RUN-ON AND RUN-OFF CONTROL SYSTEM PLAN

2026 FIVE-YEAR PERIODIC UPDATE
COMBUSTION BYPRODUCT LANDFILL (CCR UNIT CCR-1)
LCRA SAM SEYMOUR FAYETTE POWER PROJECT
LA GRANGE, FAYETTE COUNTY, TEXAS
TCEQ CCR REGISTRATION NO. CCR101

August 11, 2026

Prepared For:

LCRA
ENERGY • WATER • COMMUNITY SERVICES

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CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I, Daniel Bullock, being a Registered Professional Engineer in good standing in the State of Texas, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this Run-on and Run-off Control System Plan – 2026 Five-Year Periodic Update (the Plan) for the Combustion Byproduct Landfill (CCR Unit CCR-1) at the LCRA Sam Seymour Fayette Power Project, La Grange, Fayette County, Texas has been prepared in accordance with the accepted practice of engineering. I hereby certify, in accordance with 40 CFR §257.81(c)(5), adopted by reference in Title 30 Texas Administrative Code §352.811, that this Plan meets the requirements of 40 CFR §257.81.

Daniel B. Bullock, P.E.
Principal Engineer
Texas Professional Engineer License No. 82596
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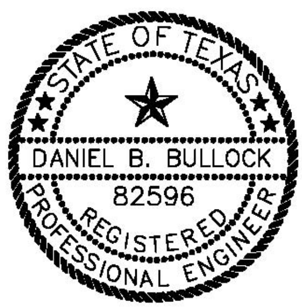
Date: 8/11/2026



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1.0 INTRODUCTION

1.1 Purpose

This report presents the five-year periodic update to the Run-on and Run-off Control System Plan (the Plan) for the Combustion Byproduct Landfill (CBL) at the LCRA Sam Seymour Fayette Power Project (referred to in the remainder of this Plan as the Fayette Power Project, or FPP) which is located in La Grange, Fayette County, Texas. The Plan was prepared by Bullock, Bennett & Associates, LLC (BBA) on behalf of the Lower Colorado River Authority (LCRA), the owner and operator of the facility.

The Plan documents how the run-on and run-off control systems for the active portion of the CBL have been designed and constructed to meet the performance standards of 40 Code of Federal Regulations (CFR) §257.81(a) and (b), as required by 40 CFR §257.81(c)(1), and satisfies the requirement of 40 CFR §257.81(c)(4) that periodic plans be prepared every five years. These federal provisions are adopted by reference in Texas at Title 30 Texas Administrative Code (30 TAC) §352.811.

1.2 Regulatory Basis

In accordance with 40 CFR §257.81(a), adopted by reference at 30 TAC §352.811, the owner or operator of an existing CCR landfill must design, construct, operate, and maintain:

- a run-on control system to prevent flow onto the active portion of the CCR unit during the peak discharge from a 24-hour, 25-year storm (§257.81(a)(1)); and
- a run-off control system from the active portion of the CCR unit to collect and control at least the water volume resulting from a 24-hour, 25-year storm (§257.81(a)(2)).

The 24-hour, 25-year storm has accordingly been adopted as the Design Storm for the evaluations presented in this Plan. In addition, run-off from the active portion of the unit must be handled in accordance with the surface water requirements of 40 CFR §257.3-3 (40 CFR §257.81(b)).

The term "active portion" refers to that part of a coal combustion residuals (CCR) unit that has received or is receiving waste and has not completed closure (40 CFR §257.53). The active portion therefore includes areas where waste is being disposed as well as inactive areas where disposal has occurred previously, including portions overlain with intermediate cover.

30 TAC §352.811 adopts 40 CFR §257.81 by reference as amended through the April 17, 2015 issue of the Federal Register (80 FR 21301). The United States Environmental Protection Agency (USEPA) approval of the Texas partial CCR permit program became effective July 28, 2021. TCEQ guidance for CCR landfills is provided in Draft Technical Guideline No. 30 (TCEQ, 2020).

The CBL is authorized under TCEQ Coal Combustion Residuals Registration No. CCR101, issued July 10, 2025 to LCRA.

1.3 Facility and Unit Background

The FPP is a coal-fired electric generating station located east of La Grange in Fayette County, Texas. CCR generated at the facility is disposed in the CBL, a CCR landfill located south of the power plant and north of the railroad that borders the FPP site.

Under Registration No. CCR101, the CBL is identified as registered CCR Unit CCR-1. Cell 1 and Subcell 2D are identified as active, with a combined rated capacity of approximately 2,400,000 cubic yards. Subcells 2A, 2B, and 2C and Subcells 3A, 3B, and 3C are identified as proposed, with a combined rated capacity of approximately 10,000,000 cubic yards. As these cells have not been constructed, they are not included in the analysis of run-on and run-off controls in this Plan.

Cell 1 was constructed in 1988 with a recompacted clay liner installed over natural clay subgrade, and the northern slope of Cell 1 was closed with a final cover system in 1992 (Geosyntec, 2021). Subcell 2D was constructed between October 2014 and May 2015 with a three-foot-thick compacted clay liner having a hydraulic conductivity of less than 1×10^{-7} cm/s, and includes the Subcell 2D Contact Water Retention Pond, which is lined with a geomembrane and compacted clay composite liner (Geosyntec, 2021). Subcell 2D is used as a waste storage and product preparation area. Cell 1 and Subcell 2D are existing CCR landfill areas under 40 CFR §257.53.

Additional background regarding the configuration, liner systems, and planned development of the CBL is presented in Section 1.2 of the 2021 Run-On and Run-Off System Control Plan (2021 Plan) and in Registration No. CCR101 and is not repeated here.

1.4 Relationship to the 2021 Plan and Scope of This Update

The initial Run-on and Run-off Control System Plan for the CBL was prepared by Geosyntec Consultants (Geosyntec) in 2016 (Geosyntec, 2016). The first periodic update was prepared by Geosyntec in July 2021 and certified on August 11, 2021 (Geosyntec, 2021). This document is the second periodic update and supersedes the 2021 Plan with respect to the analyses presented herein.

Consistent with 40 CFR §257.81(c)(1), this update is focused on the run-on and run-off control systems serving the active portion of the CBL and on the conditions and analyses that have changed since 2021. Elements of the 2021 Plan that remain unchanged, and elements that are not required by 40 CFR §257.81, are incorporated by reference rather than restated. These include, but are not limited to, the final-conditions (post-closure) stormwater management system design, the Revised Universal Soil Loss Equation analysis and resulting maximum drainage bench spacing, and the erosion protection specified for drainage downchutes, all of which are addressed in Section 4.3 and Appendices A and B of the 2021 Plan.

The principal changes in conditions and methodology since the 2021 Plan are as follows:

- The runoff channel and the Runoff Retention Pond have been removed from the stormwater modeling and calculations. These runoff controls are not part of the CCR program and are therefore no longer evaluated under 40 CFR §257.81. The runoff channel and Runoff Retention

Pond continue to be authorized under the LCRA Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002105000 (Section 4.2).

- Registration No. CCR101 was issued on July 10, 2025, establishing CCR Unit CCR-1 as the registered CCR unit at the facility.
- New lidar terrain data was collected in June 2026 and a new topographic survey of the Subcell 2D Contact Water Retention Pond perimeter was performed in June 2026.
- The CBL perimeter dike system was evaluated using a two-dimensional hydraulic model rather than the Rational Method and open-channel calculations used in 2021.
- A more conservative Curve Number of 94 was adopted, in place of the value of 84 used in 2021.
- Modifications to the interior perimeter drainage ditch and to a landfill access ramp that are under construction, as presented in the grading plan included as Appendix B, were incorporated into the terrain used for the hydraulic evaluation (Section 5.5).

1.5 Organization of the Plan

The following Sections present the stormwater run-on and run-off control analysis methodology and results:

- Section 2 summarizes the regulatory requirements applicable to the run-on and run-off control systems and to this Plan;
- Section 3 describes the run-on control system for the CBL and assesses compliance with 40 CFR §257.81(a)(1);
- Section 4 describes the run-off control system for the CBL and assesses compliance with 40 CFR §257.81(a)(2) and (b);
- Section 5 describes the hydrologic and hydraulic evaluation performed in support of this Plan;
- Section 6 presents the results of the evaluation;
- Section 7 presents the conclusions of the Plan; and
- Section 8 lists the references cited.

