Last Energy US

Enclosure 3 – Environmental Report

Caldwell LWA Application

October 2026

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Document ID	US0203-REG-RPT-0005
This document contains:	
Commercially Sensitive Information	Yes
Export-controlled Information	No
Controlled Unclassified Information	No

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Record of Change

Document Owner	Max Barron		
Document Owner Title	Associate Developer		
Quality Assurance Level	3	**Date of Last Audit**	N/A

VERSION	DESCRIPTION	APPROVED	DATE
0.1	First Draft	K Zabava	2026-09-02
0.2	Internal Review	K. Zabava	2026-09-22
1.0	Issued Draft to NRC	K. Zabava	2026-09-29
1.1	Final review	M. Barron	2026-10-19
2.0	Formal Issue	K. Zabava	2026-10-20

RELEASE VERSION	ROLE	PRINTED NAME	SIGNATURE	DATE
2.0	Document Owner	Max Barron		2026-10-2(
2.0	Department Head	Adam Lenarz	 Adam Lenarz (Oct 20, 2026 13:18:16 CDT)	2026-10-2(

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Abbreviations and Acronyms

CFR	Code of Federal Regulations
GHG	greenhouse gas
LJAES	LJA Environmental Services
LWA	limited work authorization
NRC	U.S. Nuclear Regulatory Commission

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1. Proposed Action, Need, and Scope

This Environmental Report evaluates the environmental effects of the foundation activities requested under the Caldwell Site - Part One of a Construction Permit Application and describes the impacts of the associated preconstruction activities. The activities requested under the Limited Work Authorization (LWA) are installation of the steel liner, driving of the steel H-piles, and placement of bentonite grout. Clearing and grubbing, augering, bentonite-slurry use, and pile-driving-frame installation are described as associated preconstruction or support activities but are not requested under the LWA. There are no nuclear safety considerations associated with this application.

The proposed federal action is U.S. Nuclear Regulatory Commission (NRC) issuance of a LWA under 10 CFR 50.10(d) for the requested activities identified above. The impacts of the requested activities are evaluated separately from the impacts of the associated preconstruction activities.

Although the associated preconstruction activities are not proposed for authorization under the LWA, their environmental impacts are described in this report, and their cumulative impacts are evaluated together with the impacts of the requested activities. This scope supports the request under 10 CFR 50.10(d)(3)(ii) and follows 10 CFR 51.45 and 51.49(b) and (f). The environmental report for facility construction and operation will accompany Part Two of the application. The requested activities in this Part One application are necessary to support the Part Two construction sequence.

Last Energy determined that no additional mitigation measures are warranted because the activities requested under the Caldwell LWA would cause only localized, primarily short-term environmental effects. Applicable permit conditions and other environmental compliance requirements will be implemented.

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2. Application Site and Disturbance Area

This section defines the areas used in the environmental analysis.

The application site is the approximately 44-acre property at 439 Mary Lane in Maxwell, Caldwell County, Texas. The LJA Environmental Services (LJAES) waters delineation [1], threatened and endangered species [2], and cultural resources [3] environmental studies evaluated this entire area.

The disturbance area is the portion of the application site physically affected by the requested, preconstruction, and support activities.

The work area is the portion of the disturbance area where the foundation will be installed.

Figure 2-1 presents an illustrative site layout showing an example location and scale of work.

Figure 2-1: Example Site-Layout Plans



3. Existing Environmental Conditions

This section summarizes existing conditions within the application site. LJAES evaluated aquatic resources, protected species and habitat, cultural resources, and current and historical site use. Sections 3.1 through 3.4 present the findings.

3.1. Waters of the United States and Wetlands

LJAES delineated aquatic resources within the application site on August 23, 2026 [1]. LJAES identified no wetlands. It identified one aquatic feature: an approximately 0.15-acre man-made freshwater pond. Figure 3-1 shows the pond's location within the application site.

LJAES concluded that the pond was created in uplands, has no direct connection to waters of the United States, and would likely be non-jurisdictional.

Federal Emergency Management Agency mapping places a small part of the southwestern application site within the mapped 100-year floodplain of the Dry Branch watershed. Figure 3-2 shows the floodplain in relation to the application site. Surface water generally drains south toward Dry Branch.

The proposed activities do not require disturbance of the pond or mapped floodplain. Neither feature is proposed for disturbance.

