

## **Review Plan for Lakewood Dam Removal Implementation Documents**

Refer to ER 1165-2-217, *Civil Works Review Policy*, 1 May 2021, regarding the requirements for executing this plan.

1. Date: 23 February 2024
2. Review plan revision date, if applicable: Initial
3. Project name: Lakewood Park Project (Atlanta Environmental Infrastructure Project)
4. Project location: Atlanta (Fulton County), Georgia
5. Project number: 497096
6. Review Management Organization (RMO): SAD
7. Expected in-kind contributions/services to be provided by the non-Federal sponsor:
  - a. Engineering and design service as described below.
  - b. Existing utility relocations required within Lakewood Avenue
8. Construction delivery method: Design-Bid-Build
9. Construction contract acquisition strategy: IFB
10. Target construction contract award date(s): 22-April 2027 (Awaiting revised schedule from AE)
11. Estimated construction contract value(s) (range): \$10M
12. Work description: This first increment of work for the Lakewood Park Project includes the removal of Culvert 1 as described in the Lakewood Park Stormwater Improvements – Culvert 1 Letter Report dated July 2022 and approved by the Division Commander on 8 August 2022. Culvert 1 is the outlet works for a small earthen dam, the Lakewood Dam (NID GA01977), which impounds the Lakewood Fairgrounds Lake. Culvert 1 will be replaced with new stormwater management measures that will pass stormwater flows without impoundment. Thus, the Lakewood Dam will no longer impound a lake and will therefore no longer be a dam.



13. Designer of Record: City of Atlanta Department of Watershed Management (DWM) has contracted the design services to a joint-venture, Atlanta Water Partners, consisting of Jacobs Engineering, EDT, and JAT Consulting Services.
14. Documents to be reviewed: Construction plans, specifications, and corresponding design reports. The construction plans and specifications will be prepared in USACE format for the Savannah District to award and administer a construction contract. The Savannah District will be responsible for the appropriate contract clauses.
15. Required reviews:
  - a. Quality control review performed by the Designer of Record (beyond the scope of this review plan)
  - b. District Quality Assurance (DQA) Review
  - c. Agency Technical Review (ATR)
  - d. Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review
16. Site visits by review teams: Date TBD if review team site visit is required.
17. Justification to waive ATR, if applicable: N/A
18. ATR team disciplines and qualifications:

Discipline	Expertise Required
ATR Lead	Must be external to SAD and must have led or participated in previous ATRs. May be combined with another team member. Shall be a senior professional with experience preparing Civil Works

	implementation documents. Should have the skills to manage a virtual team through an ATR.
Civil Engineer (H&H)	Shall be a professionally registered engineer with at least 5 years of hydrology and hydraulics (H&H) experience, preferably including analysis, design, and construction of embankment dams.
Civil Engineer	Shall be a professionally registered engineer with at least 5 years of civil engineering experience, preferably including civil site-design.
Geotechnical Engineer	Shall be a professionally registered engineer with at least 5 years of experience in geologic and geotechnical analyses, preferably including in the analysis, design, and construction of embankment dams. Additional preferential experience includes slope-stability, seepage, and geotechnical modeling.
Structural Engineer	Shall be a professionally registered engineer with at least 5 years of experience in structural engineering design work, including the repair of existing structures. Additional preferential experience includes analysis of culverts or other dam appurtenant structures
Environmental Compliance Specialist	Shall have at least 5 years of experience evaluating environmental impacts associated with stream restoration. Shall also be experienced in the environmental regulatory compliance requirements.

19. Considerations regarding the need for a SAR.

- a. If the project will impound water, could project failure result in flooding-related loss of human life? N/A.
- b. If the project will impound water, will the design of water impoundment features deviate from USACE guidance or be based on uncommon analytical methods or material types? No.
- c. If modifying an existing project that impounds water, could the probability of project failure be temporarily increased during construction? No. The Designer of Record is expected to define temporary surface water control measures that preclude an increase in the probability of dam failure during construction.

20. Determination regarding the need for a SAR: The District Chief of Engineering has determined that a SAR is not warranted.

21. Numerical modeling software to be utilized: COA/Consultant has identified the primary numerical modeling software for hydraulic analysis to be HEC-RAS. They also plan to use information from an existing PCSWMM model and anticipate using CFD model for any energy dissipation needed at the outlet for Culvert 1. PCSWMM has been identified as an “allowed” software on the HH&C CoP software list. USACE will provide a list of preferred CFD software to the COA/Jacobs. Software use will be approved by the ATR lead.

22. Schedule and cost of reviews:

Review	Month/Year	Cost
DQC Review	9-Apr-2024	\$20K
ATR	9-Jul-2024	\$35K
BCOES Review	XX/2024	\$25K