

Preliminary Dredge Project Estimate

Messick Lake

Lagrange County, IN. 6/22/2024

Aquatic Hydraulic Dredging, LLC (AHD) has prepared this estimate using all available preliminary data, as well as visiting the site in person to determine the most accurate estimate for your project. The numbers in this estimate reflect using a retention pond in a desirable location meaning within 3,000ft pumping distance, due to heavy material from the channel bed (mostly the half nearer Messick Lake). Elevation may decrease pumping distance capabilities as well.

Main Channel (no sediment trap)-



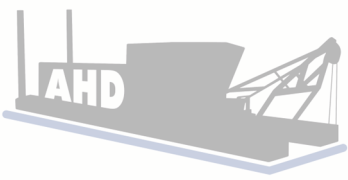
Dimensions- 1980ft x 50ft

Square feet- 99,000 ft²

Cubic yards- 9,954 yd³

Final depth- 6ft

Price dredging only- \$149,310



Optional Sediment Trap-



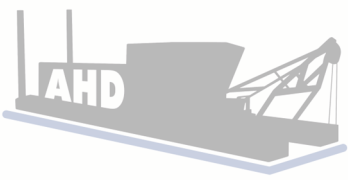
Dimensions- 200ft x 50ft

Additional removal- 4ft

Cubic yards- 1,482 yd³

Final depth- 10ft

Price dredging only- \$22,230 (double for 400ft x 50ft trap)



North Channels



N1(West)- 85ft x 30ft

Removal- 4ft

Cubic yards- 380 yd³

Final depth- 6ft

Price dredging only- \$5,700

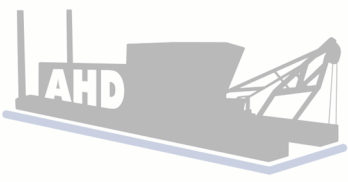
N2(East)- 180ft x 50ft

Removal- 3ft

Cubic yards- 1,000 yd³

Final depth- 6ft

Price dredging only- \$15,000



South Channels

S1(Westmost)- 100ft x 50ft

Actual surface area- 4,200 ft²

Removal- 4ft

Cubic yards- 620 yd³

Final depth- 6ft

Price dredging only- \$9,300

S2- 140ft x 40ft

Removal- 5.5ft

Cubic yards- 1,140 yd³

Final depth- 6ft

Price dredging only- \$17,000

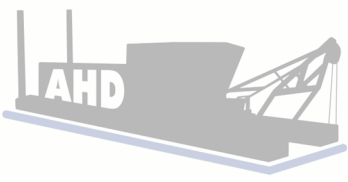
S3- 90ft x 40ft

Removal- 5ft

Cubic yards- 670 yd³

Final depth- 6ft

Price dredging only- \$10,000



S4- 110ft x 40ft

Removal- 5ft

Cubic yards- 815 yd³

Final depth- 6ft

Price dredging only- \$12,250

S5- 285ft x 50ft

Removal- 2.5ft

Cubic yards- 1,320 yd³

Final depth- 6ft

Price dredging only- \$20,000

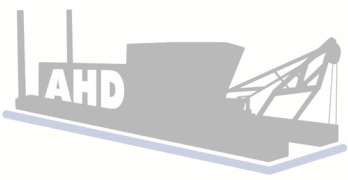
S6(Eastmost)- 390ft x 50ft

Removal- 3.5ft

Cubic yards- 2,530 yd³

Final depth- 5-6ft

Price dredging only- \$38,000



Total Costs and Exclusions

Price Breakdown Using Retention Pond

Main Channel- 9,954yd ³	\$149,310
N1- 380 yd ³	\$5,700
N2- 1,000 yd ³	\$15,000
S1- 620 yd ³	\$9,300
S2- 1,140 yd ³	\$17,000
S3- 670 yd ³	\$10,000
S4- 815 yd ³	\$12,250
S5- 1,320 yd ³	\$20,000
S6- 2,530 yd ³	\$38,000
Mobilization/demobilization	\$25,000
Retention Pond construction/ land restoration	\$45,000

