



Office of Engineering  
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John Bel Edwards, Governor  
Shawn D. Wilson, Ph.D., Secretary

January 24, 2022

Joe Beale  
P.O. Box 220  
BUSH, LA 70431

Re: **Heron Lake Dam**  
**Dam Inspection Report**  
NID ID No.: LA00396  
St. Tammany Parish

Dear Mr. Beale,

The Dam Safety Program of the Public Works and Water Resources Section of the Louisiana Department of Transportation and Development (LA DOTD) is responsible for regulating the Louisiana Dam Safety Program (R.S. 38:21-28). As part of the ongoing implementation of the program, LA DOTD has obtained the services of ECM Consultants, Inc. to conduct safety inspections of dams falling within the state regulatory jurisdiction. The inspections are performed in order to minimize potential hazards to downstream life and property in the event of a dam failure.

An inspection of the **Heron Lake dam was performed on 12/15/2021. Please see enclosed Inspection Report for deficiencies.** Also included are reference materials relevant to the inspection results and general educational materials as well as a Dam Inspection Performance survey. If you have any questions regarding inspection of dams or enclosed report, please contact me by email at [timothy.harper@la.gov](mailto:timothy.harper@la.gov), or by phone at (225) 379-3012. You may also contact the State Dam Safety Official, Mr. Bradley A. Sticker, P.E., by email at [brad.sticker@la.gov](mailto:brad.sticker@la.gov), or phone at (225) 379-3006.

Sincerely,

Tim Harper, P.E.  
DOTD Dam Safety Program

c: Bradley A. Sticker, P.E., State Dam Safety Official (elec w/o enclosure)  
Jennifer D. Branton, P.E., District 62 (DOTD) (elec w/o enclosure)  
Phillip Dibenedetto, E.I., District 62 (DOTD) (elec w/ enclosure/ftp)  
Benjamin J. Dow, Inspector, ECM Consultants, Inc. (elec w/ enclosure/ftp)



# LADOTD DAM INSPECTION AND EVALUATION REPORT

Inspection Date: 12/15/2021

**Reviewed and Approved by:**

Name (Signature): John A. Rasi  
Name (Typed or Printed): John A. Rasi, P.E.  
Firm Name: ECM Consultants, Inc.  
Address: 8048 One Calais Ave., Suite F  
City, State, Zip Code: Baton Rouge, LA 70809  
Phone: (225) 615-7885



Name of Dam: Heron Lake  
Downstream Hazard: Low  
NID ID #: LA00396  
Parish: St. Tammany  
DOTD District: 62  
District Contact: Jennifer Branton, P.E.

*John Alan Rasi*  
*1-20-2022*

## ■ OWNER INFORMATION

Name of Owner: Whippoorwill Grove, Inc.  
Person to Contact: Joe Beale, Whippoorwill Grove Inc  
P.O. Box 220  
Bush, LA, 70431  
Tel.: (504) 812-3149

## ■ DAM INFORMATION

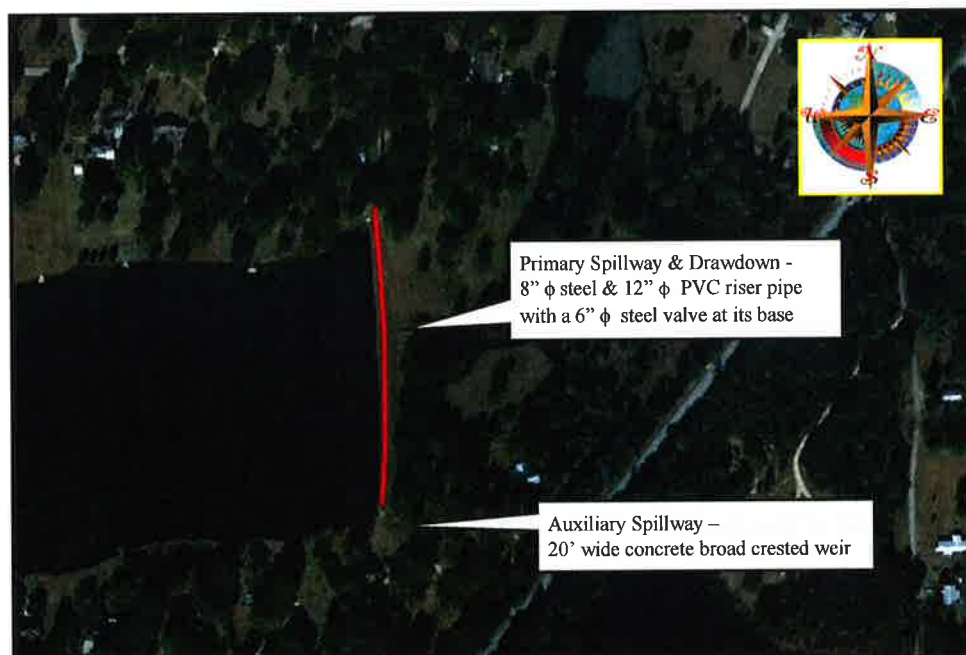
### Location of Dam

Directions to the dam are as follows:

