



Jay Chesser
Station Manager
Hines Energy Complex

December 12, 2025

Mr. Nate Senn
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400
(Submitted via email to Nate.Senn@FloridaDEP.gov)

Subject: Duke Energy Florida, LLC
Hines Energy Complex
Conditions of Certification PA 92-33
Petition for Modification-Brine Handling System
Response to Determination of Completeness Letter dated May 6, 2025

Dear Mr. Senn:

Duke Energy Florida, LLC. (DEF) received the Department's Determination of Completeness letter via email on May 7, 2025, in response to the petition for Modification of the above-referenced Conditions of Certification for approval to construct a brine handling system that includes lined ponds, evaporators, tanks and pumps. The questions/comments included in the letter are provided in bold type, followed by the response from DEF.

DEP Southwest District:

Stormwater Management

- 1. The stormwater narrative, calculations and construction plans submitted with the application do not appear to be signed, sealed, and dated by a registered professional. All construction plans, reports, specifications, and supporting calculations submitted for stormwater management systems must be signed, sealed, and dated by a professional registered or licensed by and in the State of Florida and practicing under Chapter 471, 472, 481, or 492, F.S. Please submit a revised stormwater calculations and set of construction plans that are signed, sealed, and dated by a registered professional. [Pursuant to the ERP Applicant's Handbook Volume I, Section 2.0(a)(84) and the ERP Applicant's Handbook Volume II, Section 2.2]**

DEF Response: Please see the attached copies of the stormwater calculations and a set of construction plans that have been signed and sealed by a professional engineer registered in Florida.

Wetland Impacts

- 2. The Department must conduct a site visit to verify the delineation of wetlands and other surface waters onsite in accordance with Chapter 62-340, F.A.C. Please have the wetland boundary flagged for verification by staff in advance of the scheduled site inspection. Please contact your processor to schedule a site visit.**

DEF Response: Wetlands were flagged for the site visits with FDEP on June 11, 2025, and August 22, 2025.

- 3. Per the ERP Applicant's Handbook Volume II, Section 10.2.2.1, please demonstrate that the wetland proposed to be impacted is not connected by standing or flowing surface water at seasonal high-water level to one or more wetlands, and the combined wetland acreage so connected is greater than one half acre. If the wetland proposed for impact does not meet the criteria in the ERP Applicant's Handbook Volume II, Section 10.2.2.1, a sufficient compensatory mitigation plan may be required. Please provide a complete Uniform Mitigation Assessment Method (UMAM) analysis, UMAM forms Part I and Part II, for each wetland type (example: mangrove swamp, 612) and for each impact type (i.e. direct, secondary, shading etc.) with applicable acreages so that the proposed impacts can be verified. A UMAM assessment will be required for any proposed impacts to wetlands or other surface waters which would require mitigation for impacts. [Pursuant to the ERP Applicant's Handbook Volume I, Sections 4.2.3, 10.1.1, 10.2.1, 10.3]**

DEF Response: Please see the attached UMAM sheets that were prepared for the purchase of herbaceous wetland credits at Tippen Bay Wetland Mitigation Bank. The UMAM sheets were submitted to Stephaney Pover at the FDEP office in Tampa on September 16, 2025, and approved by Stephaney on September 19, 2025.

Based on the UMAM analysis, we calculated that 0.9 herbaceous wetland credits were required to offset the unavoidable wetland impacts. Please see the attached Credit Reservation Letter that demonstrates that 0.9 herbaceous wetland credits have been reserved at the Tippen Bay Wetland Mitigation Bank for the Hines Energy Complex Brine Handling System.

Material Excavation

- 4. The submitted application described that 174,000 cubic yards of sand tailing is proposed to be mined from the N11 sand borrow pit. As defined in the ERP applicant's Handbook Volume I, Section 2.0(a)(73) "Mine" means an area of land that is related to the removal from its location of solid substances of commercial value found in natural deposits on or in the earth, so as to make the substances suitable for commercial, industrial, or construction use, but does not include excavation solely in aid of on-site farming or on-site construction, nor the process**

of prospecting. As used in Chapter 62-330, F.A.C., this does not include mining operations conducted in conjunction with land development that will result in residential, industrial, commercial, or land fill uses at the end of construction. Borrow pits that use extracted material in on-site locations are not mines. Please specify whether the N11 sand borrow pit qualifies as a mine or a borrow pit according to the definition provided in the ERP Applicant's Handbook, Volume I. [Pursuant to the ERP applicant's Handbook Volume I Sections 2.0(a)(73), 4.2.3, and Rule 62-330.060(1), F.A.C., Rule 62.330.301, F.A.C]

DEF Response: The proposed N-11C borrow area will meet the criteria as a "Borrow Pit." The excavated sand will be used as fill for construction of ponds on the property of the Hines Energy Center. None of the sand excavated from N-11C will be used for other purposes.

- 5. The submitted application did not indicate whether the N11 sand borrow pit is to be a wet pit or excavated in-the-dry. Please provide the elevation of the water table at seasonal high-water level, as well as the final bottom elevation of the proposed N11 sand borrow pit. [Pursuant to Rule 62-330.060(1), F.A.C., Rule 62.330.301, F.A.C]**

DEF Response: The N-11C area has water tables from 8.3 feet below grade to greater than 10 feet below grade when the borings were performed between April 8, 2025, and April 9, 2025. Boring elevations were estimated from the Survey Topography shown on Figure 1 attached to this letter. Logs of the borings are shown in Figure 2. The soil is very clean fine sand (sand tailings from phosphate ore processing) with drainage to a small flag pond area at the NE area with an estimated elevation of +173 feet. The average elevation of the proposed borrow area is +181 feet, varying from +177.5 feet (AB-8) to +188.5 feet (AB-1 and AB-5).

The borrow from N-11C will be dry and limited to no closer than 1 foot above the Seasonal High-water level. The seasonal high-water level is estimated at El. +174 feet. That is, the maximum bottom of excavation is estimated at +175 feet. However, due to the limited volume of sand required for the proposed construction, the actual bottom of excavation is expected to be above that level.

- 6. Please indicate whether dewatering is planned within the N11 sand borrow pit. If dewatering is proposed, to provide reasonable assurance in accordance with Rule 62-330.301(1), F.A.C., please include a supporting narrative or demonstrate that the dewatering activities will not significantly lower onsite water table elevations in a way that could adversely impact adjacent wetland systems. Additionally, provide reasonable assurance that turbidity barriers or similar devices will be installed and maintained throughout the dewatering process. [Pursuant to the ERP Applicant's Handbook Volume I, Sections 10.2.4.1, 10.2.7, and Rule 62-330.301, F.A.C.]**

DEF Response: No dewatering is planned for the N-11C borrow area. The plan is to minimize the depth of excavation and stay at least 1 foot above the Seasonal High-Water Table as discussed in Question 5.