Total- \$346,560

Sediment Trap Option 1

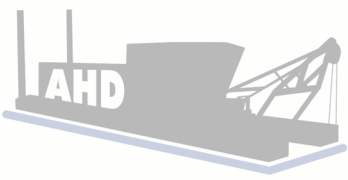
200ft x 50ft x 4ft Removal- 1,482 yd ³ = 10ft Depth	\$22,230
--	----------

Sediment Trap Option 2

400ft x 50ft x 4ft Removal- 2,964 yd ³ = 10ft Depth	\$44,460
--	----------

Additional Expense Estimates

Permitting	\$3,500
Land Use Fees	\$0-\$20,000
Pipe over/under road crossings (Each occurrence)	\$2,500-\$10,000
Use of a booster pump if pumping distance exceeds 3,000ft	\$60,000

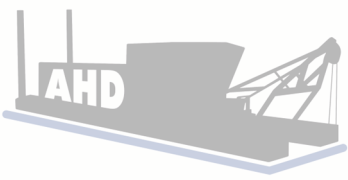


How Does It Work?



AHD utilizes hydraulic cutterhead suction dredges. These dredges are equipped with 250hp diesel engines and industrial sand/gravel mining pumps as well as hydraulic cutterheads which are capable of excavating and pumping material thousands of feet through our 8" HDPE dredge pipe. With the use of booster pumps our pumping distance is infinitely expandable.

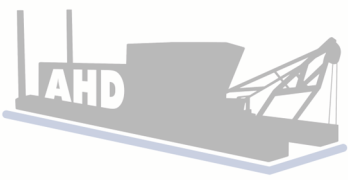




Retention Ponds

The most cost-effective way to retain and dispose of dredged material is often through creating our own temporary sediment retention pond. Using this method, we can typically create earthen berms from the fill dirt already at the sediment disposal site using these to create a pond. We then use a water control structure to allow the clean water to exit the pond while the dredged material remains in the pond. When the dredging process is done, and after an adequate drying time, we can close the pond using the dirt originally used to create the berms. This leaves the land usable again after we are finished.

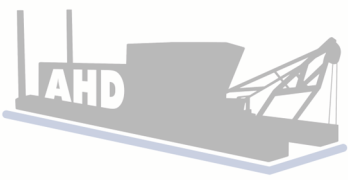




Geotextile Dewatering Tubes

Another sediment retention method is using geotextile dewatering tubes. These tubes use an open weave material to allow water to exit while retaining dredged sediment inside. This allows you the ability to dredge where there isn't the ability to create a retention pond. Using geotubes can also be less intrusive in many cases. Once a geotube is filled with sediment, it is allowed adequate time to dry before being cut open and the material hauled off. Geotextile dewatering is not typically the most cost effective method for retaining dredged sediment.





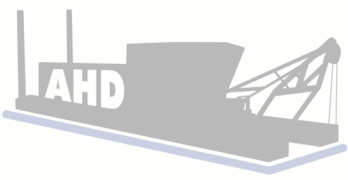
Project Expectations and Capabilities

AHD can maintain a high rate of production in many different environments. Our equipment can move bulk sediment most efficiently when it is a material that can be easily agitated such as loose sand, muck or silt. In these types of sediment, we can typically dredge at nearly double the rate as we experience in hardpacked sand and gravel. We aim to achieve 100 linear feet of dredging each day in most cases. In areas with unfavorable conditions such as dense weeds, immense amounts of debris, or dredging multiple feet of hardpacked materials our speeds may be affected.

Experience and Reputation

AHD is a family owned and operated company with a combined work experience of over 15 years. We specialize in Hydraulic dredging and everything that has to do with it. We pride ourselves on providing premium quality work without the premium price. We strive to maintain good communication and remain as open and informative as possible throughout the entire dredge process.





References, Bonds and Insurance

AHD maintains all necessary coverages to perform work in the states we service. We can provide any required documents at your request and include them in our formal bid, shall this project proceed. Please specify in your RFB if you would like any special documents such as but not limited to- W-9, Proof of Insurance/named as additionally insured, Professional references, Bid bonds ETC.

Thank you for your consideration on this project, please reach out if you have any additional needs!

Sincerely,

James Schaedig