1. From the intersection of US Highway 190 and LA Highway 21, in Covington, proceed 11 miles northeasterly on LA 21.
2. Turn left onto Fairgrounds Boulevard and proceed ¼ mile northwesterly.
3. Turn right onto Red Hawk Lane and proceed 0.3 miles easterly.
4. Turn left onto the access road to the dam and proceed about 500 feet northeasterly to the south end of the dam.



Plan view of Heron Lake Dam (vicinity)



Plan view of Heron Lake Dam (dam site)

## Description of Dam

Heron Lake Dam consists of an earthen embankment stretching 760 feet from the northern abutment to the attached 20-foot wide auxiliary spillway, making a total length of 780 feet. The primary spillway consists of a riser pipe located near mid-length of the embankment; there is a gate valve at the base of the riser pipe that can be used to draw down the reservoir.

Dam height	12.0 feet
Structural height	12.0 feet
Hydraulic height	10.0 feet
Maximum discharge	64.0 cubic feet/second
Maximum storage	160.8 acre-feet
Normal storage	134.0 acre-feet
Surface area	26.8 acres
Drainage area	1.0 square miles

## History of Dam

The Heron Lake Dam was designed by Dave Goodyear and was constructed by Dave Goodyear in 1988. No other history of the dam was available at the time of the inspection.

## ■ INSPECTION TEAM

### Name

Benjamin Dow, ECM

Kumar Ambati, ECM

Grant Berne, DOTD

Joe Beale, Whippoorwill Grove

## ■ INSPECTION RESULTS

### Brief Description of Condition of Dam and Summary Items Requiring Attention

The Heron Lake Dam is in fair condition and fulfilling its intended purpose. The inspection was made on a clear and sunny day with good visibility. The following items require attention:

#### Crown Deficiencies:

None

#### Downstream Embankment Deficiencies:

- ☐ Animal burrows are present which may lead to seepage or slope stability problems, and they require immediate attention.

#### Upstream Embankment Deficiencies:

- ☐ Animal burrows are present which may lead to seepage or slope stability problems, and they require immediate attention.

**Spillway Deficiencies:**

Spillway 1 (Primary):

None

Spillway 2 (Auxiliary):

None

**Outlet Works Deficiencies:**

None

**Irrigation Deficiencies:**

None

**Instrumentation Deficiencies:**

None

**Corrected Items from Last Inspection:**

None

**Present Pool Elevation (ft.)**

1.5 feet below auxiliary crest.

**Present Tailwater Elevation (ft.)**

None

**Operation and Maintenance Procedures**

Operation and maintenance procedures are the responsibility of the owner. There were no written operation or maintenance records available during the inspection.

**■ EARTH EMBANKMENTS****Dimensions/Shape/Describe Overall Condition**

This dam consists of a 760-foot long earthen embankment that runs along the eastern shore. The crown width is 14 feet. The upstream slope descends from the crown at a vertical rate, and the downstream slope descends from the crown at a 4H: 1V rate.

**Dam Embankment - Crown**

<b>Crown Width (Ft.):</b>	14
<b>Crown Length (Ft.):</b>	760
<b>Crown Description:</b>	Earthen crown with grass coverage
<b>Fence:</b>	None
<b>Abutment:</b>	Both abutments appear satisfactory.
<b>Comments:</b>	No additional comments.



*No deficiencies identified*



Embankment Crown Photo 1



Embankment Crown Photo 2

### Dam Embankment - Downstream Embankment

**Embankment Description:** Earthen embankment with grass coverage.  
**Embankment Slope:** 4H: 1V  
**Berm Description:** None  
**Berm Slope:** None  
**Toe Area:** The area at the embankment toe is Cormorant Lake.  
**Comments:** No additional comments.  
**Deficiencies (1):**

Type	Description	Corrective Action
Animal Burrows	Animal burrows are present which may lead to seepage or slope stability problems, and they require immediate attention.	Excavate, inspect, backfill, compact in lifts and re-establish sod cover. Establish/improve animal abatement program.