7. The submitted application did not indicate if the N11 sand borrow pit will operate under a no-discharge condition. Please provide a narrative and supporting calculations to demonstrate that the N11 sand borrow pit will operate under a no-discharge condition. [Pursuant to Rule 62-330.060(1), F.A.C., Rule 62.330.301, F.A.C.] If the N11 sand borrow pit does not operate under a no-discharge condition, please provide reasonable assurance the borrow pit will meet water quantity standards listed under Part III of the SWFWMD's ERP Applicant's Handbook Volume II. Additionally, please provide Section E of Form 62-330.060(1), F.A.C. and the requested information therein. [Pursuant to Rule 62-330.060(1), F.A.C., Rule 62.330.301, F.A.C and Part III of the SWFWMD's ERP Applicant's Handbook Volume II]

DEF Response: The N-11C borrow area will operate under a no-discharge condition. The excavation is planned to be no deeper than 1 foot above the Seasonal High Water Table.

8. The submitted application does not specify the intended use of the N11 sand borrow pit following the completion of excavation. Please provide a narrative detailing the post-closure plan for the N11 sand borrow pit. [Pursuant to Rule 62-330.060(1), F.A.C.] If the N11 sand borrow pit is intended to become a stormwater management system for future development, the system is required to meet the water quality standards listed under Part IV of the SWFWMD's ERP Applicant's Handbook Volume II. Additionally, please provide Section E of Form 62-330.060(1), F.A.C. and the requested information therein. [Pursuant to Chapter 62-330.060(1), F.A.C., Rule 62.330.301, F.A.C, and Part IV of the SWFWMD's ERP Applicant's Handbook Volume II]

DEF Response: N-11C is a reclaimed phosphate mine pit with the top elevation in the proposed borrow area at +185.5 to +177.5 feet. The elevation of SR 640 immediately north of N-11C is approximately +150 feet. Following completion of borrow pit excavations for the project, the area will be graded with slopes flatter than 6H:1V and sloped toward the Flag Pond area at the NE corner of the proposed borrow area. Volunteer vegetation is expected to reclaim the excavation area. There is no surface runoff occurring now; any surface runoff drains toward interior ponds at the SW corner of N-11C with no discharge from the site. The area will not be a stormwater management site.

9. The N11 sand borrow pit appears to be located adjacent to the on-site conservation area. For reasonable assurance that no work will take place within the conservation boundary, please provide a depiction of the boundary of the conservation area near the proposed N11 sand borrow pit. [Pursuant to Rule 62.330.301, F.A.C]

DEF Response: Please see attached copy of the map showing the conservation easement near the proposed N-11C excavation site.

Dam Safety

- 10. Attachment 1, Lined Evaporative Spray Ponds Description and Conceptual Design:** It is stated in attachment I that the evaporative spray ponds have a preliminary height of approximately 14.5 feet. Draft Chapter 62-330, Environmental Resource Permitting (ERP), Florida Administrative Code (F.A.C.), Applicant's Handbook (A.H.), Volume II (Vol. II), Section 5.9, Dam Safety, provides that an impoundment that is greater than five feet in height and has the capacity to store 50 acre feet or more OR is 10 feet or more in height qualifies as a dam and must be constructed in accordance with this section. As such, please submit the information necessary to satisfy: 1) Section E of the ERP application, 2) A.H. Volume I, Section 8.4.5 and Appendix L, Additional Criteria for Dam Systems, and 3) A.H. Vol. II, Section 5.9.

DEF Response: DEF agrees that the proposed Spray Ponds will be contained within dams. ERP AH Volume II Section 5.9 of Draft Chapter 62-330 indicates that dams "... shall be designed, constructed, operated and maintained consistent with accepted engineering and dam safety practices as applied to local conditions. ..." DEF, along with Ardaman, proposes to design and construct the Spray Pond dams consistent with Chapter 62-672, F.A.C., that presents standards for earthen dams utilized by the phosphate industry in Florida. DEF presently inspects and operates dams for the cooling water system and water storage dam utilizing Chapter 62-672, F.A.C., standards.

The proposed area of each pond is about 14 acres, and each will store up to 85 acre-feet of brine. Only one pond will be used at a time. The second pond will be available to increase the freeboard in the first pond in the event of a large storm. There will be no spillways, the minimum 5-ft. of freeboard will be maintained by transferring water between ponds by pumps. The final design and the information required in FDEP Form 62-330.301(25) will be submitted by DEF

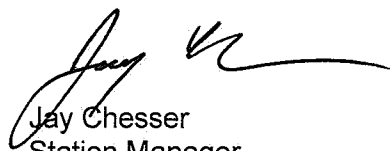
With respect to Appendix L:

Ardaman believes that the Downstream Hazard Potential will classify as Low Hazard Potential (LHP) in that failure is not expected to result in the loss of human life and may result in low economic, environmental, and/or environmental losses, that will be largely limited to the owner's property. An Emergency Action Plan and Condition Assessment Report are not required for dams classified as LHP. An image of the project location relative to downstream landforms is attached as Figure 1. An aerial image showing the project location adjacent to the plant island ditch system and containment area is shown as Figure 2. The plant island ditch system surrounds the proposed Spray Ponds and discharges all runoff from the Hines Energy Center Complex plant area to the

containment area. Any discharge from a dam breach or mis-operation should be captured in the plant island ditch system and discharged to the containment area.

Should you have any questions regarding this submittal, please contact Ms. Ilia Balcom at (813) 362-5123 or ilia.balcom@duke-energy.com. Please copy Ms. Balcom on all correspondence related to this submittal.

Sincerely,

A handwritten signature in black ink, appearing to read "Jay Chesser", with a long horizontal flourish extending to the right.

Jay Chesser
Station Manager
Hines Energy Complex

Enclosures

ATTACHMENT 2

Flow From Additional Permanent Impervious Area Calculations

PROJECT: DUKE ENERGY HINES ENERGY COMPLEX SOUTH LAYDOWN AREA
 TITLE: FLOW FROM ADDITIONAL PERMENANT IMPERVIOUS AREA
 DATE: 2025-02-20

ADDITIONAL IMPERVIOUS AREA (AC)
 1.57

PEAK DISCHARGE USING RATIONAL METHOD

$Q = CiA$

Q	=	C	i (inch/hour)	A (ac)
	=	0.9	10	1.57
	=	14.13	cfs	

NOTES:

1. C, RUNOFF COEFFICIENT USED IS 0.9 FOR IMPERVIOUS AREA.
2. I, RAINFALL INTENSITY USED IS FROM FDOT DRAINAGE MANUAL APPENDIX B IDF CURVE FOR ZONE 8 (POLK COUNTY IS IN ZONE 8), 100 YEAR-10 MINUTES DURATION

RUNOFF VOLUME FROM IMPERVIOUS AREA

	IMPERVIOUS				
	AREA (AC)	X	RAINFALL (IN)	X	FT/IN
=	1.57	X	9.5	x	0.083
=	1.24	AC-FT			

NOTES:

1. RAINFALL AMOUNT OBTAINED FROM SWFWMD, APPLICANT HANDBOOK VOL II, APPENDIX A, FIG D-7 24-HOUR 100 YEAR RETURN PERIOD RAINFALL MAP.

