

STRUCTURE 192

This structure is a single-barreled, corrugated metal pipe culvert in L-63N at the natural channel of Taylor Creek, about a mile north of the City of Okeechobee. Control is effected by a manually operated sluice gate mounted on a reinforced concrete head structure. The structure also incorporates a small backpumping station.

PURPOSE

This structure permits some discharge to be made down Taylor Creek although its flow normally is diverted down L-63N. The structure also permits backpumping from the lower reaches of Taylor Creek into L-63N, thus diluting the poor quality water in that water body at certain times of the year.

OPERATION

This structure is normally closed. It is opened for two purposes.

- (1) When, for maintenance purposes, it is necessary to divert flows away from L-63N.
- (2) When the water quality in lower Taylor Creek is degraded (i.e., by discharge of the sewage treatment plant) and Lake Okeechobee is sufficiently low to permit gravity flow into the lake (below elevation 14.0)

The pump is operated only when the water quality in lower Taylor Creek is degraded (i.e., by discharge from the sewage treatment plant) and Lake Okeechobee is too high to permit flow into the lake (above elevation 14.0). At such times, S-193 is opened enough to discharge about the same flow as S-192 is pumping.

FLOOD DISCHARGE CHARACTERISTICS

Pump station has not been used operated in 20+ years. Commercial power is no longer available. Modifications/rehabilitation to structure are in review. This structure is not designed to pass flood flows, which are diverted to the south and east into Lake Okeechobee via L-63N, L-59, and S-191. Nevertheless, the Detail Design Memorandum gives the following information:

Flood Discharge	Headwater Elevation (feet)	Tailwater Elevation (feet)
Design	21.6	13.0
Standard Project Flood	26.0	16.0
Optimum	19.0	14.0
Minimum	12.0	10.0

DESCRIPTION OF STRUCTURE

Type Structure consists of a gravity system and a pump system through L-63N. The gravity system is a corrugated metal pipe with a sluice gate on the upstream (north) end.

The pump system consists of a pump mounted in a wet well in a control house on the downstream(south) side of the structure, discharging through a plain steel discharge pipe.

Gravity System

Number of Barrels:	<u>1</u>
Size of barrel	<u>48 inches</u>
Length of barrel	<u>112 feet</u>
Culvert flow line elevation	<u>8.0 feet</u>
Service bridge elevation	<u>29.4 feet</u>
Water level which will by-pass structure	<u>29.4</u>

Control Structure Discharge is controlled by a sluice gate mounted on a reinforced concrete headwall structure on the upstream (north) end of the culvert.

Gates

Number	1
Type	<u>sluice gate mounted on inlet structure</u>
Size	<u>48" square</u>
Control	<u>Manual</u>
Sill Elevation:	<u>8.0 feet</u>

Lifting Mechanism

Type pedestal mounted, manually operated hoist

PUMP SYSTEM

Number of Pumps: 1
 Size and Type of Pump: 20 inch vertical propeller
 Design Rating: 13,500 gpm (30 cfs)
 Impeller Speed: 875 rpm
 Pump Manufacturer: Johnson
 Motor Make & Type:
 Motor Horsepower: 40
 Motor Speed: 875 rpm

Gates

Location: Discharge (North) end of discharge pipe
 Size: 24 inch diameter
 Type: flap gate

Discharge Pipe:

Number of Barrels: 1
 Size of Barrel: 24 inch
 Length of Barrel: about 95 feet
 Flow Line Elevation: 15.0 feet on inlet (south) end
8.0 feet on outlet (north) end

Control Structure:

Type: Reinforced concrete house with pump mounted in wet well
 Service Floor Elevation: 20.5 feet
 Sump Invert Elevation: 5.0 feet
 Propeller Inlet Elevation: 8.0 feet
 Minimum Water Surface Elevation For Pumping: 9.5 feet

Power Source: None**ACCESS:** From U.S. 441 via Evergreen Cemetery Road (about 1 1/2 mile north of the City

of Okeechobee) about 1/10 mile to north end of L-63N, then via L-63N about 1/2 mile to structure.

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level Upstream and downstream staff gauges only

Gate Position Recorder None

DEWATERING FACILITIES

Storage: Okeechobee Field Station

Type: timber stop logs

Location: pump sump

Number: 20

Size: 6" X 6" X 7'