A certification by a qualified professional engineer, as required by 40 CFR §257.81(c)(5), is provided immediately following the title page. Supporting documentation is presented in Appendix A and the grading plan is presented in Appendix B.

2.0 REGULATORY REQUIREMENTS

2.1 Run-On and Run-Off Control Performance Standards

As set out in Section 1.2, 40 CFR §257.81(a) and 30 TAC §352.811 require that the run-on and run-off control systems for the CBL be designed, constructed, operated, and maintained to prevent flow onto the active portion of the unit during the peak discharge from a 24-hour, 25-year storm, and to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

2.2 Plan Content, Certification, and Completion

In accordance with 40 CFR §257.81(c)(1), the Plan must document how the run-on and run-off control systems have been designed and constructed to meet the applicable requirements of §257.81 and must be supported by appropriate engineering calculations. A periodic plan is complete when it has been placed in the facility's operating record as required by 40 CFR §257.105(g)(3).

In accordance with 40 CFR §257.81(c)(5), the owner or operator must obtain a certification from a qualified professional engineer, or approval from the Participating State Director or from USEPA where USEPA is the permitting authority, stating that the initial and periodic plans meet the requirements of §257.81. The professional engineer certification for this Plan is provided immediately following the title page.

In accordance with 40 CFR §257.81(c)(4), periodic plans must be prepared every five years, and the deadline for completing a subsequent plan is based on the date of completing the previous plan. The 2021 Plan was certified on August 11, 2021.

2.3 Amendment of the Plan

In accordance with 40 CFR §257.81(c)(2), this Plan may be amended at any time provided the revised Plan is placed in the facility's operating record. The Plan must be amended whenever there is a change in conditions that would substantially affect the Plan in effect. Any amendment requires a certification by a qualified professional engineer that the revised Plan meets the requirements of 40 CFR §257.81.

2.4 Recordkeeping, Notification, and Internet Posting

In accordance with 40 CFR §257.81(d), the owner or operator must comply with the recordkeeping requirements of 40 CFR §257.105(g), the notification requirements of 40 CFR §257.106(g), and the internet posting requirements of 40 CFR §257.107(g). The corresponding Texas requirements are set out in 30 TAC Chapter 352, Subchapter K, at §352.1301 (recordkeeping), §352.1311 (notification), and §352.1321 (publicly accessible website). Section VI.I of Registration No. CCR101 requires the registrant to comply with the recordkeeping, notification, and internet posting requirements of 30 TAC Chapter 352, Subchapter K.

3.0 RUN-ON CONTROL SYSTEM

3.1 Description of Run-On Controls

Run-on to the active portion of the CBL is controlled by a combination of site topography, the landfill perimeter dike and berm system, elevated access points, and the stormwater channel located at the toe of the outboard side slope of the perimeter berm. As described in Section 3 of the 2021 Plan, the north side of the CBL occupies a topographic high and the ground surface surrounding the CBL slopes predominantly to the south. The perimeter berm deflects potential run-on, which is collected in the adjacent stormwater channel.

The final cover system constructed over the northern portion of Cell 1 slopes toward the perimeter, so stormwater from the final cover does not run on to active areas of Cell 1. Subcell 2D is likewise protected from run-on by topography and by its perimeter berm. Access points along the west boundary of the CBL are elevated relative to the adjacent grade so that run-on is not conveyed into the CBL along the access road.

3.2 Modifications to Run-On Control Features

Modifications to the interior perimeter drainage ditch and to a landfill access ramp were designed as presented in the grading plan (Appendix B) and are under construction as part of CBL waste management activities. The perimeter drainage ditch extends approximately 1,043 feet, from Station 0+00 to Station 10+43, and is configured with a six-foot bottom width, 4:1 (horizontal to vertical) inside side slopes, and 3:1 outside side slopes. The profile consists of an initial 243.43-foot reach at a minimum depth of two feet at a longitudinal slope of 0.1 percent, followed by a reach of 90 feet at a longitudinal slope of 1.35 percent, and a reach of 700.53 feet at a longitudinal slope of 0.1 percent (Appendix B, Sheets 1 and 2).

The ramp modification establishes a graded high point at elevation 393.2 feet on the west access ramp, with approach and departure grades of 6:1, 10:1, and 6:1 (Appendix B, Sheet 3). The modification functions as a grade break that maintains the elevated character of the access point and limits the conveyance of stormwater along the ramp alignment into or out of the CBL.

3.3 Compliance Assessment

The hydraulic evaluation described in Section 5 and the results presented in Section 6 confirm that, under the Design Storm, no hydraulic connection was identified between areas outside the CBL and the CBL interior. Run-on was prevented by the perimeter dike system and the elevated access points. On this basis and based on review of the topography surrounding the CBL and of the engineering controls provided for the unit, the run-on control system for the CBL has been designed and constructed to prevent flow onto the active portion of the CBL during the peak discharge from a 24-hour, 25-year storm, in compliance with 40 CFR §257.81(a)(1) and 30 TAC §352.811.

4.0 RUN-OFF CONTROL SYSTEM

4.1 Stormwater Management System Components

Run-off from active areas in Cell 1 of the CBL currently drains to the runoff channel (Figure A-1). Contact water from the Subcell 2D Contact Water Retention Pond is managed through a permanent pumping system that also routes flow to the runoff channel. The runoff channel conveys contact water to the Runoff Retention Pond.

The perimeter and interim berms of Cell 1 retain run-off that has contacted CCR within the CBL. CCR is placed in Cell 1 in a manner that directs run-off to the runoff channel. Run-off from areas of the CBL that have received intermediate or final cover that has not contacted CCR is directed into a stormwater channel and conveyed away from the CBL, as described in Section 4.2 of the 2021 Plan.

4.2 Change in CCR Program Scope Since the 2021 Plan

The runoff channel and the Runoff Retention Pond were originally permitted under the LCRA TPDES Permit No. WQ0002105000 and were initially considered as part of the CCR Program at the time the 2021 Plan was prepared. Both features have since been removed from the CCR Program but continue to be permitted under the LCRA TPDES permit. In the TPDES permit, the Runoff Retention Pond is designated as the "CBL Pond."

This change in scope is reflected in Registration No. CCR101. Table I.6 of the registration identifies CCR Unit CCR-1, the Combustion Byproduct Landfill, as the sole registered CCR unit at the facility, comprising Cell 1 and Subcell 2D as active and Subcells 2A through 2C and 3A through 3C as proposed. No channel or pond is identified as a registered CCR unit.

Because the runoff channel and the Runoff Retention Pond are not part of the CCR Program, they are not evaluated in this Plan. Management of these features continues under the LCRA TPDES permit, and run-off from the active portion of the CBL continues to be handled in a manner that complies with the National Pollutant Discharge Elimination System requirements referenced at 40 CFR §257.81(b).

4.3 Operational Water Level Management

Facility personnel monitor the water levels of the Subcell 2D Contact Water Retention Pond, the Runoff Retention Pond, and the FPP Reclaim Pond to manage surface water throughout the facility and to minimize off-site discharge from the Runoff Retention Pond. Facility personnel are on site 24 hours per day, seven days per week, and monitor the weather forecast to identify anticipated storm events and manage pumping of the Subcell 2D Contact Water Retention Pond and the Runoff Retention Pond accordingly.

The Subcell 2D Contact Water Retention Pond is equipped with a permanent pumping system that conveys flow from the pond to the runoff channel. The pump is manually operated by facility personnel to maintain appropriate freeboard in advance of each forecasted storm event. The pond is approximately 11 feet deep and must maintain a minimum water depth of 15 inches.

The Runoff Retention Pond is equipped with a permanent pump system discharging to an underground high-density polyethylene (HDPE) pipe that conveys flow to the concrete storm drainage system leading to the FPP Reclaim Pond. The Runoff Retention Pond is also authorized within the TPDES permit to discharge off-site. The pump at the Runoff Retention Pond is manually operated by facility personnel to maintain appropriate freeboard in advance of each forecasted storm event. The FPP Reclaim Pond is a settling and scrubber evaporation pond without a direct surface water discharge; water from the FPP Reclaim Pond may also be recycled through facility processing areas as appropriate.

These operational procedures are unchanged from those described in the 2021 Plan.

4.4 Compliance Assessment

The hydraulic evaluation described in Section 5 and the results presented in Section 6 confirm that the Design Storm was contained within the CBL perimeter dike system and routed to the designated outfall for the CBL, and that the Subcell 2D Contact Water Retention Pond has storage capacity in excess of the Design Storm runoff volume from its contributing drainage area.