DEF Response to Question No. 3
UMAM Sheets

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name Duke Energy Hines Energy Complex - Brine Pond		Application Number		Assessment Area Name or Number WL-1	
FLUCCs code 6410		Further classification (optional) PEM		Impact or Mitigation Site? Impact	
				Assessment Area Size 2.71	
Basin/Watershed Name/Number		Affected Waterbody (Class) Class III		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) N/A	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The assessment area is an isolated wetland located between a paved road to the north and west, a large spoil mound to the east, and a gravel road to the south. No culverts or flow channels present. The former phosphate mined area is completely surrounded by a perimeter berm as a result of the historical mining operations					
Assessment area description Assessment area is an isolated wetland in a heavily disturbed area of the Duke Energy Hines Energy Complex. The project area is part of a larger area that was historically mined for phosphate. The area has been reclaimed as part of the mandatory reclamation process. The area where the wetlands are located was filled with clay tailings in the 1990's. The subsidence of portions of the reclamation has created pockets in the landscape for trapping water. In addition, the high clay content used for reclamation has resulted in poor drainage.					
Significant nearby features Hines Energy Complex, Highway 555; unreclaimed phosphate mining areas, cooling ponds; fences surrounding sections of the facility; ditches to move water to the cooling ponds			Uniqueness (considering the relative rarity in relation to the regional landscape.) None		
Functions Water treatment, water storage, minimal wildlife habitat			Mitigation for previous permit/other historic use N/A		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Osprey, whitetail deer, possum, raccoon, common songbirds			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Wood stork		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Osprey, vireo (unknown species), whitetail deer					
Additional relevant factors: None					
Assessment conducted by: K. Huntington, Z. Hovey			Assessment date(s): 4-Aug-25		

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Duke Energy Hines Energy Complex - Brine Pond	Application Number 0	Assessment Area Name or Number WL-1
Impact or Mitigation Impact	Assessment conducted by: K. Huntington, Z. Hovey	Assessment date: 8/5/2025

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current 3 with 0	The entire surrounding area is part of a historical phosphate mining operation which was in evidence until the mid 1990's. The perimeter of the mining operation was surrounded by large perimeter berm which is still present This berm isolates drainge within the berm. Wildlife support is reduced, habitats outside of the assesment area fail to provide support for some native wildlife as a chain link fence surrounds the property and the majority of surrounding areas are heavily disturbed former phosphate mining operations. Surrounding plant communities are dominated by invasive exotic species including Brazilian pepper (<i>Schinus terebinthifolia</i>), cogon grass (<i>Imperata cylindrica</i>), balsam apple (<i>Momordica charantia</i>), Peruvian primrose (<i>Ludiwigia peruviana</i>), and torpedo grass (<i>Panicum repens</i>). The assessment area is isolated and does not provide benefits to other wetland systems, offsite flow is impeded by surrounding roads and spoil mound.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current 3 with 0	The former phosphate mined area is completely surrouded by a perimeter berm as a result of the historical mining operations. All water runoff is contained on site. The subsidence of portions of the reclamation has created pockets in the landscape for trapping water. In addition, the high clay content used for reclamation has reulted in poor drainage. Water level indicators are not distinct and are not consistent with the type of system being evaluated. Evidence of use by wetland-dependent animal species is greatly reduced. Vegetation community zonation in most strata is inappropriate for the type of system being evaluated (ie) cogon grass and Brazilian pepper encroachment throughout) and dominant plant community consists of species tolerant with water quality degradation.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current 3 with 0	The entire area where the wetland occurs is within a previously mined phosphate operation that has been reclimed with clay tailings. The majority of the plant cover is by undesirable invasive vegetation in all stratums and there is limited evidence of natural recruitment by desirable species. Limited beneficial topographic features such as hummocks and refugia ponds. Species observed in the shrub and canopy include Brazilian pepper and Carolina willow (<i>Salix caroliniana</i>); species observed in the groundcover include swamp flatsedge (<i>Cyperus ligularis</i>), sedge (<i>Carex</i> spp.) beaksedge (<i>Rhynchospora</i> spp.) winged loosestrife (<i>Lythrum alatum</i>), cattail (<i>Typha</i> sp.), torpedo grass (<i>Panicum repens</i>), Peruvian primrose, creeping primrose (<i>Ludwigia repens</i>), and Mexican primrose (<i>Ludwigia octovalvis</i>).

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.30	0

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.3 x 2.71=0.813

Delta = [with-current]
0.30

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

**TIPPEN BAY WETLAND MITIGATION BANK PURCHASE AND DEPOSIT
AGREEMENT**

THIS CREDIT PURCHASE AND DEPOSIT AGREEMENT (hereinafter "Agreement") is entered as of the Effective Date (as defined below), by J.R. Paul Properties, Inc. ("Seller"), whose address is P.O. Box 2357 LaBelle, Florida 33975 and Duke Energy Hines Energy Complex ("Buyer"), whose address is 7700 Country Road 555 Bartow, Florida 33830 (hereinafter collectively the "Parties").

WITNESSETH:

WHEREAS, Seller represents the Tippen Bay Wetland Mitigation Bank located in Desoto County, Florida (the "Mitigation Bank"), SWFWMD Permit Number: 43041757.003 and USACOE Permit Number: SAJ-2013-02583;

WHEREAS, the Wetland Bank provides Wetland Mitigation Credits to offset and serve as compensation for wetland impacts;

WHEREAS, Buyer needs to purchase Credits to offset wetland impacts associated with the proposed development of a project known as Hines Energy Complex Brine Pond Project (hereinafter "Project"), FDEP Application Number: Conditions of Certification Number: PA 92-33J;

WHEREAS, as part of the environmental permitting process for the Project involving the FDEP will condition the issuance of Buyer's permits on the purchase of Credits as compensatory mitigation;

WHEREAS, Seller agrees to sell and Buyer agrees to purchase Credits available from the Wetland Bank on the terms and conditions below to be used to offset wetland impacts associated with the Project;

WHEREAS, Buyer has determined that the number of Credits to be purchased is 0.9 (Nine Tenths) Herbaceous Wetland Mitigation Credits (the "Subject Credits"); and

NOW, THEREFORE, in consideration of the premises and the mutual covenants hereinafter contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, each intending to be legally bound, do hereby warrant and agree as follows:

1. **Incorporation by Reference.** The matters stated in the introductory paragraphs above are incorporated into and made a part of this Agreement.

2. **Terms of Purchase.** Buyer agrees to purchase the Credits for

\$140,000.00/UMAM State Credit. Therefore, the purchase price is \$126,000.00 (One Hundred Twenty-Six Thousand U.S. Dollars) (the "**Purchase Price**"). The Purchase Price is payable as follows:

a. An amount equal to ten percent (10%) of the Purchase Price set forth above shall be paid to Seller as a deposit (the "**Deposit**") contemporaneously with Buyer's execution of this Agreement. The Deposit of \$12,600.00 (Twelve Thousand Six Hundred U.S. Dollars) shall be credited against the Purchase Price. All payments shall be paid to the account of **J.R. Paul Properties, Inc.** ("Seller"), whose address is P.O. Box 2357 LaBelle, Florida 33975.

b. The balance of the Purchase Price \$113,400.00 (One Hundred Thirteen Thousand Four Hundred U.S. Dollars) becomes due and shall be paid by Buyer 90 days after the signing of this agreement.

