arm Tributary (WBID 647M). It's anticipated the waterbody will be assessed as a wetland/slough system.</p>
<i>Restoration Work</i>	<p>The planned restoration activity is a wetland/slough restoration project for Shakey Pond, which will revert the pond to more of its natural state. Detailed descriptions of the restoration work are provided in Geosyntec's 2024 Summary Report (Attachment 1), Tetra Tech's Technical Memoranda (Attachment 2) and the Tetra Tech Preliminary Design (Attachment 3).</p>

Critical Milestones/Monitoring

<i>Anticipated Critical Milestone(s) and Completion Dates:</i>	<p>The planned restoration activity is reverting Shakey Pond to its natural wetland/slough state via a restoration project so named the <i>Shakey Pond Water Quality Improvements</i>. The project has been divided into three elements: Planning, Design and Construction, and Operation and Maintenance. More detail is provided below.</p> <p>Planning</p> <ul style="list-style-type: none"> • Water Quality Study <i>Geosyntec</i> (Completed 2024) • Bathymetry & Survey Data Collection <i>Woolpert</i> (Completed 2024) • Concept Development <i>Tetra Tech</i> (Completed 2025) • Preliminary Stakeholder Outreach (Completed 2025) <p>Design and Construction</p> <ul style="list-style-type: none"> • Final Design, completion Summer 2026. • Permitting, completion Spring 2026. • Final Stakeholder Outreach, completion Spring 2026. • Construction, scheduled to commence Fall 2026 and complete Spring 2027. <p>Operation and Maintenance</p> <ul style="list-style-type: none"> • Ongoing maintenance is expected to be necessary in perpetuity following construction.
<i>Monitoring Component</i>	<p>The City of Tallahassee will be responsible for monitoring the wetland. Monitoring is anticipated to contain a biological and water quality component. The monitoring will capture metrics to evaluate attainment of applicable water quality criterion. All water quality samples will be analyzed at a NELAC certified laboratory, which is anticipated to be the City of Tallahassee Laboratory, and all water quality and biological monitoring activities will follow DEP SOPs as applicable.</p>

Biological Monitoring

The City will consult with DEP to determine the most appropriate biological metrics. It's anticipated the monitoring will be used to assess both wetland health and to inform necessary maintenance activities.

Water Quality Monitoring

Initially, ambient bi-monthly water quality monitoring will occur for the below parameters. Upon establishment, monitoring may be reduced to quarterly.

Parameters	Methods
Low-Level Total Phosphorus (LL-TP)	EPA 365.1
Ortho-Phosphorus	EPA 365.1
Nitrate + Nitrite (NO2 + NO3)	EPA 353.2
Total Kjeldahl Nitrogen (TKN)	EPA 351.2
Ammonia (NH3)	EPA 350.1
Total Solids (TS)	SM 2540-B
Total Suspended Solids (TSS)	SM 2540-D
Total Volatile Solids (VS)	EPA 160.4
Total Dissolved Solids (TDS)	SM 2540-C
Biochemical Oxygen Demand (BOD)	SM 5210-B
Chemical Oxygen Demand (COD)	EPA 410.4
E.coli	EPA 1603
Alkalinity	SM2320B
Chlorophyll-A	SM10200H

Other Key Dates

Estimated Date for Delisting from Verified List or Removal from Study List

Shakey Pond (WBID 647I) is in the state's Group 1 Basin (Ochlockonee - St. Marks). The most recent review and assessment cycle was completed in 2024. This waterbody is impaired for Nutrients (Chlorophyll-a & Total Phosphorus) based on the lake criteria. Post improvements Shakey Pond will be restored to its natural state as a wetland/slough system. Based on the construction timeline and assessment periods, the earliest opportunity for delisting would occur during the next biennial assessment cycle (2026-2028). Once the proposed project has been implemented and established, an improvement in water quality is expected. At which time sufficient data will be acquired to fully assess the waterbody (as applicable). If determined by the updated data set that the parameters in question are no longer impaired, DEP is expected to request the WBID be delisted from the federal 303(d) list (if impairments remain).

Financial Commitments

Estimated Implementation Cost

The planned restoration activity has been divided into three elements: Planning, Design and Construction, and Operation and Maintenance. The planning element is complete. The design and construction elements are planned for completion by Spring 2027 with the operation and maintenance expected to continue in perpetuity.

Planning costs: \$310,000.

Design and Construction estimated costs: \$3,100,000.

	Operation and maintenance estimated costs: \$20,000 annually.
<i>Land Acquisition (if applicable)</i>	No <i>fee simple</i> land acquisition is required for these activities. If necessary, the City will acquire temporary and/or perpetual easements to support these activities. Easement costs are expected to be minimal.
<i>Funding Sources</i>	The City is committed to 100% funding of these activities. The City also plans to pursue grant funding for construction. If grant funds are received the City's funding level will decrease by the amount of the executed grant contract.

References:

- Attachment 1: Geosyntec's 2024 Summary Report
- Attachment 2: Tetra Tech's Technical Memoranda
- Attachment 3: Tetra Tech Preliminary Design