On this basis, and taking into account the internal topography of the CBL, the perimeter and interim berms, the operational procedures described in Section 4.3, and the fact that contact water management at the facility is conducted under an individual TPDES permit, the run-off control system for the CBL has been designed and constructed to collect and control at least the water volume resulting from a 24-hour, 25-year storm, and run-off from the active portion is handled in a manner that complies with the surface water requirements referenced at 40 CFR §257.81(b). The CBL is therefore in compliance with 40 CFR §257.81(a)(2) and (b) and 30 TAC §352.811.

5.0 HYDROLOGIC AND HYDRAULIC EVALUATION

5.1 Scope of Evaluation

The perimeter dike system of the CBL and the stormwater storage capacity of the Subcell 2D Contact Water Retention Pond were evaluated using the Design Storm and the hydrologic and hydraulic properties associated with each stormwater management component. The evaluation was performed to confirm that the features used to manage stormwater from the active portion of the CBL and from Subcell 2D are able to prevent run-on from, and to collect and control the runoff volume resulting from, the Design Storm.

The following features were not evaluated in this Plan:

- The runoff channel and the Runoff Retention Pond. The CBL outflow is designed to be routed to the runoff channel and Runoff Retention Pond; however, these runoff controls are not part of the CCR Program. The runoff channel and Runoff Retention Pond are managed under the LCRA TPDES permit.
- The Subcell 2D perimeter dike system. This dike system is designed to drain Subcell 2D directly to the Subcell 2D Contact Water Retention Pond. The dike system is inspected regularly, has undergone no modifications since the 2021 review, and is located in an inactive area.

A summary comparison of the 2021 evaluation and this update is provided in Section 5.8.

5.2 Design Storm Return Period

In accordance with 40 CFR §257.81(a) and 30 TAC §352.811, run-on and run-off control systems for CCR management units must be designed to prevent flow onto the active portion during the peak discharge from, and to collect and control the water volume resulting from, a 24-hour, 25-year storm. The 24-hour, 25-year storm was therefore designated as the Design Storm and was used to evaluate the capacity of the stormwater management components.

5.3 Precipitation Data

National Oceanic and Atmospheric Administration (NOAA) Atlas 14 rainfall data was used to develop the 24-hour, 25-year Design Storm applied in evaluating the CBL perimeter dike and the Subcell 2D Contact Water Retention Pond storage volume. The most recent NOAA Atlas 14 precipitation depth for the 24-hour, 25-year design storm is 9.36 inches. The precipitation data is presented in Table A-1 in Appendix A (National Weather Service, 2018). This depth is unchanged from the value used in the 2021 Plan.

5.4 Hydrology

The hydrology of the CBL and Subcell 2D areas was represented using the Curve Number (CN) method to account for infiltration and runoff. TCEQ (2020) guidance regarding Curve Numbers considers the undeveloped site and final cover areas in determining a CN value. A conservative CN value of 94 was selected to represent the underlying Type D soil characteristics and the potentially cementitious properties of the overlying fly ash material (United States Department of Agriculture, 2021). The CN value of 94 was applied both in the hydraulic model of the CBL and in the hydrologic runoff calculations for Subcell 2D. The CN value used in the 2021 Plan was 84; the value adopted for this update is therefore more conservative.

5.5 Terrain and Design Basis

Lidar terrain data was collected in June 2026 and used to create a digital elevation model of the landfill and the surrounding area. The digital elevation model was then modified to incorporate the interior perimeter ditch and access ramp modifications presented in the grading plan (Appendix B; BBA Project No. 26991-A, July 2026). The hydraulic evaluation described in Section 5.6 therefore represents the configuration of the CBL following construction of those modifications, as described in Section 3.2.

For the purposes of the Subcell 2D calculations described in Section 5.7, the Subcell 2D Contact Water Retention Pond was assumed to contain water at a water surface elevation of 345.6 feet. This elevation was based on surveyed points around the perimeter of the pond taken in June 2026. A starting water surface elevation of 345.6 feet corresponds to approximately 4.4 acre-feet of stored water and approximately 8 acre-feet of remaining storage below the top of the pond berm (Figure A-2).

Surface roughness Manning’s n values were selected for the fly ash material and for the surrounding vegetation. A conservative n value of 0.030 was used for the surface roughness of the fly ash material, and an n value of 0.035 was selected to represent the roughness of the vegetated soil (Brunner, 2024).

5.6 CBL Perimeter Dike Evaluation Method

The CBL perimeter dike system was evaluated using a two-dimensional hydraulic model developed with the Hydrologic Engineering Center River Analysis System (HEC-RAS) software application, Version 6.6. The model produced depth, water surface elevation, and velocity information for the stormwater runoff resulting from the Design Storm. The model included infiltration based on the assigned CN value and the Manning’s n values described in Section 5.5 for regulating hydraulic flow across the surface. The model encompassed the CBL and the surrounding area so that both potential run-off and potential run-on could be evaluated.

Peak water surface elevations were examined around the perimeter dike system, including the access road along the west boundary of the CBL. The hydraulic connectivity within the HEC-RAS model was reviewed under peak flow conditions to determine whether any portion of the CBL interior was hydraulically connected to areas outside of the CBL. The hydraulic connectivity output provided a detailed map identifying any water leaving or entering the CBL.

5.7 Subcell 2D Contact Water Retention Pond Evaluation Method

The storage capacity of the Subcell 2D Contact Water Retention Pond was evaluated using hydrologic analysis based on the CN value, the precipitation depth, and the contributing drainage area. The pond was evaluated using the Natural Resources Conservation Service (NRCS) Curve Number method as set out in Chapter 2 of the National Engineering Handbook (United States Department of Agriculture, 2021). The NRCS Curve Number method is recommended by TCEQ (2020) and was used to estimate the runoff volume from the Design Storm. This volume was compared with the stage-storage curve for the pond presented in Figure A-2 to confirm that the pond has capacity to store the Design Storm runoff.

Contributing Drainage Area

The contributing drainage area for the Subcell 2D Contact Water Retention Pond is delineated on Figure A-1. The total contributing drainage area of approximately 8 acres was estimated based on design contours.

Runoff Volume Computation

The runoff depth in inches was computed using the following equations from Chapter 2 of the National Engineering Handbook (United States Department of Agriculture, 2021):

$$Q = (P - 0.2S)^2 / (P + 0.8S)$$
$$S = (1000 / CN) - 10$$

where Q is the runoff depth in inches, P is the precipitation depth in inches, S is the potential maximum retention after precipitation begins in inches, and CN is the Curve Number. The following values were applied:

- CN was set to 94, based on a conservative estimate of the underlying Type D soil and the possible cementitious quality of fly ash;
- P was set to 9.36 inches;
- S was calculated to be 0.64 inches; and
- the runoff depth, Q, was calculated to be 8.64 inches, or 0.72 feet.

The Design Storm runoff volume for the Subcell 2D drainage area was computed as the product of the contributing drainage area and the runoff depth:

Design Storm Runoff Volume = 8 acres × 0.72 feet = 5.8 acre-feet

5.8 Comparison with the 2021 Evaluation

The table below summarizes the principal differences between the evaluation presented in the 2021 Plan and the evaluation presented in this update.

Table 1. Comparison of the 2021 and 2026 Hydrologic and Hydraulic Evaluations.

Element	2021 Plan	2026 Update
CCR units evaluated	runoff channel, Runoff Retention Pond, and Subcell 2D Contact Water Retention Pond	CBL perimeter dike system and Subcell 2D Contact Water Retention Pond
Design storm	25-year, 24-hour	25-year, 24-hour (unchanged)
Precipitation depth	9.36 inches (NOAA Atlas 14)	9.36 inches (NOAA Atlas 14; unchanged)
Curve Number	84	94 (more conservative)
Runoff volume method	NRCS/SCS Curve Number method (TR-55)	NRCS Curve Number method (NEH Chapter 2)
Peak flow / hydraulics	Rational Method; Manning's equation for the runoff channel	Two-dimensional HEC-RAS model (Version 6.6) of the CBL and surrounding area
Terrain basis	2013 aerial survey and 2008 lidar	June 2026 lidar, modified to reflect the grading plan (Appendix B)
Subcell 2D pond result	Runoff 4.83 ac-ft vs. 12.40 ac-ft available storage	Runoff 5.8 ac-ft vs. 8 ac-ft available storage above the surveyed water surface

6.0 RESULTS

6.1 CBL Perimeter Dike System

Evaluation of the CBL Perimeter Dike System involved routing the Design Storm through the CBL to the designated outfall for the CBL. The HEC-RAS hydraulic model was reviewed using the maximum water surface elevations produced by the Design Storm. Hydraulic connectivity was checked around the perimeter of the CBL for evidence of flow moving over the top of the perimeter dike system. No such evidence was observed. The CBL perimeter dike contained the 24-hour, 25-year storm and routed flow to the designated outfall for the CBL.