3. **Adjustment to Number of Credits.** Before the balance of the Purchase Price becomes due, as provided in Paragraph 2.b above, Seller agrees to reduce at no penalty to Buyer the number of credits that are the subject of this Agreement if the FDEP requirement for the Project is decreased. Seller also agrees to increase the number of credits that are the subject of this Agreement, if requested by Buyer and additional credits are available. The price per additional credit will be One Hundred Forty Thousand U.S. Dollars (\$140,000.00). If the number of credits is either increased or decreased the Purchase Price shall be adjusted, and the initial Deposit will be applied to the adjusted Purchase Price. Any request for either a reduction or an addition of credits must be in a writing signed by Buyer and delivered to Seller. Seller will not be obligated to sell additional credits to Buyer unless Seller agrees in writing to Buyer's request for additional credits and in the writing specifies the number of additional credits that will be sold to Buyer.

4. **Covenants of Seller.** Seller covenants and agrees that it shall comply with all conditions and continuing requirements set forth in Seller's permits from the SWFWMD for the Mitigation Bank. Responsibility for compliance with the Seller's permits for the Wetland Bank shall solely be the responsibility of Seller. The provisions of this Paragraph 4 shall survive the transfer of the Credits to Buyer.

5. **Deposit.** Until payment is earned, as provided in Paragraph 7, the Deposit will be held in an account. Said Deposit shall be non-refundable to Buyer except in the case of breach by Seller as set forth in Paragraph 8 below.

6. **Conditions of Transfer of Credit.** Before the transfer of Credits to Buyer, Buyer shall provide to Seller a true, correct, and complete copy of the FDEP ERP Permit. Upon receipt, Seller shall provide to Buyer within ten (10) days thereafter documentation as required by the FDEP to effectuate the transfer of Credits pursuant to the conditions of the Buyer's permit for the Project. Buyer is hereby notified that the transfer of Credits generally takes approximately thirty (30) days to complete.

7. **Debit of Credits and Transfer.** Upon notification of the debit of the Credits by

the SWFWMD, the same shall be transferred to Buyer together with documents evidencing such transfer ("**Transfer Documents**"). The Parties hereby agree that the transfer of the Credits will be complete upon Seller's transmission of the Transfer Documents to Buyer. Upon completion of the transfer, the Purchase Price will be deemed and considered as having been fully earned.

8. **Breach of Seller.** If, for any reason, the Credits are not transferred to Buyer because of a breach of the Agreement by Seller, then Seller shall refund the Deposit to Buyer if Buyer provides Seller written notice requesting the refund and specifying the breach. Notwithstanding the foregoing, Seller shall have twenty (20) days after receipt of such notice to remedy said breach. If the breach is not remedied within the twenty-day period, Seller shall refund the Deposit to Buyer, and each party shall be released from any further obligation or liability to the other.

9. **Successors and Assigns.** This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties hereto.

10. **Applicable Law.** This Agreement shall be construed and enforced in accordance with the laws of the State of Florida.

11. **Notices.** All notices required by this Agreement shall be in writing and shall be sent by certified or registered mail or hand delivered to the addresses set out below. Any notices or other communications or deliveries which may be required or desired to be given under the terms of this Agreement shall be in writing and shall be deemed to have been duly given if personally delivered, or if sent by overnight courier (e.g., Federal Express), or if mailed by United States certified mail, return receipt requested, postage prepaid, addressed to the respective party at the addresses set forth below:

Notice to Seller:

J.R. Paul Properties, Inc.
Attn: Bryan Paul
P.O. Box 2357
LaBelle, Florida 33975

Notice to Buyer:

Duke Energy Hines Energy Complex
Attn: Mark Mattina
7700 Country Road 555
Bartow, Florida 33830

Any notice so given, delivered or made by mail shall be deemed to have been duly given, delivered or made three (3) days after the date the same is deposited in the United States mail in

the manner specified above. Any notice delivered by overnight courier shall be deemed to have been duly given, delivered or made on the first day following the date the same is delivered to the overnight courier as established by the receipted bill of lading. Any notice which is given, delivered or made by any manner other than U.S. certified mail or by overnight courier shall be deemed to have been duly given, delivered or made upon actual receipt of the same by the party to whom the same is to be given, delivered or made. Either party may change the address to which notices are to be sent to such party by written notice to the other party specifying said change of address.

12. **Entire Agreement.** This Agreement contains the entire understanding between the Parties, and the Parties agree that no representation was made by or on behalf of the other which is not contained in this Agreement, and that in entering into this Agreement neither relied on any representation not herein contained. This Agreement shall not be binding on the Seller and Buyer until executed by an authorized officer of the Seller and Buyer, if applicable, and an executed copy of the Agreement has been delivered to the Buyer and Seller. Any and all prior agreements between Buyer and Seller concerning the purchase and sale of credits for the Project are merged into this Agreement and are of no force and effect.

13. **Amendments and Waivers.** This Agreement may not be amended, modified, altered, or changed in any respect whatsoever, except by a further agreement in writing duly executed by each and all of the parties hereto. No failure by Buyer or Seller to insist upon the strict performance of any covenant, duty, agreement or condition of this Agreement or to exercise any right or remedy upon a breach thereof shall constitute a waiver of any such breach or of such any other covenant, agreement, term or condition. Any party hereto, by notice, may but shall be under no obligation to, waive any of its rights or any conditions to its obligations hereunder, or any duty, obligation or covenants of any other party hereto. No waiver shall affect or alter this Agreement, but each and every covenant, agreement, term and condition of this Agreement shall continue in full force and effect with respect to any other then existing or subsequent breach thereof.

14. **No Joint Venture or Partnership or Agency Relationship.** Seller does not have any ownership interest in Buyer's business relationships or operations and Buyer does not have any interest in Seller's business relationships or operations. The relationship between Seller and Buyer is not in any manner whatsoever a joint venture or partnership and neither party shall be the agent of the other for any purpose, unless specifically granted in writing after execution hereof. Neither Buyer nor Seller shall hold itself out as an agent, partner or joint venturer with the other, and each party shall defend and indemnify the other against any claim of liability arising out of an asserted agency, partnership or joint venture by the other contrary to the express provisions of this paragraph.

15. **Captions: Genders.** Captions used in this Agreement are for convenience of reference only and shall not affect the construction of any provision of this Agreement. Whenever used, the singular shall include the plural, the plural shall include the singular, and gender shall include all genders.

16. **Partial Invalidity.** If any term of this Agreement shall be held to be invalid,

illegal, or unenforceable, in whole or in part, neither the validity of the remaining part of such term nor the validity of any other term of this Agreement shall in any way be affected thereby.

17. **Calculation of Time.** Time periods of five (5) days or less shall be computed without including Saturdays, Sundays, or national legal holidays, and any time period existing on a Saturday, Sunday or national legal holiday shall be extended until 5:00 p.m. on the next business day.

18. **Effective Date.** This Agreement is effective (the "Effective Date") on the date on which the last of the parties signs this Agreement.

19. **Typewritten or Handwritten Provisions.** Handwritten provisions and/or typewritten provisions inserted in this Agreement, which are initialed by both parties, shall control over the printed provisions in conflict therewith.

20. **Counterparts.** This Agreement may be executed in any number of counterparts, any one and all of which shall constitute the agreement of the parties and shall be deemed one original instrument.

21. **Time is of the Essence.** Time is of the essence under the terms of this Agreement.