Figure 3-1: Application Site and Man-Made Pond

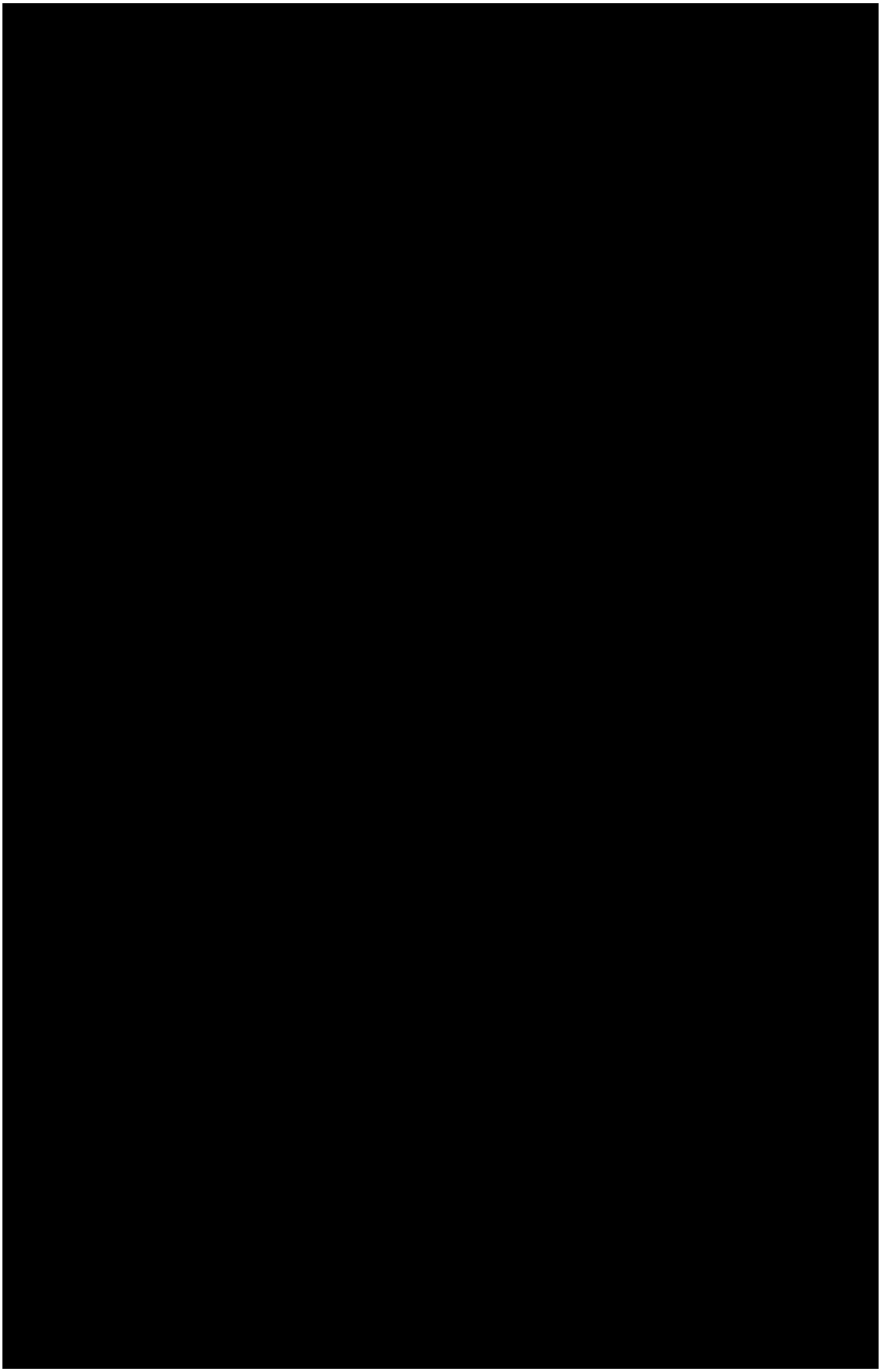
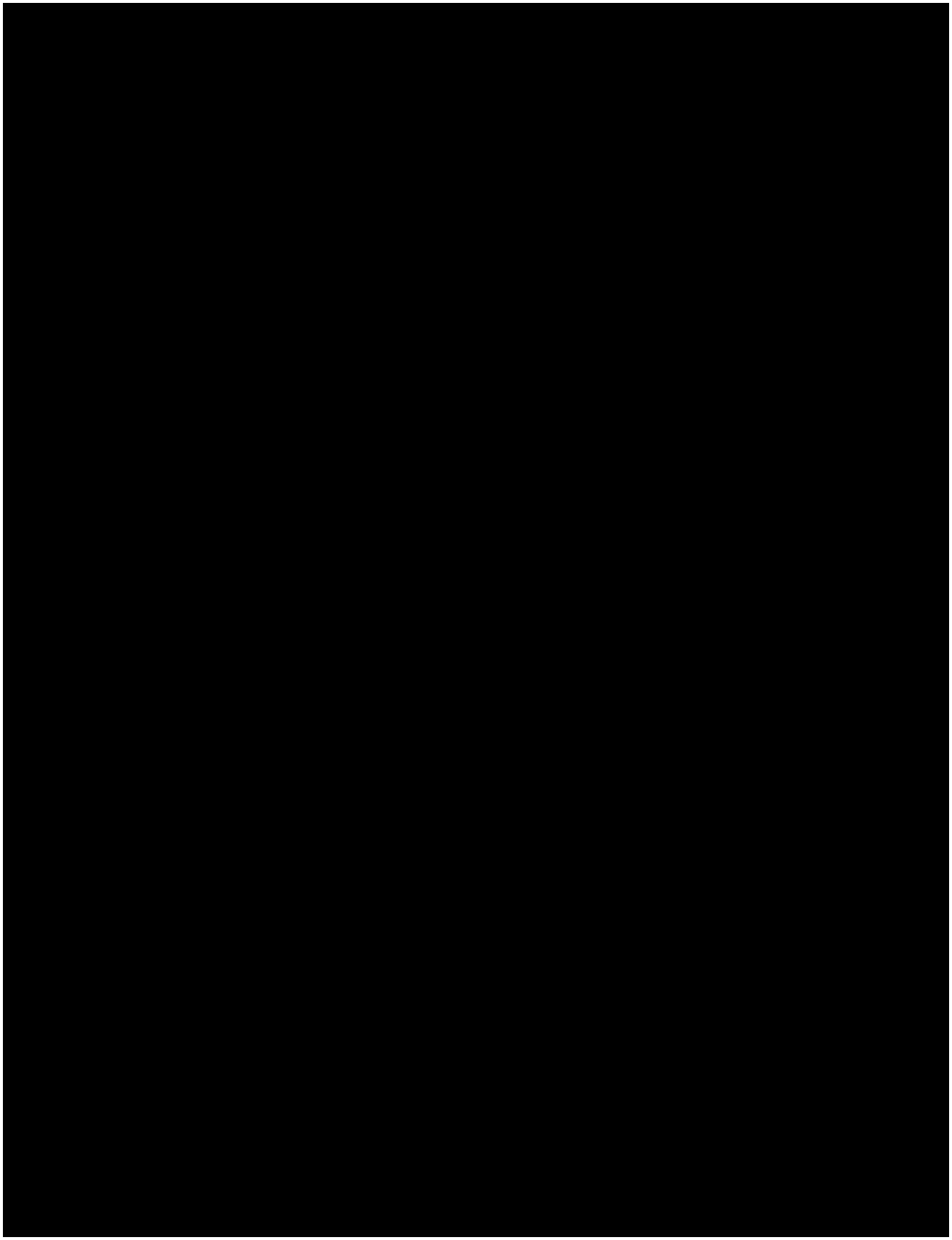