Figure A-3 presents a detailed portion of the hydraulic connectivity map used to evaluate CBL run-off and run-on. The image is based on the peak water surface elevations over the course of the entire Design Storm. Figure A-4 presents a broad view of the hydraulic connectivity map around the entire CBL perimeter. Both images demonstrate the CBL is hydraulically separated from the surrounding area. The CBL outfall region does show hydraulic connectivity with the runoff channel conveying stormwater away from the CBL. These results confirm that the Design Storm was contained within the perimeter dike system and that run-on from the Design Storm into the CBL area was prevented by the perimeter dike system.

6.2 Subcell 2D Contact Water Retention Pond

The storage capacity of the Subcell 2D Contact Water Retention Pond was evaluated to determine whether the pond has sufficient storage volume for the Design Storm runoff from the Subcell 2D drainage area. The Pond was evaluated based on capacity and total Design Storm volume rather than stormwater routing through a permitted outfall. The stage-storage curve for the pond is presented in Figure A-2. Available freeboard resulting from the Design Storm event was calculated based on a top of pond berm elevation of 352 feet. The results are summarized below.

- Contributing drainage area for the Subcell 2D Contact Water Retention Pond = 8 acres
- Initial pond water surface elevation and storage = 345.6 feet / 4.4 acre-feet
- Top of pond berm elevation and maximum storage = 352.0 feet / 12.4 acre-feet
- Available storage volume = 12.4 – 4.4 = 8 acre-feet
- Total 24-hour, 25-year runoff volume for the Subcell 2D drainage area = 5.8 acre-feet
- Available storage remaining after the Design Storm = 8 – 5.8 = 2.2 acre-feet
- Final pond water surface elevation = approximately 350.5 feet
- Pond freeboard after the Design Storm = 1.5 feet
- **Result: available storage volume exceeds the Design Storm runoff volume**

Comparison of the Subcell 2D Design Storm runoff volume of 5.8 acre-feet to the available storage in the Subcell 2D Contact Water Retention Pond of approximately 8 acre-feet confirms that the pond has adequate storage capacity for the Design Storm event. The pond stage-storage relationship is presented in Figure A-2.

7.0 CONCLUSIONS

The results presented in this Plan demonstrate that the stormwater management system for the active portion of the CBL is adequate to control run-on to, and to collect and control run-off from, a 24-hour, 25-year storm event.

A detailed examination of the maximum water surface elevations within the perimeter dike system showed no indication of stormwater leaving the CBL other than at the designated outfall per design, and no indication of run-on entering the CBL. The storage capacity of the Subcell 2D Contact Water Retention Pond was also evaluated and found to be adequate to contain the 24-hour, 25-year storm runoff from the Subcell 2D drainage area, with approximately 2.2 acre-feet of storage and 1.5 feet of freeboard remaining after the Design Storm.

In summary, the stormwater management system serving the active portion of the Combustion Byproduct Landfill at the LCRA Sam Seymour Fayette Power Project is anticipated to prevent flow onto the active portion of the unit during the peak discharge from a 24-hour, 25-year storm and to collect and control the water volume resulting from that event. The run-on and run-off control systems for the CBL therefore meet the requirements of 40 CFR §257.81(a) and (b) and 30 TAC §352.811.

8.0 REFERENCES

Brunner, G. W. (2024). HEC-RAS 2D User’s Manual (Version 6.6). U.S. Army Corps of Engineers, Hydrologic Engineering Center. https://www.hec.usace.army.mil/confluence/rasdocs/r2dum/latest, accessed July 2026.

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APPENDIX A

Supporting Documentation

Table A-1. NOAA Precipitation Depth Estimates for the CBL (National Weather Service, 2018).

Figure A-1. Combustion Byproduct Landfill Contributing Drainage Areas.

Figure A-2. Subcell 2D Contact Water Retention Pond Stage-Storage Curve.

Figure A-3. Detailed image of hydraulic connectivity at the perimeter dike system of the CBL. Hydraulic connections (blue lines) do not cross the perimeter dike boundary.

Figure A-4. Broad view of hydraulic connectivity map for the CBL showing a gap between interior hydraulic (blue) connections and the area outside the CBL.

Table A-1. NOAA Precipitation Depth Estimates for the CBL (National Weather Service, 2018).

NOAA Atlas 14, Volume 11, Version 2
Location name: La Grange, Texas, USA*
Latitude: 29.9073°, Longitude: -96.7566°
Elevation: 378 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite
NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