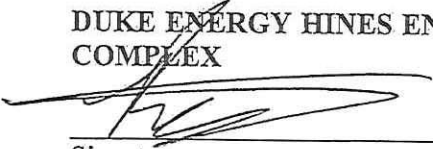
22. **Agreement Not Recordable.** This Agreement shall not be recorded in the public records of any county and any attempt to do so shall be null and void and of no force and effect whatsoever and any attempt to do so shall place said party in default hereof.

23. **ATTORNEYS' FEES.** In connection with any litigation, including appellate and/or bankruptcy proceedings, arising out of, under or relating to this Agreement, the prevailing party shall be entitled to recover such party's out-of-pocket costs and reasonable attorneys' fees.

IN WITNESS WHEREOF, the Parties hereto have duly executed this Agreement, as of the Effective Date.

BUYER:

DUKE ENERGY HINES ENERGY
COMPLEX

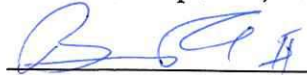

Signature

Reginald Anderson
Name and Title

Date: 11/11/25

SELLER:

J.R. Paul Properties, Inc.



Bryan W. Paul, II
Vice President

Date: 11/13/2025

D-188

AB-4



**DUKE
ENERGY**

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TITLE

AREA N-11C

AUGER BORING LOCATIONS
ON TOPOGRAPHIC SURVEY

R/O SPRAY EVAPORATION PONDS
SOUTH ALTERNATIVE LOCATION

DWG NO: 24-55-9718B

SHEET: 1

REV: DR

NOT FOR CONSTRUCTION
DRAFT 23rd April 2025

ROUTE: 24-55-0718B BORROW AREA - ABL 007

DEF Response to Question No. 5-Excavation Plan

From: [Hadley, Victoria](#)
To: [Balcom, Ilia G.](#)
Cc: [Mattina, Mark](#); [Turk, George](#); [Strickland, Jessica](#)
Subject: FW: [EXTERNAL] FW: Cut Volumes for N-11C Borrow Area
Date: Tuesday, May 13, 2025 12:32:51 PM
Attachments: [N-11C Borrow Area.pdf](#)

Hi Ilia,

Ross sent over the N-11C Borrow Area plan to help answer the DEP questions.

Attached is map showing the area, and a breakdown of the plan is included in the forwarded message below.

Please let me know if you need any more information.

Thank you,

Victoria Hadley

Assistant Project Manager

Hines Cooling Pond Clarification Project

Insight Global – Duke Energy

Cell: (863) 701-4702

From: McGillivray, Ross <RMcGillivray@ardaman.com>
Sent: Friday, May 9, 2025 4:14 PM
To: Hadley, Victoria <Victoria.Hadley@duke-energy.com>; Mattina, Mark <Mark.Mattina@duke-energy.com>; Turk, George <George.Turk@duke-energy.com>
Cc: Huntington, Ken <ken.huntington@hdrinc.com>
Subject: [EXTERNAL] FW: Cut Volumes for N-11C Borrow Area

***** CAUTION! EXTERNAL SENDER *** STOP. ASSESS. VERIFY!!** Were you expecting this email? Are grammar and spelling correct? Does the content make sense? Can you verify the sender? If suspicious report it, then do not click links, open attachments or enter your ID or password.

The attached shows the Borrow Area Plan.

The email from Brian explains the excavation areas.

I thought that I had transmitted this previously, but can't find that I did.

Ross

Ross T. McGillivray, P.E. (FL) | Senior Consultant

Ardaman & Associates, Inc.

Business (813) 620-33889 | Mobile (813) 478-6466 | rmcgillivray@ardaman.com

3925 Coconut Palm Dr. | Tampa, FL 33619

From: Runkles, Brian <BRunkles@ardaman.com>
Sent: Tuesday, May 6, 2025 5:25 PM
To: McGillivray, Ross <RMcGillivray@ardaman.com>
Cc: Leto, Tom <TLeto@ardaman.com>
Subject: Cut Volumes for N-11C Borrow Area

Ross,

In the northeast corner, there is a flag pond accompanied by a shallow drainage swale that runs through the N-11C borrow area to a larger water body in the south. The bottom of the swale is approximately at Elevation 175 feet, while the bank height is around Elevation 177 feet. To preserve the integrity of the drainage swale, we identified two distinct areas (one to the east and one to the west of the swale) for our cut volume calculations (see attached aerial). The highest points in the east and west areas are slightly above Elevation 182 feet and Elevation 186 feet, respectively. We used horizontal slices at 2-foot intervals to calculate the borrow volumes as follows:

East Barrow Area (Approximately 8.25 acres)

- Cut Volume from Surface (Approximately Elevation 182) to Elevation 180 = 1,464 cubic yards
- Cut Volume from Elevation 180 to Elevation 178 = 9,442 cubic yards
- Cut Volume from Elevation 178 to Elevation 176 = 20,208 cubic yards

West Barrow Area (Approximately 12.68 acres)

- Cut Volume from Surface (Approximately Elevation 186) to Elevation 184 = 5,649 cubic yards
- Cut Volume from Elevation 184 to Elevation 182 = 13,746 cubic yards
- Cut Volume from Elevation 182 to Elevation 180 = 26,329 cubic yards

Let me know if you have any questions.

Brian D. Runkles, P.E.
Ardaman & Associates, Inc.



Image Date: 01/24/2025

Scale: 1" = 1/2 mile



Project Area

RTM1_Ardaman\24-55-9718B2\05-Docs\1.Dwg\FIG-02-Spray Pond Locations.dwg

DRAWN BY: RTM	CHECKED BY:	DATE: 12/09/2025
FILE NO. 24-55-9718B	APPROVED BY:	FL Registration: 17920

R/O Brine Evaporation Pond Project
Duke Energy FL - Hines Energy Complex, Polk County, FL

Vicinity Map - Google Earth



FIGURE NO.
1



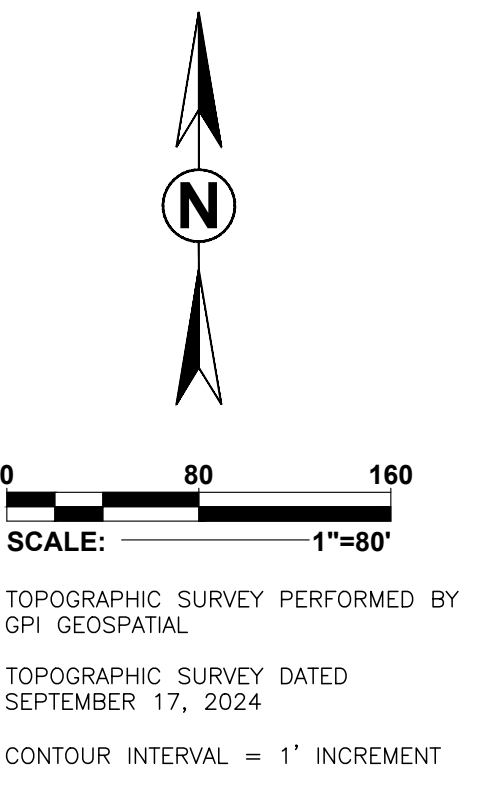
Scale: 1" = 600 ft.

