

Spring Bayou Lake Commission

January 21, 2019

Supplemental Document to the Minutes

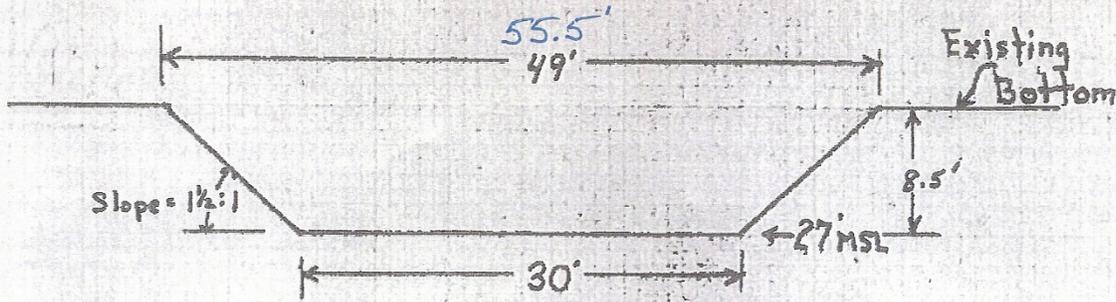
Boggy Bayou Dredging

Commissioner Hale presented a diagram for a dredging proposal by LDWF Biologist Jody David which calculates the amount of dredged material and cost to construct a channel on Boggy Bayou starting at the Spring Bayou Wildlife Management Area where department ownership ends to go to the end of Boggy Bayou where it runs into Little River and then towards the first bridge in Little River. The LDWF's plan called for a channel to be dredged to 27-foot MSL and have a 25-foot bottom with a 1.5% slope. The dredged material would be deposited adjacent to the channel on the south and west on the southwest side. This procedure was expected to encourage the growth of trees then reducing water temperature due to their shade. Gaps were to be cut every 300-feet thereby not impeding water flow. The purpose was to facilitate dewatering, improve boating access, and promote fish spawning habitat. If trees were damaged during the dredging, penalties were to be enforced. This dredging with a 25-foot bottom, 2,377-yards (1.35 miles) long, and approximately 10-feet of vertical sediment removal was proposed for the project at a total projected cost of \$135,000.00 using a marsh-buggy dragline. However, in 1989 when the dredging was actually performed, the dredged channel was a 30-foot bottom for 6,160 yards long instead of the proposed 25-foot bottom with all other variables kept the same. The 6,160-yards long actual dredge of 1989 with a 30-foot bottom had an average cross section of 37.3-square yards for a total volume removed of 229,768-cubic yards. The project was completed using a dragline on a barge. This plan was paid for with a capital outlay grant applied for in 1988.

Commissioner Hale then took the LDWF proposed plan and computed the current calculations of the 2,377-yard (7,131-feet long or 1.35-miles) dredged channel with a cross section of 400-square feet and a total volume of 105,644-cubic yards to be dredged. Using the original cost of \$3.50 per cubic yard with a dragline the updated project would cost \$389,754.00. Reference was made to the monies applied for by the Police Jury for work on the dam that would cover this cost. Discussion ensued on the updated figures presented by Commissioner Hale. Discussion ensued that the dredging would be the same cross section as the 1989 dredging with the exception that the proposed bottom channel would be 25-feet wide instead of 30-feet wide. Dredging a 25-foot bottom with a 1.5:1 side slope would give a 55-foot width across the top. When the water is at pool stage with a dam height of 41-feet there's approximately 4-feet of water in Boggy Bayou. This gives a ground elevation of 37 MSL resulting in a 10-foot dredged depth.

1989 SPRING BAYOU CHANNELIZATION PROJECT

Average Cross Section

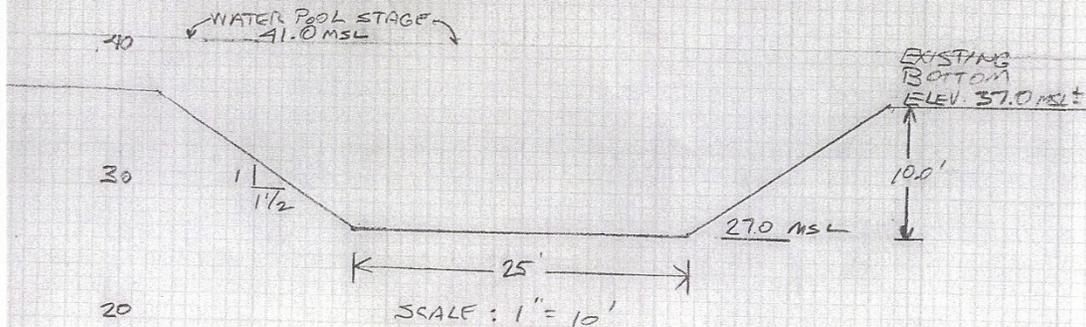


Length of Channel = 6,160 yards

Average Cross Section = 37.3 square yards

Total Volume to be Removed = 229,768 cubic yards

BOGGY BAYOU / LITTLE RIVER TYPICAL CROSS SECTION



	LDWF	ARTHA
LENGTH OF CHANNEL =	2377 YARDS	(7131') FT
AVERAGE CROSS SECTION =	139 sq	(400 SF)
TOTAL VOLUME =	33,040 cy	(105,649 cy) ✓

ESTIMATED COST (DIAPHRAGM)
 @ \$3.50/cy = \$135,640 * (\$389,754.00) *

ESTIMATED COST (CUTTER/SUCTOR) ?

* INCLUDES \$20,000.00 MOB/DEMOS