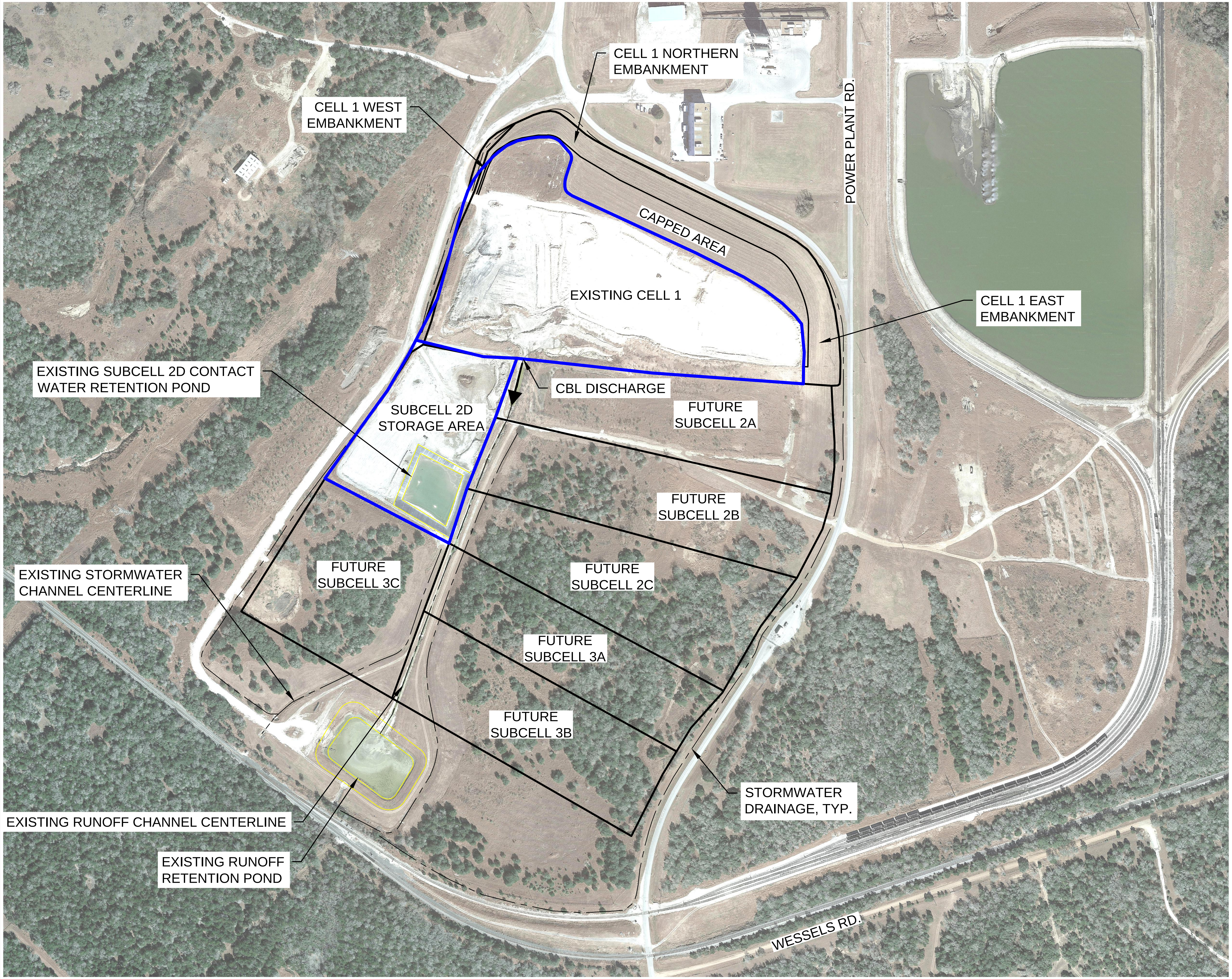
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.470** (0.356-0.621)	**0.543** (0.416-0.713)	**0.665** (0.507-0.874)	**0.764** (0.573-1.02)	**0.898** (0.652-1.23)	**1.00** (0.707-1.41)	**1.10** (0.759-1.60)	**1.20** (0.810-1.79)	**1.35** (0.874-2.07)	**1.45** (0.920-2.30)
10-min	**0.746** (0.565-0.986)	**0.864** (0.661-1.13)	**1.06** (0.807-1.39)	**1.22** (0.914-1.62)	**1.44** (1.04-1.97)	**1.60** (1.13-2.26)	**1.76** (1.22-2.56)	**1.92** (1.29-2.86)	**2.13** (1.38-3.27)	**2.28** (1.44-3.60)
15-min	**0.946** (0.716-1.25)	**1.09** (0.835-1.43)	**1.33** (1.01-1.75)	**1.53** (1.14-2.03)	**1.79** (1.30-2.46)	**1.99** (1.41-2.80)	**2.19** (1.51-3.17)	**2.39** (1.61-3.56)	**2.66** (1.73-4.10)	**2.87** (1.82-4.54)
30-min	**1.35** (1.02-1.78)	**1.54** (1.18-2.03)	**1.88** (1.43-2.47)	**2.15** (1.61-2.86)	**2.51** (1.82-3.43)	**2.78** (1.96-3.91)	**3.05** (2.10-4.42)	**3.34** (2.24-4.97)	**3.73** (2.43-5.76)	**4.05** (2.56-6.39)
60-min	**1.76** (1.33-2.32)	**2.03** (1.56-2.67)	**2.49** (1.90-3.27)	**2.86** (2.14-3.81)	**3.36** (2.43-4.60)	**3.73** (2.64-5.26)	**4.12** (2.84-5.97)	**4.54** (3.06-6.77)	**5.15** (3.35-7.94)	**5.64** (3.57-8.91)
2-hr	**2.13** (1.62-2.79)	**2.52** (1.94-3.26)	**3.15** (2.42-4.11)	**3.69** (2.79-4.88)	**4.43** (3.23-6.02)	**5.01** (3.55-7.00)	**5.62** (3.90-8.09)	**6.33** (4.28-9.37)	**7.38** (4.81-11.3)	**8.25** (5.24-13.0)
3-hr	**2.33** (1.78-3.04)	**2.81** (2.16-3.60)	**3.57** (2.74-4.62)	**4.22** (3.20-5.56)	**5.16** (3.78-6.98)	**5.89** (4.20-8.21)	**6.69** (4.66-9.60)	**7.64** (5.18-11.3)	**9.06** (5.92-13.8)	**10.3** (6.53-16.1)
6-hr	**2.67** (2.06-3.46)	**3.32** (2.54-4.17)	**4.29** (3.32-5.50)	**5.17** (3.95-6.76)	**6.46** (4.77-8.70)	**7.52** (5.40-10.4)	**8.71** (6.09-12.4)	**10.1** (6.88-14.8)	**12.2** (8.03-18.6)	**14.0** (8.97-21.8)
12-hr	**2.99** (2.32-3.85)	**3.82** (2.91-4.69)	**5.00** (3.89-6.35)	**6.13** (4.72-7.96)	**7.85** (5.86-10.5)	**9.32** (6.76-12.9)	**11.0** (7.75-15.6)	**13.0** (8.88-18.9)	**16.0** (10.5-24.2)	**18.6** (11.9-28.7)
24-hr	**3.33** (2.61-4.25)	**4.36** (3.31-5.24)	**5.77** (4.52-7.26)	**7.18** (5.56-9.25)	**9.36** (7.06-12.5)	**11.3** (8.28-15.6)	**13.6** (9.59-19.1)	**16.1** (11.0-23.2)	**19.9** (13.2-29.8)	**23.1** (14.9-35.5)
2-day	**3.73** (2.94-4.73)	**4.98** (3.79-5.88)	**6.66** (5.25-8.31)	**8.38** (6.55-10.7)	**11.1** (8.48-14.8)	**13.6** (10.1-18.7)	**16.4** (11.7-22.9)	**19.4** (13.3-27.7)	**23.6** (15.6-34.9)	**26.9** (17.4-41.0)
3-day	**4.05** (3.21-5.11)	**5.41** (4.14-6.38)	**7.26** (5.75-9.01)	**9.12** (7.16-11.6)	**12.0** (9.24-16.0)	**14.7** (10.9-20.2)	**17.7** (12.6-24.6)	**20.8** (14.4-29.6)	**25.1** (16.7-37.1)	**28.5** (18.4-43.3)
4-day	**4.34** (3.45-5.46)	**5.74** (4.44-6.80)	**7.69** (6.12-9.53)	**9.61** (7.56-12.2)	**12.6** (9.66-16.7)	**15.3** (11.3-20.8)	**18.3** (13.0-25.3)	**21.4** (14.8-30.4)	**25.8** (17.1-38.0)	**29.2** (19.0-44.3)
7-day	**5.04** (4.04-6.30)	**6.49** (5.10-7.74)	**8.57** (6.87-10.6)	**10.5** (8.35-13.3)	**13.5** (10.4-17.7)	**16.1** (12.0-21.7)	**19.0** (13.6-26.2)	**22.1** (15.4-31.3)	**26.6** (17.8-39.1)	**30.3** (19.7-45.7)
10-day	**5.62** (4.52-7.00)	**7.10** (5.65-8.52)	**9.29** (7.48-11.4)	**11.3** (8.99-14.2)	**14.3** (11.0-18.6)	**16.8** (12.5-22.6)	**19.6** (14.1-27.0)	**22.8** (15.9-32.1)	**27.3** (18.3-40.0)	**31.1** (20.2-46.7)
20-day	**7.31** (5.92-9.04)	**8.93** (7.25-10.8)	**11.4** (9.32-14.0)	**13.6** (10.9-17.0)	**16.8** (12.9-21.6)	**19.3** (14.4-25.6)	**22.0** (15.9-30.0)	**24.9** (17.5-35.0)	**29.2** (19.7-42.5)	**32.6** (21.4-48.7)
30-day	**8.71** (7.09-10.7)	**10.4** (8.58-12.7)	**13.2** (10.8-16.2)	**15.6** (12.5-19.3)	**18.8** (14.6-24.1)	**21.4** (16.0-28.2)	**24.0** (17.4-32.6)	**26.8** (18.9-37.4)	**30.8** (20.8-44.6)	**33.9** (22.2-50.5)
45-day	**10.7** (8.78-13.2)	**12.6** (10.5-15.4)	**15.8** (13.0-19.2)	**18.4** (14.8-22.7)	**21.8** (16.9-27.8)	**24.4** (18.3-32.1)	**27.0** (19.7-36.5)	**29.7** (21.0-41.3)	**33.4** (22.6-48.1)	**36.2** (23.8-53.6)
60-day	**12.6** (10.3-15.3)	**14.6** (12.2-17.8)	**18.1** (15.0-22.0)	**20.9** (16.9-25.7)	**24.5** (19.1-31.2)	**27.2** (20.5-35.6)	**29.8** (21.8-40.2)	**32.4** (22.9-44.9)	**35.8** (24.3-51.5)	**38.3** (25.2-56.6)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.



N

APPROXIMATE SCALE IN FEET

0 400 800

LEGEND:

CONTRIBUTING DRAINAGE AREAS

DIRECTION OF FLOW

NOTES:

LOCATIONS SHOWN ARE APPROXIMATE.

AERIAL BACKGROUND PROVIDED BY PLEX-EARTH USING GOOGLE MAPS (TAKEN 1-2022).