Figure 3-2: Application Site and 100-Year Floodplain



3.2. Threatened and Endangered Species and Habitat

LJAES evaluated the application site for the potential occurrence of, and suitable habitat for, the piping plover, rufa red knot, whooping crane, bald eagle, Guadalupe fatmucket, Guadalupe orb, and monarch butterfly [2]. LJAES identified no designated or proposed critical habitat within the application site.

The application site consists primarily of agricultural fields, with a homestead and limited forested habitat. Figure 3-3 shows representative agricultural, forested-upland, and aquatic conditions observed in 2026.

The site lacks suitable coastal habitat for the piping plover and rufa red knot, large wetlands or marshes for the whooping crane, and streams for the Guadalupe fatmucket and Guadalupe orb. Open pasture provides limited monarch butterfly habitat. The site also lacks large trees suitable for bald eagle nesting or perching. LJAES observed no bald eagles or nests.

LJAES did not conduct a comprehensive migratory-bird or active-nest survey. The assessment also excluded state-listed species. These limitations do not change LJAES's conclusion for the federally listed and proposed species assessed. Section 7 identifies applicable environmental requirements, the status of compliance, and any remaining compliance actions.

LJAES concluded that work on the property would not affect the assessed species or designated critical habitat.

Figure 3-3: Representative 2026 Site and Habitat Conditions



3.3. Cultural Resources

LJAES's cultural resources desktop review identified no previously documented archaeological sites, cemeteries, National Register of Historic Places properties, or State Antiquities Landmarks within or immediately adjacent to the application site [3]. Four recorded archaeological sites and two cemeteries lie within approximately one mile of the application site. LJAES concluded that development of the property would not affect them.

Historical maps and photographs show predominantly agricultural use since at least the mid-twentieth century. A house and at least two potentially historic agricultural outbuildings occupy the eastern part of the property. No cultural resources survey has covered the property.

LJAES identified at least moderate potential for undocumented prehistoric resources. It identified high potential for historic-age architectural or archaeological resources.

For this analysis, Last Energy assumes that the disturbance area intersects both potential-resource areas. LJAES recommends a formal survey of areas subject to federal jurisdiction. Section 7 addresses the survey and associated consultation.

3.4. Current and Historical Site Use and Recognized Environmental Conditions

This section describes current and historical site use and the results of LJAES's Phase I Environmental Site Assessment [4].

The approximately 44-acre application site consists primarily of agricultural and undeveloped land and includes an abandoned or vacant rural homestead. Historical sources indicate that the property has supported agricultural use and a residential homestead for approximately 140 years.

During its August 23, 2026, site reconnaissance, LJAES confirmed the agricultural and undeveloped land uses and observed existing structures, two corroded and unlabeled 55-gallon drums, and wood and metal debris. LJAES observed no leaks, staining, odors, or other evidence of a release associated with the drums or debris.

LJAES identified no recognized environmental conditions or controlled recognized environmental conditions. Based on its findings, LJAES concluded that additional environmental investigation did not appear warranted.

4. Environmental Effects of the Proposed Activities and Mitigation

This section evaluates the environmental effects attributable to the activities requested under the LWA and describes the impacts of associated preconstruction and support activities. Effects attributable to the requested LWA activities are evaluated separately in accordance with 10 CFR 51.49(f). Impacts from associated preconstruction and support activities are described to support the cumulative-effects analysis required by 10 CFR 51.45(c).

Table 4-1 presents the activities in their anticipated order of performance and identifies the regulatory treatment applicable to each activity.

Table 4-1: Activity Sequence and Regulatory Treatment

Step	Function	Regulatory treatment	Requested under the LWA?
1. Clearing and grubbing	Prepares the work area surface	Site preparation excluded from construction by 10 CFR 50.10(a)(2)(iii).	No. Context only
2. Augering the foundation opening	Excavates the opening that receives the liner and the supported structure	Excavation, excluded from construction by 10 CFR 50.10(a)(2)(v)	No. Context only
3. Bentonite slurry during augering	Maintains excavation wall integrity while the opening is formed	Process material used during an excluded activity	No. Context only
4. Liner installation	Provides permanent lateral earth retention for the foundation opening and contains the grout placed around the piles at the base.	Placement of a permanent retaining wall within an excavation under 10 CFR 50.10(d)(1)	Yes
5. Pile-driving frame installation	A temporary frame positions and guides the pile-driving equipment.	Construction equipment. Not an installed structure, system, or component	No. Context only
6. Driving piles	Piles are driven below the foundation opening.	Driving of piles for the supported structure, constituting construction under 10 CFR 50.10(a)(1) and requested for authorization under under 10 CFR 50.10(d)(1)	Yes
7. Grout backfill	Fills spaces around the piles at the base of the lined foundation opening.	Subsurface preparation and backfill of grout for the supported structure, constituting construction under 10 CFR 50.10(a)(1) and requested for authorization under 10 CFR 50.10(d)(1).	Yes

4.1. Environmental Effects

The following subsections evaluate the environmental effects on affected resources. References to the sequence numbers in Table 4-1 identify the activities contributing to each effect.

