

J. D. Murphree Wildlife Management Area Impoundments

(Formerly Big Hill Dam and Big Hill Reservoir)

OWNER

Texas Parks and Wildlife Department. Operated for a wildlife refuge and recreational purposes.

ENGINEER (Design)

Texas Parks and Wildlife Department.

LOCATION

This is an off-channel project near Big Hill and Taylor Bayous in Jefferson County, at Port Acres.

DRAINAGE AREA

Water is acquired by gravity flow from Big Hill Bayou.

EMBANKMENTS

Type	Earth levees constructed from marsh land
Height	Variable 4 to 6 ft
Top elevation	Variable 5.0 to 6.0 ft above msl
Width	8.0 ft crown with 5:1 slopes
Length	40 miles of levee

SPILLWAY

None.

OUTLET WORKS

Reinforced concrete structure housing three 24-inch sluice gates connected to 24-inch cement asbestos pipes. The sluice gates are hand operated to control elevation of water in compartments.

STATE AUTHORIZATION

Permit No. 1932 (Application No. 2111), July 9, 1959, allows storage of 32,000 acre-feet of water.

RESERVOIR DATA

Number compartments	11
Capacity at elevation 2 ft above marshlands	13,500 acre-feet
Area (total all compartments)	6,881 acres

The average marsh elevation varies from +0.5 to +2.5 feet above msl. In periods of extreme high tides the entire area is inundated.

Project consists of 11 various size compartments ranging in area from 200 acres to 1,028 acres. All compartments have similar levees and outlets works except compartments 9, 10, and 11 which have additional structures used for introduction of salt or brackish water. Between any two adjoining compartments there is a concrete structure with one 24-inch sluice gate and pipe to allow water to flow between compartments.

GENERAL

Construction started	September 1959
Impoundment began	1960
Project completed	September 1964
Contractors	M. J. Wolf, Metairie, Louisiana L. W. Richardson, Aransas Pass, Texas Circle, Inc., Harvey, Louisiana Pardue Co., Port Arthur, Texas M. A. Moorhead, Anahuac, Texas
Cost	\$600,000