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED PROFESSIONAL ENGINEER

Daniel B. Bullock
August 11, 2026

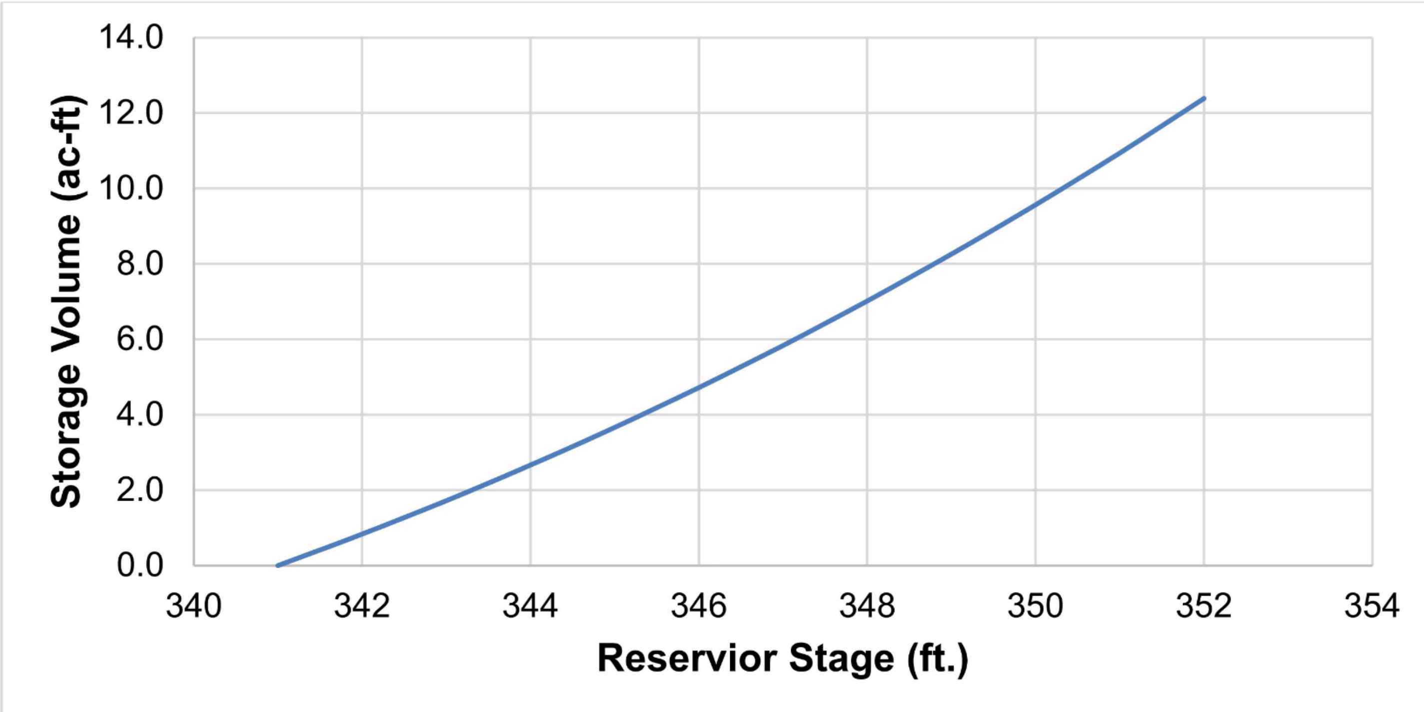
LCRA - Fayette Power Plant
5 Year Hydro Report

Figure A-1
COMBUSTION BYPRODUCTS LANDFILL CONTRIBUTING DRAINAGE AREAS

PROJECT: 26991-A	BY: RCAD-RR	DATE: AUG 2026	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 08/11/26 - 2:42pm, Plotted by: Admin
Drawing Path: K:\clients\bba\LCRA\Fayette PP\, Drawing Name: C-ST-PL104.dwg



LOWER COLORADO RIVER AUTHORITY

FIGURE A-2
Subcell 2D
Contact Water Retention Pond
Stage Storage Curve

PROJECT: 26991-A	BY: SLB	DATE: 7/30/2026	CHECKED: MS

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

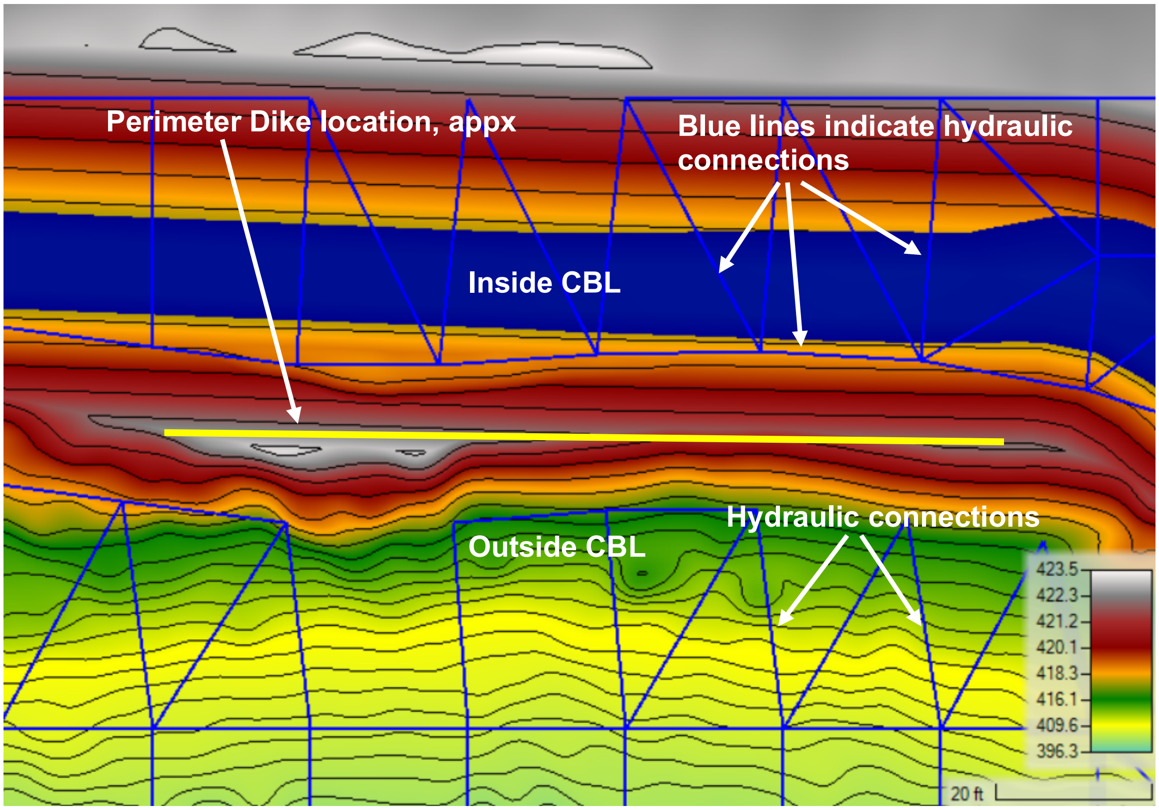


Figure A-3. Detailed image of hydraulic connectivity at the perimeter dike system of the CBL. Hydraulic connections (blue lines) do not cross the perimeter dike boundary.