Downstream Embankment Photo 1



Downstream Embankment Photo 2



Downstream Embankment Photo 3



Downstream Embankment Photo 4



Downstream Embankment Photo 5

### **Dam Embankment - Upstream Embankment**



**Embankment Description:** Earthen embankment with grass coverage and a timber bulkhead.

**Embankment Slope:** Vertical (timber bulkhead)

**Protection Type:** The shore protection consists of a treated timber bulkhead.

**Comments:** In front of the timber bulkhead are small rocks that assist with erosion.

**Deficiencies (1):**

Type	Description	Corrective Action
Animal Burrows	Animal burrows are present which may lead to seepage or slope stability problems, and they require immediate attention.	Excavate, inspect, backfill, compact in lifts and re-establish sod cover. Establish/improve animal abatement program.



Upstream Embankment Photo 1



Upstream Embankment Photo 2



Upstream Embankment Photo 3



Upstream Embankment Photo 4



Upstream Embankment Photo 5



Upstream Embankment Photo 6

## ■ SPILLWAY

<b>Spillway Classification:</b>	Primary
<b>Spillway Type:</b>	Uncontrolled
<b>Spillway Description:</b>	8-inch diameter steel pipe that runs through the embankment and is connected to a 12-inch diameter PVC riser pipe with a half-pipe chute discharge.
<b>Crest Description:</b>	The top of the riser pipe and the discharge chute appear adequate.
<b>Stilling Basin:</b>	None
<b>End Sill:</b>	None
<b>Approach Channel:</b>	None
<b>Discharge Channel:</b>	None. The pipe discharges directly into Cormorant Lake.
<b>Gates and Operations:</b>	None
<b>Spillway Drains:</b>	None
<b>Comments:</b>	The riser pipe portion has been replaced with a 12-inch PVC pipe and discharge chute.

*No deficiencies identified*





Primary Spillway Photo 1



Primary Spillway Photo 2



Primary Spillway Photo 3



Primary Spillway Photo 4

**Spillway Classification:** Auxiliary  
**Spillway Type:** Uncontrolled  
**Spillway Description:** 20-foot wide concrete broad crested weir  
**Crest Description:** The concrete broad crested weir appears  
**Stilling Basin:** None  
**End Sill:** None  
**Approach Channel:** None  
**Discharge Channel:** Earthen swale that flows into Cormorant Lake.  
**Gates and Operations:** None  
**Spillway Drains:** None  
**Comments:** No additional comments.

*No deficiencies identified*





Auxiliary Spillway Photo 1



Auxiliary Spillway Photo 2



Auxiliary Spillway Photo 3



Auxiliary Spillway Photo 4



Auxiliary Spillway Photo 5



Auxiliary Spillway Photo 6

## ■ OUTLET WORKS

### **Type and Description:**

There is a 6-inch diameter steel pipe and gate valve at the base of the riser pipe that can be used as a drawdown.



<b>Intake Structure:</b>	The intake is the upstream end of the riser pipe.
<b>Outlet Channel:</b>	The pipe discharges directly into the downstream Cormorant Lake.
<b>Gates and Related Devices:</b>	The gate valve appears functional.
<b>Comments:</b>	No additional comments.

*No deficiencies identified*



Outlet Works Photo 1



Outlet Works Photo 2

## ■ IRRIGATION STRUCTURE

<b>Type and Description:</b>	None
<b>Irrigation:</b>	None
<b>Intake Structure:</b>	None
<b>Outlet:</b>	None
<b>Channel:</b>	None
<b>Gates and Related Devices:</b>	None
<b>Comments:</b>	None

*No deficiencies identified*

## ■ INSTRUMENTATION

<b>Monumentation/Surveys:</b>	None
<b>Observation Wells:</b>	None
<b>Weirs:</b>	None
<b>Piezometers:</b>	None
<b>Staff Gage Description:</b>	None
<b>Staff Gage Reading (Ft.):</b>	1.5 feet below auxiliary spillway crest
<b>Tailwater Staff Gage Description:</b>	None
<b>Tailwater Staff Gage Reading (Ft.):</b>	None

**Comments:** None

*No deficiencies identified*

## ■ OBSERVATION POINTS

**Name:** French drain  
**Location/Description:** Downstream slope  
**Latitude:** 30.59743  
**Longitude:** -89.96113  
**Comments:** French drain through embankment. It discharges through a 4-inch-diameter corrugated plastic pipe.

*No deficiencies identified*



Observation Point Photo 1



Observation Point Photo 2



Observation Point Photo 3



Observation Point Photo 4





Observation Point Photo 5



Observation Point Photo 6

## ■ RESERVOIR

### Slope

The reservoir slopes appear to be in satisfactory condition and fulfilling their intended purpose.

### Bank

The reservoir banks appear to be in satisfactory condition and fulfilling their intended purpose.

### Sedimentation

There were no visible areas of sedimentation occurring within the reservoir at the time of the inspection.



Reservoir Photo 1



Reservoir Photo 2