4.1.1. Land, Soil, Water, and Minerals

Step 1 would remove vegetation and disturb surface soils. Step 2 would disturb subsurface soils and generate spoil. Step 3 would consume water and generate residual slurry. Steps 4 and 5 could cause localized staging disturbance or equipment releases. Step 6 would alter subsurface soils. Step 7 would consume water and construction materials and could generate residual material.

Section 3.1 identifies no wetlands within the application site. The activities do not require disturbance of the man-made pond or mapped floodplain, and neither feature is proposed for disturbance. Soil disturbance could temporarily increase erosion, sediment transport, and stormwater runoff during rainfall.

The disturbance area may exceed one acre. Applicable construction stormwater compliance measures for the requested, preconstruction, and support activities will be determined and implemented before ground disturbance begins. The applicable stormwater requirements and controls for the larger common plan will be determined in Part Two. Applicable waste-management and spill-prevention requirements will govern the management of spoil, slurry, grout, washout, other residual materials, and equipment or material releases. These waste and spill requirements are addressed in Section 7, not additional mitigation measures proposed under Section 4.2.

4.1.2. Ecological Resources

Step 1 would remove vegetation primarily from agricultural and grass-covered areas.

As discussed in Section 3.2, LJAES found no suitable or materially suitable habitat for the assessed threatened and endangered species. The limited and localized effects of the activities are not expected to change LJAES's no-effect conclusion.

4.1.3. Cultural Resources

Steps 1 through 4, 6, and 7 could disturb surface or subsurface soils and affect previously undocumented cultural resources within a relatively small area. Step 5 would occur within the established disturbance area.

As discussed in Section 3.3, LJAES identified no documented cultural resources within or immediately adjacent to the application site. However, LJAES identified at least moderate potential for undocumented prehistoric resources and high potential for historic-age architectural or archaeological resources. No field survey has been completed. Therefore, the presence of cultural resources within the disturbance area and the effects on any such resources have not been determined.

4.1.4. Noise, Vibration, Air Quality, and Transportation

All steps would generate localized noise, greenhouse gas and other air emissions, and vehicle or equipment movement, including delivery traffic.

These effects would be concentrated near the disturbance area and would cease when the associated activities are completed. Final equipment, schedule, workforce, and truck-trip information will determine their magnitude.

4.2. Mitigation Determination

For purposes of this report, additional mitigation measures are measures considered under 10 CFR 51.45(c) to reduce or avoid environmental effects beyond the measures required by applicable permits and environmental requirements. Mandatory compliance measures are identified separately in Section 7 and are not additional mitigation proposed by Last Energy.

No additional mitigation is proposed for the requested LWA activities or the associated preconstruction and support activities. With implementation of the applicable compliance measures identified in Section 7, the anticipated environmental effects would be localized and minor. Additional mitigation was considered but not adopted because it would not meaningfully reduce the effects described in this report. Reasonable additional mitigation measures may be implemented if the activities result in environmental effects greater than those evaluated in this report.

The effects of the associated preconstruction and support activities are included to support the cumulative-effects analysis required by 10 CFR 51.45(c). Those activities are not requested for authorization under the LWA.

4.3. Other Required Environmental Considerations

In addition to evaluating environmental effects and mitigation, 10 CFR 51.45 requires consideration of unavoidable adverse effects, the relationship between short-term environmental uses and long-term productivity, and irreversible and irretrievable commitments of resources. Table 4-2 addresses these considerations for the requested and associated activities.

Table 4-2: Required Environmental Topics

Topic	Treatment
Adverse effects that cannot be avoided	Unavoidable effects include the cessation of agricultural production within the affected area, land and subsurface disturbance, localized noise and vibration, equipment emissions, traffic, and the consumption of construction materials. These effects would be localized and are not expected to materially affect local agricultural production, employment, or environmental resources.
Short-term uses and long-term productivity	The activities would use land and other resources for site preparation and foundation work. Agricultural production within the affected area would cease during project use. Because the affected area is limited, this change is not expected to materially affect the agricultural productivity of the surrounding area.
Irreversible and irretrievable commitments of resources	Materials incorporated into the liner, piles, and grout would be committed to the project. Fuel, water, and labor used to perform the activities would be irretrievably consumed. Land and subsurface changes within the foundation footprint would persist unless incorporated into later-authorized facility construction or addressed through redress if required.

These considerations do not change the conclusion that the activities would have localized environmental effects and would not materially affect environmental resources or long-term productivity outside the affected area.