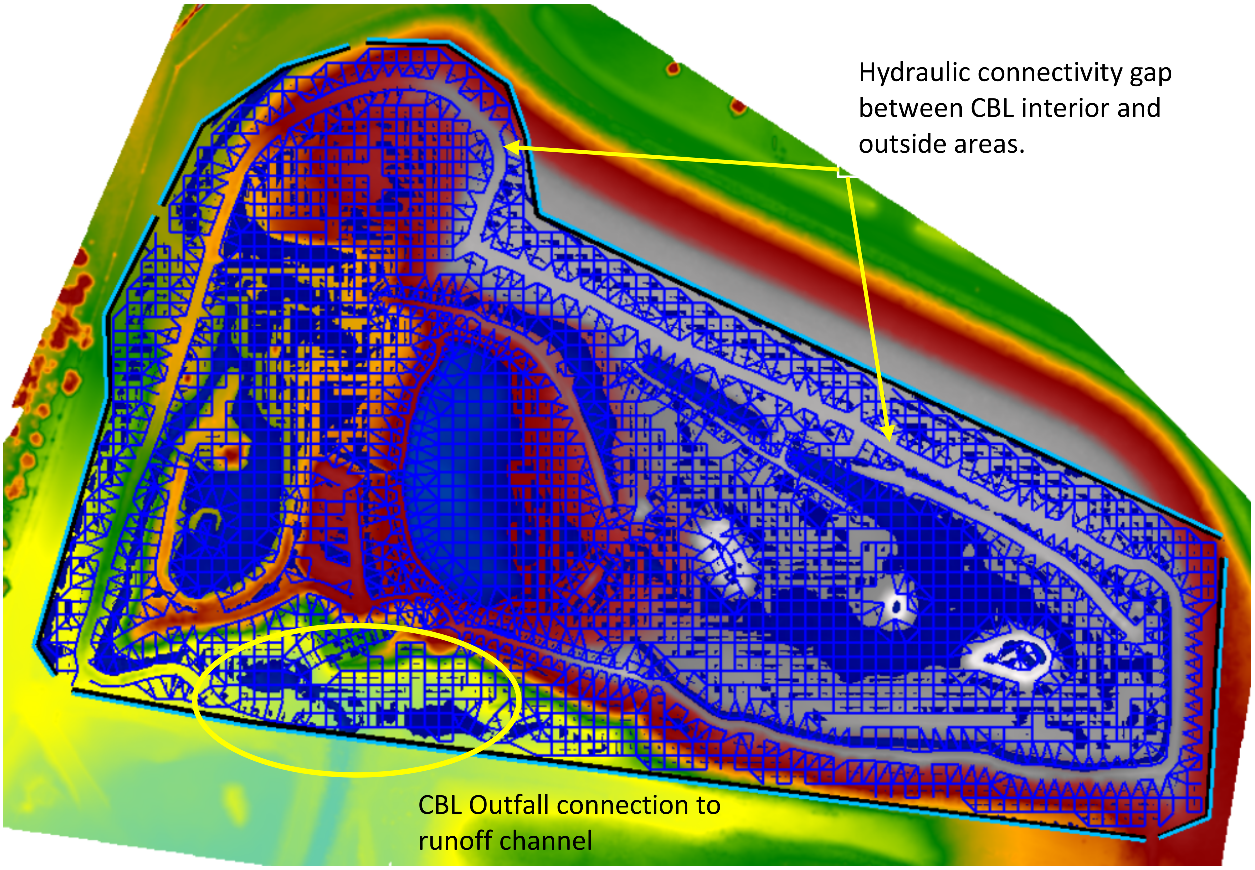


Figure A-4. Broad view of hydraulic connectivity map for the CBL showing a gap between interior hydraulic (blue) connections and the area outside the CBL.

APPENDIX B

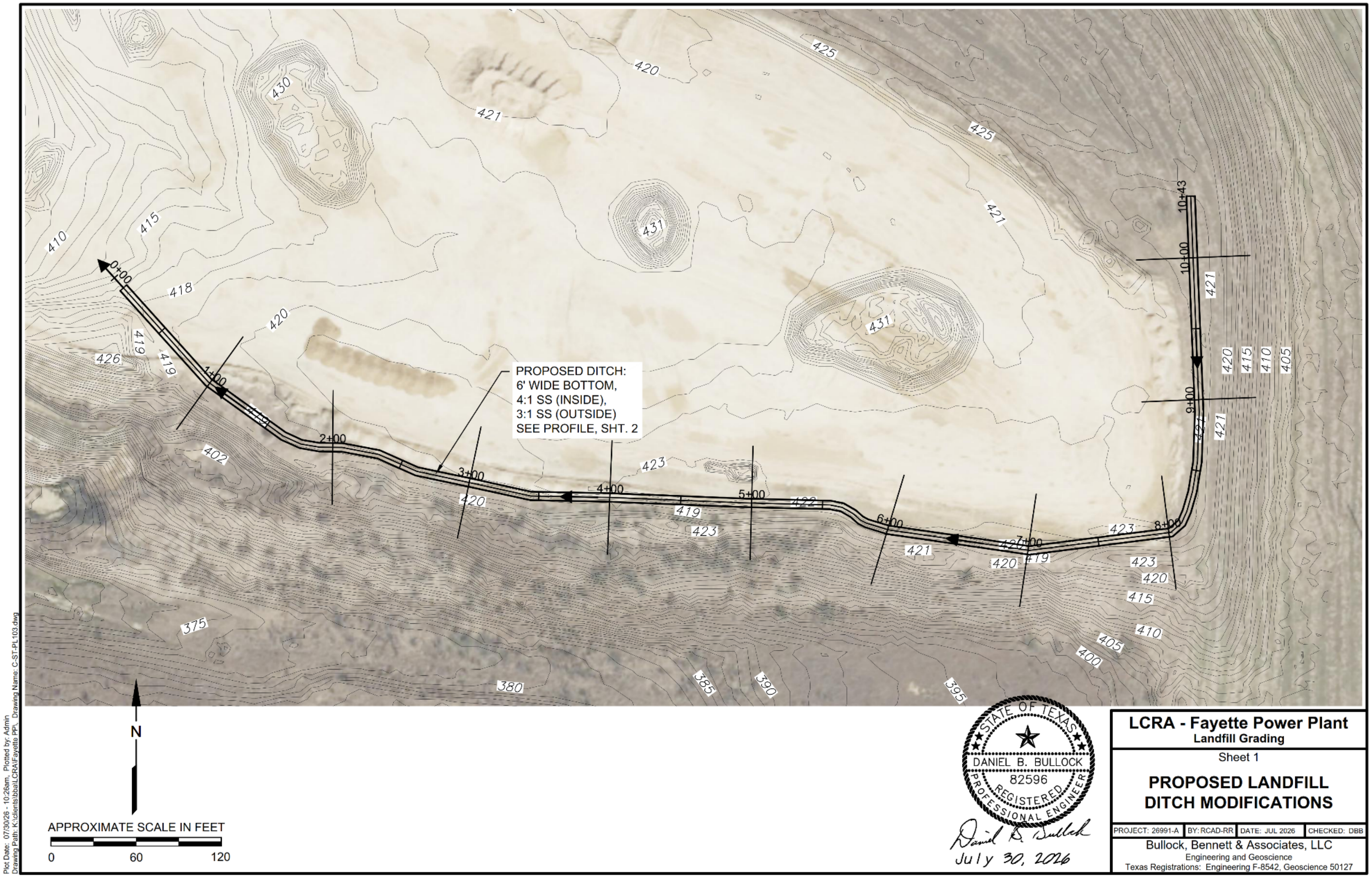
Grading Plan

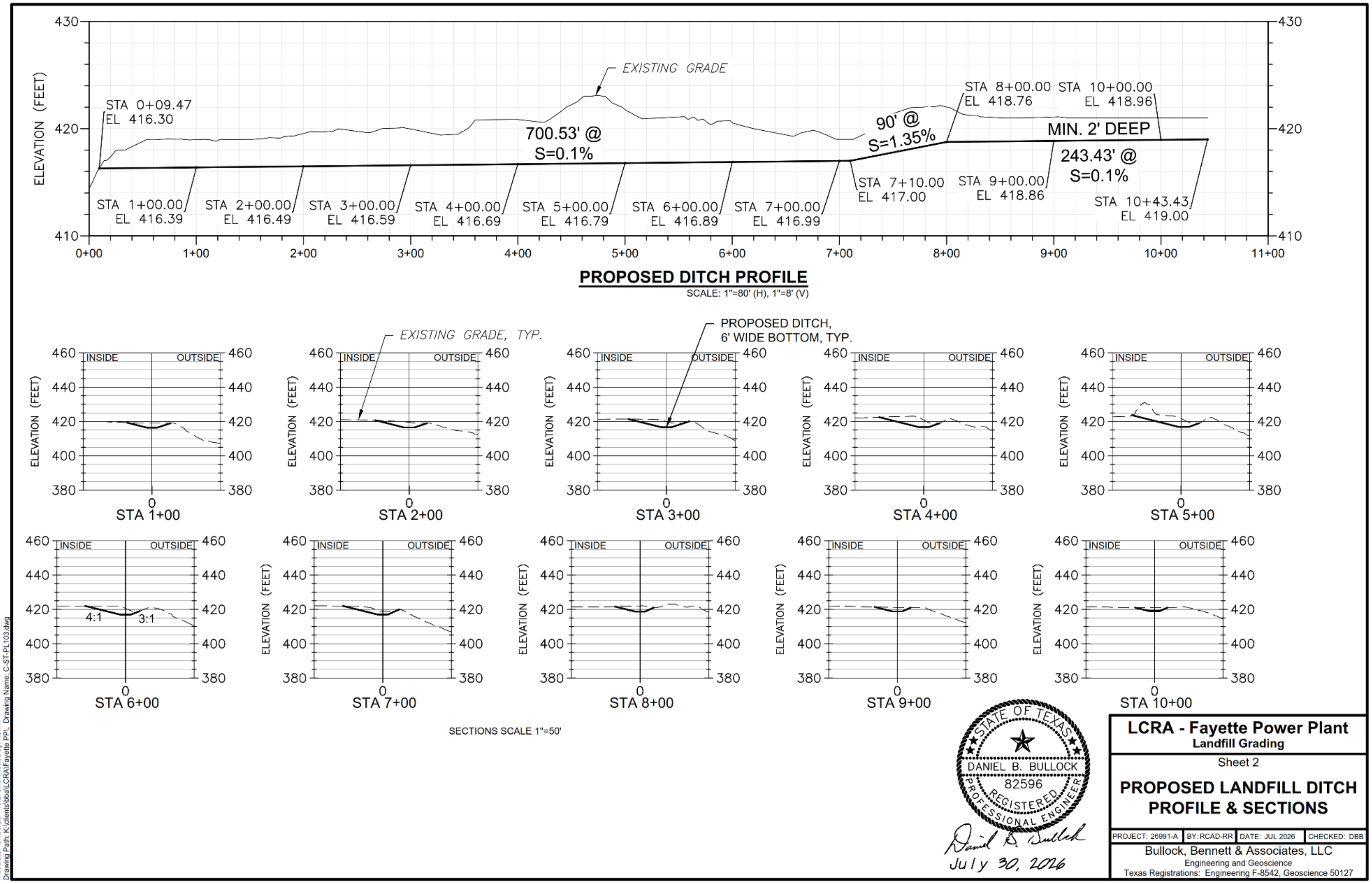
BBA Project No. 26991-A – Drawing No. C-ST-PL103 – July 2026