RTM: Ardaman\24-55-9718\FIG-02-Spray Pond Locations.dcd

DRAWN BY: RTM	CHECKED BY:	DATE: 12/09/2025
FILE NO. 24-55-97188	APPROVED BY:	FL Registration: 17920

R/O Brine Evaporation Pond Project
Duke Energy FL - Hines Energy Center, Polk County, FL

Plant Area Drainage Pond



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[illegible]

DAM SYSTEM INFORMATION

Applicability and Instructions

Applicability

This form must be completed to provide information and parameters describing the characteristics of the dam system. This information shall be submitted in the permit application to construct a new dam or alter an existing dam, in accordance with Rule 62-330.301(2), Florida Administrative Code, and Section 8.4.5, *Dam Systems*, and Appendix L, *Dam Systems*, in the Applicant's Handbook Volume I. The applicant or applicant's authorized agent, as provided in Form 62-330,060(1), *Application for Individual and Conceptual Approval Environmental Resource Permit, State 404 Program Permit, and Authorization to Use State-Owned Submerged Lands*, must sign this form.

Instructions

Each parameter is hyperlinked to its definition, listed alphabetically at the bottom of this form. See the definitions for a range of acceptable answers and units of measurement. Do not leave any parameters blank. If a response is unknown, enter "UNK," or if a parameter is not applicable, enter "N/A".

Submit the completed form to the permitting agency in the application submittal and preferably email it to DamSafety@FloridaDEP.gov or mail it to the State Dam Safety Officer, Florida Department of Environmental Protection, 2600 Blair Stone Road, Mail Station 3595, Tallahassee, Florida 32399.

Dam Parameters

Part 1: General Information

1. Dam Name: Hines Energy Brine Ponds 2. Other Dam Names: Hines Energy Evaporation Ponds
3. Former Dam Name(s): N/A
4. State Agency / Permit Number: PA 92-33 MOD L 5. NID ID: N/A
6. Number Separate Structures: 2 7. Other Structure ID:
8. Longitude: 81 52'24.59" W 9. Latitude: 27 47'10.81" N
10. Section: 14 Township: 31S Range: 24E
11. County: Polk 12. River or Stream: N/A
13. Nearest Downstream City/Town: Ft. Meade, FL
14. Distance to Nearest Downstream City/Town (miles): 4.6
15. Dam Owner Name (add additional sections or sheets to record all dam owners):

Last Name: Chesser First Name: Jay

Address: 7700 CR555

City: Bartow State: FL Zip: 33830

Landline Number: Cell Phone Number: 352 445-7456

Email Address: jay.chesser@duke-energy.com
16. Dam Owner Type: Electric Utility

17. Landowner Name (add additional sections or sheets to record all landowner names):

Last Name: Chesser First Name: Jay

Address: 7700 CR555

City: Bartow State: FL

Zip: 33830

Phone Landline Number:

Cell Phone Number: 352 445-7456

Email: jay.chesser@duke-energy.com

Part 2: Specific Parameters

18. Dam Designer: Ardaman & Associates, Inc.

19. Non-Federal dam on Federal Property: ☐ yes ☒ no

20. Dam Type: Earthen

21. Core: Compacted Clayey Sand

22. Foundation: Clayey Sand

23. Dam Purpose(s): Treatment of Reverse Osmosis Brine

24. Year Completed: In Design

25. Year Modified: N/A

26. Dam Length (feet): 5776

27. Dam Height (feet): 11

28. Structural Height (feet):

29. Hydraulic Height (feet): 6.5

30. NID Height (feet): 11

31. Maximum Discharge (cubic feet per second): No Discharge except Evaporation

32. Maximum Storage (acre-feet): 85.8 33. Normal Storage (acre-feet): 85

34. NID Storage (acre-feet): 85.8

35. Surface Area (acres): 14.2

36. Drainage Area (acres): None

37. Downstream Hazard Potential: Low Hazard Potential

38. Emergency Action Plan: ☐ yes ☐ no ☒ not required

39. EAP Last Revision Date: N/A

40. Inspection Date: In Design

41. Inspection Frequency: Weekly

42. Spillway Type: None (Pump Transfer)

43. Spillway Width (feet): None

44. Outlet Gates: None

45. Volume of Dam (cy): 165,000

46. Number of Locks (#): N/A

47. Length of Locks (feet): N/A

48. Width of Locks (feet): N/A

Part 3: Supplemental Information

50. State Regulatory Agency: Florida Dept. of Environmental Protection

51. Federal ID: N/A

51. Federal Funding: N/A

52. Federal Design: N/A

53. Federal Construction: N/A

54. Federal Regulatory: N/A

55. Federal Inspection: N/A

56. Federal Operation: N/A

57. Federal Owner: N/A

58. Federal Other: N/A

Part 4: Condition Assessment

59. Condition Assessment: In Design

60. Condition Assessment Date: N/A

61. Operational Status: In Design

62. Operational Status Date: Anticipated Q4 2027

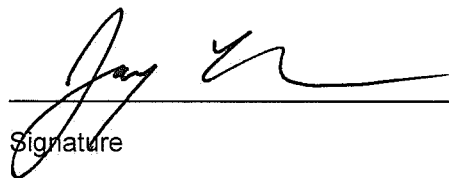
Part 5: Applicant or Applicant's Authorized Agent

I certify that all above information has been completed to the best of my knowledge.

Jay Chesser

GM III RRE Generation

Duke Energy Florida, L.L.C.


Signature

12/11/2005
Date

Dam Parameter Definitions

Condition Assessment

Assessment that best describes the condition of the dam based on available information.

Satisfactory
Fair
Poor
Unsatisfactory
Not Rated

A dam safety deficiency is defined as a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria.

Normal operations are defined as loading on the dam resulting from day-to-day pool operations to achieve authorized purposes in accordance with minimum state or federal criteria.

Condition Assessment definitions are as follows:

SATISFACTORY

No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines.

Typical Circumstances:

- No existing deficiencies or potentially unsafe conditions are recognized, with the exception of minor operational and maintenance items that require attention.
- Safe performance is expected under all loading conditions including the design earthquake and design flood.
- Permanent risk reduction measures (reservoir restrictions, spillway modifications, operating procedures, etc.) have been implemented to eliminate identified deficiencies.

FAIR

No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action. Note: Rare or extreme event is defined by the regulatory agency based on their minimum applicable state criteria.

Other Circumstances:

- Lack of maintenance requires attention to prevent developing safety concerns.
- Maintenance conditions may exist that require remedial action greater than routine work and/or secondary studies or investigations.
- Interim or permanent risk reduction measures may be under consideration.

POOR

A dam safety deficiency is recognized for normal operating conditions which may realistically occur. Remedial action is necessary. This rating may also be used when uncertainties exist for critical analysis parameters used to identify a potential dam safety deficiency. Investigations and studies are necessary.

Other Circumstances:

- Dam has multiple deficiencies or a significant deficiency that requires remedial work.
- Lack of maintenance (erosion, sinkholes, settlement, cracking, unwanted vegetation, animal burrows, inoperable outlet gates) has affected the integrity or the operation of the dam under normal operational conditions and requires remedial action to resolve.
- Critical design information is needed to evaluate the potential performance of the dam. For example, a field observation or a review of the dam's performance history has

identified a question that can only be answered by review of the design and construction history for the dam. Uncertainty arises when there is no design and/or construction documentation available for review and additional analysis is needed to better understand the risk associated with operation under normal operational conditions.

- Interim or permanent risk reduction measures may be under consideration.