5. Alternatives

Consistent with 10 CFR 51.45(b)(3), (c), and 10 CFR 51.49(f), Last Energy considered the no-action alternative and reasonable material alternatives that could reduce the environmental effects of the requested activities. The comparison includes construction-material use and associated lifecycle greenhouse gas emissions.

5.1. No-Action Alternative

Under the no-action alternative, the NRC would not authorize the requested activities under the LWA. Installation of the liner, driving of the piles, and placement of grout would be deferred unless authorized through a later NRC action.

This alternative would avoid the effects identified in Section 4 during the LWA period, including material consumption and associated greenhouse gas emissions. If the same work were performed later, those effects would be deferred rather than avoided. The alternative would not meet the purpose of performing the initial foundation work before authorization of subsequent facility construction.

5.2. Alternative to Steel Liner

Concrete liner

A concrete liner could be used instead of the proposed steel liner. The concrete liner would require cementitious material, water, material deliveries, concrete placement, and management of residual concrete and washout. Cement production, material transportation, and construction equipment use would contribute to lifecycle greenhouse gas emissions. The steel liner was selected because it reduces concrete use and the associated material and greenhouse gas effects.

5.3. Alternatives to the Steel H-Piles

Concrete plug

A concrete plug could be used instead of the proposed steel H-piles. The concrete plug would require additional cementitious material, water, material deliveries, concrete placement, and management of residual concrete and washout. The proposed H-piles require steel production and would produce temporary noise and vibration during driving, but they reduce concrete use and the associated material and greenhouse gas effects. The steel H-piles were therefore selected.

Drilled concrete shafts

Drilled concrete shafts could also be used instead of the proposed steel H-piles. Although drilling would reduce pile-driving noise and vibration, it would generate additional spoil and require greater quantities of concrete, water, material deliveries, and management of residual concrete and washout. Cement production, transportation, drilling, and concrete placement would also increase lifecycle greenhouse gas emissions. Because this alternative would result in greater material consumption, waste generation, traffic, and greenhouse gas effects, it was not selected.

5.4. Alternative to Bentonite Grout

Cementitious grout

Cementitious grout could be used instead of the proposed bentonite grout. Production of cementitious grout and its constituent cement would contribute to lifecycle greenhouse gas emissions. Bentonite production and transportation would also produce greenhouse gas emissions, but the proposed bentonite grout reduces cementitious-material use and the associated material and greenhouse gas effects. Bentonite grout was therefore selected.

5.5. Overall Comparison

Each construction alternative would be subject to the applicable environmental requirements identified in Sections 4 and 7. The selected alternatives are expected to reduce lifecycle greenhouse gas emissions by reducing the production, transportation, and placement of concrete and other cementitious materials. The magnitude of the reduction has not been quantified because final material quantities, transportation distances, fabrication methods, recycled content, and supplier-specific lifecycle data have not been established. These differences do not change the conclusion that the requested activities would have localized and minor environmental effects.

6. Cumulative Effects

The combined environmental effects of the preconstruction and LWA activities remain minimal and localized. This evaluation considers the effects of preconstruction and supports Steps 1 through 3 and Step 5 together with the effects of LWA Steps 4, 6, and 7.

The activities occur sequentially within the same localized disturbance area. Steps 1 through 3 prepare the area and foundation opening, and Step 5 installs the pile-driving frame. Steps 4, 6, and 7 install the liner, piles, and grout. Because the LWA activities use the area affected by the preceding activities, they do not materially expand the disturbance area or affect additional environmental resources.

Construction noise, equipment emissions, and material handling are temporary. The permanent foundation elements will remain for the life of the facility and will commit the localized foundation footprint to facility use during that period. This commitment does not materially diminish the productivity of the remainder of the application site or surrounding area. The combined effects do not change the conclusions in Section 4 and do not require controls beyond the applicable compliance requirements identified in Section 7.

7. Status of Compliance

This section identifies the environmental authorizations, standards, and other requirements applicable to the proposed action and describes the status of compliance and any remaining actions. Measures imposed by these authorizations and requirements are mandatory compliance measures. They are distinct from the additional mitigation measures evaluated in Section 4.2.

7.1. Federal Authorization

Last Energy requests an LWA from the NRC under 10 CFR 50.10(d) for liner installation, steel H-pile driving, and grout backfill. The authorization is requested through this application.