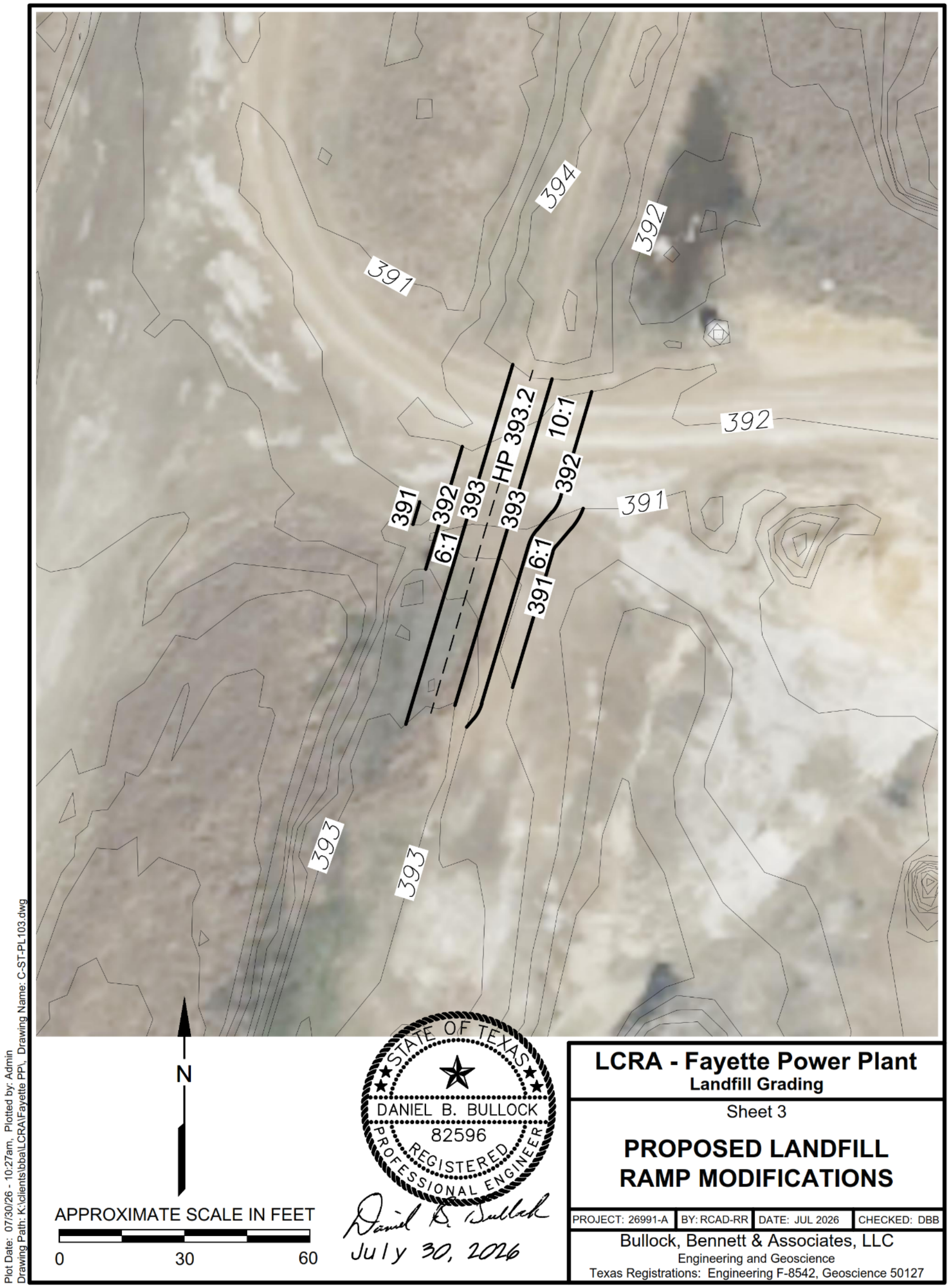
Sheet 1 – Proposed Landfill Ditch Modifications, Plan View (aerial base map)

Sheet 2 – Proposed Landfill Ditch Profile and Sections

Sheet 3 – Proposed Landfill Ramp Modifications


PROPOSED DITCH:
6' WIDE BOTTOM,
4:1 SS (INSIDE),
3:1 SS (OUTSIDE)
SEE PROFILE, SHT. 2
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
10+43
N
APPROXIMATE SCALE IN FEET
0
60
120
STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER
July 30, 2026
LCRA - Fayette Power Plant
Landfill Grading
Sheet 1
PROPOSED LANDFILL
DITCH MODIFICATIONS
PROJECT: 26991-A
BY: RCAD-RR
DATE: JUL 2026
CHECKED: DBB
Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127


ELEVATION (FEET)
EXISTING GRADE
STA 0+09.47
EL 416.30
700.53' @
S=0.1%
90' @
S=1.35%
STA 8+00.00
EL 418.76
STA 10+00.00
EL 418.96
MIN. 2' DEEP
243.43' @
S=0.1%
STA 1+00.00
EL 416.39
STA 2+00.00
EL 416.49
STA 3+00.00
EL 416.59
STA 4+00.00
EL 416.69
STA 5+00.00
EL 416.79
STA 6+00.00
EL 416.89
STA 7+00.00
EL 416.99
STA 7+10.00
EL 417.00
STA 9+00.00
EL 418.86
STA 10+43.43
EL 419.00
PROPOSED DITCH PROFILE
SCALE: 1"=80' (H), 1"=8' (V)
EXISTING GRADE, TYP.
PROPOSED DITCH,
6' WIDE BOTTOM, TYP.
INSIDE
OUTSIDE
4:1
3:1
STA 1+00
STA 2+00
STA 3+00
STA 4+00
STA 5+00
STA 6+00
STA 7+00
STA 8+00
STA 9+00
STA 10+00
SECTIONS SCALE 1"=50'
STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER
July 30, 2026
LCRA - Fayette Power Plant
Landfill Grading
Sheet 2
PROPOSED LANDFILL DITCH
PROFILE & SECTIONS
PROJECT: 26991-A
BY: RCAD-RR
DATE: JUL 2026
CHECKED: DBB
Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127


394
392
391
392
HP 393.2
10:1
392
391
392
393
393
6:1
6:1
391
391
393
393
N
APPROXIMATE SCALE IN FEET
0
30
60
STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER
Daniel B. Bullock
July 30, 2026
LCRA - Fayette Power Plant
Landfill Grading
Sheet 3
PROPOSED LANDFILL
RAMP MODIFICATIONS
PROJECT: 26991-A
BY: RCAD-RR
DATE: JUL 2026
CHECKED: DBB
Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127
Plot Date: 07/30/26 - 10:27am, Plotted by: Admin
Drawing Path: K:\clients\bba\LCRA\Fayette PP\, Drawing Name: C-ST-PL103.dwg