UNSATISFACTORY

A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.

Typical Circumstances:

- A critical component of the dam has deteriorated to unacceptable condition or failed.
- A safety inspection indicates major structural distress (excessive uncontrolled seepage, cracks, slides, sinkholes, severe deterioration, etc.), advanced deterioration, or operational deficiencies which could lead to failure of the dam or its appurtenant structures under normal operating conditions.
- Reservoir restrictions or other interim risk reduction measures are required.
- A partial or complete reservoir drawdown may be mandated by the state or federal regulatory agency.

NOT RATED

The dam has not been inspected, is not under state or federal jurisdiction, or has been inspected but, for whatever reason, has not been rated.

Condition Assessment Date

Date of the most recent condition assessment of the dam.

Core

Indicates the position, type of watertight member and certainty.

Position:	Upstream Facing Homogeneous Core Unlisted/Unknown
Type:	Bituminous Concrete Concrete Earth Metal Plastic Unlisted/Unknown
Certainty:	Known Estimated

County

The name of the county in which the dam is located.

Dam Designer

Name of the principal firm(s) or agency accomplishing design of dam and major appurtenant operating features, and major modifications. Original designer is listed first, then modification designers (if applicable). If an Architect-Engineer Firm designed the dam under a state or federal government contract, the state or federal agency name is listed first, then the company name.

Dam Name

The official name of the dam. No abbreviations unless the abbreviation is a part of the official name. For dams that do not have an official name, the popular name is used.

Dam Height (Feet)

Height of the dam, in feet to the nearest foot, which is defined as the difference between the lowest elevation on the crest of the dam and the lowest elevation in the original streambed; or if not present, the lowest elevation of the downstream toe of the embankment.

Dam Length (Feet)

Length of the dam, in feet, which is defined as the length along the top of the dam. This also includes the spillway, powerplant, navigation lock, fish pass, etc., where these form part of the length of the dam. If detached from the dam, these structures should not be included.

Dam Owner Name (Alphanumeric)

Name(s) of the dam owner(s). If multiple owners, duplicate and complete this section for all other owners.

Dam Owner Type

Category describing the dam owner(s). List all dam owner types.

- Federal
- State
- Local Government
- Public Utility
- Private
- Tribe
- Not Listed

Local Government should have taxing authority or is supported by taxes. A Lake District is supported by taxes and considered Local Government. A lake association that is supported by association dues, would be Private.

Dam Purpose

Category describing the current purpose(s) for which the reservoir is used. List the most important purpose first.

- Debris Control
- Fire Protection, Stock, or Small Farm Pond
- Fish and Wildlife Pond
- Flood Risk Reduction
- Grade Stabilization
- Hydroelectric
- Irrigation
- Navigation
- Recreation
- Tailings
- Water Supply
- Other

Dam Type

Category describing the main type of dam. If more than one type, the most dominant used is listed first.

- Arch

Buttress
Concrete
Earth
Gravity
Masonry
Multi-Arch
Rockfill
Roller-Compacted Concrete
Stone
Timber Crib
Other

Date of Last Revision of Emergency Action Plan

Date of the most recent revision of the Emergency Action Plan.

Distance to Nearest City/Town (Miles)

Distance from the dam to the nearest affected downstream city/town/village (listed in the Nearest Downstream City/Town), to the nearest mile (and tenth, if appropriate).

Downstream Hazard Potential

Category indicating the potential hazard to the surrounding and downstream areas of a dam and its appurtenant structures should they fail or be mis-operated. The categories reflect probable loss of human life and impacts on economic, environmental, lifeline interests, and other concerns, such as water quality degradation. The hazard potential does not indicate the current condition of the dam or the risk of it failing.

The four categories are listed below and their definitions follow.

Low Hazard Potential
Significant Hazard Potential
High Hazard Potential
Undetermined

LOW HAZARD POTENTIAL

Failure or mis-operation is not expected to result in loss of human life and may result in low economic and/or environmental losses, that are largely limited to the owner's property.

SIGNIFICANT HAZARD POTENTIAL

Failure or mis-operation would not be expected to probably result in loss of human life, but can cause economic loss, environmental damage, disruption of lifeline interests, or impact other concerns, such as water quality degradation.

HIGH HAZARD POTENTIAL

Failure or mis-operation of the dam will probably cause the loss of human life. Economic, environmental, and lifeline losses may also occur, but they are not necessary for this classification.

Downstream Hazard Potential	Loss of Human Life	Economic, Environmental, & Lifeline Losses
High	Probable	Yes, but not necessary
Significant	None expected	Yes
Low	None expected	Low and generally limited to owner's property

UNDETERMINED HAZARD POTENTIAL

Dams for which a Downstream Hazard Potential, as defined above, has not been designated or is not provided.

Drainage Area (Square Miles)

Drainage area of the dam, in square miles, which is defined as the area that drains to the dam reservoir(s).

Emergency Action Plan

Indicates whether this dam has an Emergency Action Plan (EAP). An EAP is defined as a plan of action to be taken to reduce the potential for loss of human life and impacts to economic, environmental, and lifeline interests, and other concerns, such as water quality degradation, from failure or mis-operation of a dam or its appurtenant structures.

Yes

Not Required (because the dam is a Low Hazard Potential dam)

Federal Agency Involvement in Construction

Name(s) of federal agency involved in the construction of the dam.

Federal Agency Involvement in Design

Name(s) of federal agency that was involved in the design of the dam.

Federal Agency Involvement in Funding

Name(s) of federal agency that was involved in funding the dam.

Federal Agency Involvement in Inspection

Name(s) of federal agency that is involved in the inspection of the dam.

Federal Agency Involvement in Operation

Name(s) of federal agency that is involved in the operation of the dam.

Federal Agency Involvement – Other

Name(s) of federal agency that is involved in other aspects of the dam.

Federal Agency Involvement in Regulatory

Name(s) of federal agency that is involved in the regulation of the dam.

Federal Agency Owner

Name(s) of federal agency that partly or wholly owns the dam.

Federal ID

The unique identifier for each dam record. For saddle dams, dikes or other separate structures associated with the dam project, it is a concatenation of the primary dam's NID ID and the Other Structure ID. For all other dams, it is the NID ID.

Former Dam Name

Previous reservoir or dam name(s), if changed or combined into one dam system.

Foundation

The material upon which the dam is founded, and certainty.

Foundation: Rock
 Rock and soil
 Soil
 Unlisted/Unknown

Certainty: Known
 Estimated

Hydraulic Height (Feet)

Hydraulic height of the dam, in feet to the nearest foot, which is defined as the vertical difference between the maximum design water level and the lowest point in the original streambed or if not present, the lowest elevation of the downstream toe of the embankment.

Inspection Date

Date of the most recent inspection of the dam.

Inspection Frequency

The scheduled frequency interval for periodic inspections, in years.

Landowner Name(s)

Name(s) of the owner(s) of the land where the dam is located, if different than the dam owner. If multiple owners, duplicate and complete this section for all other owners.

Latitude

Latitude at dam centerline as a single value in decimal degrees, as measured by the North American Datum of 1983 (NAD83).

Length of Locks (Feet)

Length of the primary navigation lock to the nearest foot.

Lock Width (Feet)

Width of the primary navigation lock to the nearest foot.