7.2. Federal Environmental Requirements

National Historic Preservation Act

NRC issuance of the LWA is a federal undertaking subject to Section 106 of the National Historic Preservation Act and 36 CFR Part 800. LJAES's cultural resources desktop review identified no previously documented cultural resources within or immediately adjacent to the application site. The application site has moderate potential for undocumented prehistoric archaeological resources and high potential for historic-age architectural or archaeological resources. LJAES recommends a formal cultural resources survey of the affected area. No field survey has been completed, and the consultation status remains to be documented.

Endangered Species Act

NRC issuance of the LWA is a federal action subject to Section 7 of the Endangered Species Act and 50 CFR Part 402. LJAES completed a threatened and endangered species assessment dated September 15, 2026, using the August 19, 2026, U.S. Fish and Wildlife Service species list. LJAES concluded that work on the application site would not affect the assessed species or designated critical habitat.

Migratory birds and eagles

The Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act apply to protected migratory birds, eagles, and nests potentially affected by vegetation clearing and other site activities. No bald eagles or nests were observed, and the application site lacks suitable bald eagle nesting or perching trees. LJAES did not conduct a comprehensive migratory-bird or active-nest survey. Any measures required for compliance will be established before vegetation clearing.

7.3. State Environmental Requirements

Construction Stormwater

The disturbance area may exceed one acre. The activities are also part of a larger common plan of development expected to disturb one acre or more. Applicability of the Texas Pollutant Discharge Elimination System

Construction General Permit TXR150000 is based on the total disturbance under the larger common plan rather than the disturbance associated with Part One alone. Applicable authorization, notification, and stormwater control requirements for the requested, preconstruction, and support activities will be addressed before ground disturbance begins. The applicable stormwater requirements and controls for the larger common plan will be determined in Part Two.

Waste and spill requirements

Applicable waste-management and spill-prevention requirements apply to spoil, slurry, grout, washout, other residual materials, and equipment or material releases. Applicable requirements for characterization, handling, disposal, and spill response will be established before work begins. Materials and releases will be managed in accordance with those requirements.

State-protected species

Texas protected-species requirements apply to state-protected species potentially affected by the requested and preconstruction activities. State-listed species were outside the scope of LJAES's assessment. Applicability and the compliance approach will be determined before work begins.

Human remains and grave objects

Applicable requirements for unmarked burials and human remains apply if human remains or grave objects are encountered during ground-disturbing activities. If human remains or grave objects are discovered, work will stop at the discovery location, and the appropriate authorities and a qualified archaeologist will be notified in accordance with applicable requirements.

7.4. Local Development Requirements

Commercial site construction

The requested and associated activities are subject to Caldwell County's commercial site construction requirements. Before land clearing or construction begins, Last Energy will obtain the County commercial site construction permit and comply with its conditions.

Driveway modification

The existing site driveway will be modified. Before the modification begins, Last Energy will obtain driveway approval from the responsible roadway authority and comply with its conditions.

Floodplain

The disturbance area is expected to avoid the mapped 100-year floodplain. No work within or alteration of the mapped floodplain is proposed; a floodplain development permit is not anticipated.

8. Conclusion

The activities requested under the Caldwell LWA are expected to cause minimal, localized environmental effects. Construction effects will be primarily short term, while the permanent foundation elements and localized foundation footprint will remain for the life of the facility. When combined with the associated preconstruction and support activities, cumulative effects remain minimal.

Unavoidable effects and irretrievable resource commitments are limited to the localized occupation of land and the use of construction materials, fuel, and consumable supplies. These commitments will not materially diminish the long-term productivity of the remainder of the application site or surrounding area. Additional controls are not necessary, although applicable compliance requirements will be met.

The selected alternatives reduce the use of concrete and cementitious materials. The technical benefits of establishing the permanent foundation needed to support the future safety-related structure outweigh the limited environmental costs. Last Energy concludes that the LWA activities will not result in significant environmental effects.

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9. References

[1] LJA Environmental Services, LLC, *Waters Delineation Report*, August 2026.

[2] LJA Environmental Services, LLC, *Threatened and Endangered Species Assessment*, Project No. [redacted], September 15, 2026.

[3] LJA Environmental Services, LLC, *Cultural Resources Desktop Review*, August 20, 2026.

[4] LJA Environmental Services, LLC, *Phase I Environmental Site Assessment Report*, Report No. [redacted], September 10, 2026.