Longitude

Longitude at dam centerline as a single value in decimal degrees, as measured by the North American Datum of 1983 (NAD83).

Maximum Discharge (Cubic Feet/Second)

Spillway discharge rate, in cubic feet per second, when the reservoir is at its maximum designed water surface elevation.

Maximum Storage (Acre-Feet)

Maximum storage is defined as the total storage space in a reservoir below the maximum attainable water level, including any surcharge storage (storage between the emergency spillway crest and top of dam). Maximum storage shall be calculated by using one of the two methods shown below that is most representative of the actual storage volume. The dam height may be used as a surrogate for maximum depth if the depth is unknown.

- Using the Average End Area Method (volume (acre-feet) = length (feet) x (A1 + A2 (end areas (acre)) / 2))
- Multiplying the maximum depth of the waterbody times the surface area of the waterbody times four tenths (impoundment storage (acre-feet) = depth (feet) x surface area (acre) x 0.4) (as provided in Title 210 – National Engineering Handbook, Part 650 Engineering Field Handbook, Chapter 11, *Ponds and Reservoirs*, United States Department of Agriculture Natural Resources Conservation Service).

Nearest Downstream City/Town

Name of the nearest downstream city, town, or village that is most likely to be affected by floods resulting from the failure of the dam.

NID Height (Feet)

Maximum value of either Dam Height, Structural Height, or Hydraulic Height. Accepted as the general height of the dam.

NID ID

The official National Inventory of Dams (NID) identification (ID) number for the dam. If the dam meets the NID criteria and it does not already have a NID ID, it will be assigned one by the State Dam Safety Officer. This field is used as the unique identifier for each NID dam.

NID Storage (Acre-Feet)

Maximum value of either Normal Storage or Maximum Storage. Accepted as the general storage of the dam.

Non-Federal Dam On Federal Property

Indicate yes or no whether this dam is a non-federal dam located on federal property.

Normal Storage (Acre-Feet)

Normal storage, in acre-feet, is defined as the total storage space in a reservoir below the normal retention level, including dead and inactive storage and excluding any flood control or surcharge storage. For normally dry flood control dams, the normal storage will be zero. If unknown, enter *UNK* and not zero.

Number of Separate Structures

Number of separate structures associated with this dam project. Include saddle dams (or dikes), which are subsidiary dams of any type constructed across a saddle or low point on the perimeter of a reservoir, as defined in FEMA 148: *Federal Guidelines for Dam Safety*, Glossary of Terms. Do not include the number of appurtenant works which are defined as, but not limited to, such structures as spillways, either in the dam or separate there from; the reservoir or its rim; low level outlet works; and water conduits, such as tunnels, pipelines or penstocks, either through the dam or its abutments.

Number of Locks

Number of existing navigation locks for the project.

Operational Status

The category that best describes the operational or remediation activities of the dam based on available information.

Normal Operations

Under Investigation, Planning, Permitting, or Design for Remediation

Under Remediation

Enforcement Pending/Ongoing

Not Applicable.

A dam safety deficiency is defined as a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria.

Operational Status definitions are as follows:

NORMAL OPERATIONS

No existing or potential dam safety deficiencies are recognized. Dam is operating without restrictions. Applies to dams with a Satisfactory or Fair Condition Assessment.

The Operational Status categories below apply to dams with a Fair, Poor, or Unsatisfactory Condition Assessment.

UNDER INVESTIGATION, PLANNING, PERMITTING, OR DESIGN FOR REMEDIATION

A dam safety deficiency is recognized but uncertainties may exist. Dam remediation plan is currently under investigation, planning, permitting or design review. Temporary risk reduction measures, such as reservoir restrictions or early warning systems, may be in place to decrease the risk caused by the known deficiencies.

UNDER REMEDIATION

A dam safety deficiency is recognized. Temporary risk reduction measures, such as reservoir restrictions, may be in place to decrease the risk caused by the known deficiencies. Active remedial measures or construction are occurring to correct the known deficiencies.

ENFORCEMENT PENDING / ONGOING

A dam safety deficiency is recognized. Dam owner is unresponsive and not taking risk reduction or remediation measures to make the dam meet applicable regulatory criteria. Regulatory agency may be already taking enforcement action against the dam owner.

NOT APPLICABLE

The dam has not been inspected, is not under state or federal jurisdiction, or has been inspected but has not been assigned a condition assessment. Applies to dams with no Condition Assessment.

Operational Status Date

Date of the most recent assessment of the operational status.

Other Dam Names

Names other than the official name (for example, reservoir name), of the dam in common use.

Other Structure ID

The identification number (S001, S002, etc.) of a separate structure, such as a saddle dam or dike, associated with the dam project. This field only applies to saddle dams, dikes or other separate structures associated with a primary dam.

Outlet Gates

Category describing the type of (1) spillway and (2) controlled outlet gates, if any. List outlet gates in decreasing size order, followed by number of gates.

None
 Uncontrolled
 Tainter (radial)
 Vertical Lift
 Roller
 Bascule
 Drum
 Needle
 Flap
 Slide (sluice gate)
 Valve
 Other controlled

River or Stream

The official name of the river or stream on which the dam is built. If the stream is unnamed, identify it as a tributary (-TR) to a named river or stream, e.g., *Snake-TR*. If the dam is located offstream, enter the name of the river or stream plus "-OS", e.g., *Snake-OS*.

Section, Township, Range Location

This information provides the dam location identified in the Public Land Survey System, such as, *S05 T01S R01E*. If the prime meridian location is needed to locate the dam within the state, include it in the field, e.g., *S05 T01S R01E (Sixth Prime Meridian)*.

Spillway Type

Category describing the type of spillway.

Controlled
 Uncontrolled
 None

Spillway Width

The width of the spillway, to the nearest foot, available for discharge when the reservoir is at its maximum designed water surface elevation. Typically for an open channel spillway, this is the bottom width. For pipe spillways or drop inlets that have diameters, use the diameter of the pipe.

State Agency / Permit Number

Name of State permitting agency and permit number, if permitted.

State Regulatory Agency

Name of the primary state agency with regulatory or approval authority over the dam. In most cases, this is the Water Management District where the dam is located or a specific Florida Department of Environmental Protection program.

Structural Height (Feet)

Structural height of the dam, in feet to the nearest foot, which is defined as the vertical distance from the lowest point of the excavated foundation to the top of the dam. Top of dam refers to the parapet wall and not the crest.

Surface Area (Acres)

Surface area, in acres, of the impoundment at its normal water level.

Volume of Dam (Cubic yards)

Total number of cubic yards occupied by the materials used in the dam structure. Portions of powerhouse, locks, and spillways are included only if they are an integral part of the dam and required for structural stability.

Year Completed

Year (four digits) when the original main dam structure was completed. If unknown, and a reasonable estimate is unavailable, enter *UNK*.

Year Modified

Year (four digits) when major modifications or rehabilitation of dam or major control structures were completed. Major modifications are defined as a structural, foundation, or mechanical construction activity which significantly restores the project to original condition; changes the project's operation; capacity or structural characteristics (for example, spillway rehabilitation); or increases the longevity, stability, or safety of the dam and appurtenant structures.

Follow the year with the category describing the type of modification.

Foundation
Hydraulic
Mechanical
Seismic
Structural
Other