

# Parallel Dredging Operation

February 9, 2019

Team #2

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## Project Goal

Supplement current dredging project to increase the rate at which lake is being dredged while keeping safety as our #1 objective.

# Why Dredge?

- VALUE of the association itself
- Property value for ALL home owners
- Financial ( what are people spending on circulators, boat repairs, chemicals, etc.)
- Health of Lake
  - Rid lake of invasive species
  - Rid lake of farm run off
  - Healthy Dam
- Recreational activities
  - Boating, kayaking, paddle boarding, sailing, jet skiing
  - Fishing, fish fries
  - Swimming
  - Picnics
- Aesthetics
- Protecting the environment
  - Our water feeds Lake Erie
  - We are a tributary for the Grand River which is currently being dredged
  - Health of Lake Erie (part of Lake Erie Watershed)

## Why Parallel Dredging Operation?

- ~6,000 cubic yards of sediment removed from lake each year
- If we continue at current rate we will be required to continually dredge as the lake sediment is continually washing into our lake. If we do a parallel dredging operation, we can double or triple amount of sediment removed each year

# Assumptions

- Current mechanical procedure works (Eclipse, ShoreLine)
- Need addendum for additional cubic yards – 6 month process estimate (Army Corp of Engineers)
- Current equipment does not need replaced or extensive repairs
- Dewatering Site continues to function as is – no expansion
- Rate for temporary workers for cutting grass, opening pools is \$20 per hour
- 40 hour week operation
- 10 week operation

# Project Resources

- Permits – need addendum
- Equipment – Buy vs. lease vs. Outside Company
- Personnel (temporary)
  - Would use permanent employees to dredge, temp to do other tasks – cutting grass, opening pools, etc.
  - Would farmers come and take sediment in their own truck?
- Dewatering Site (use existing)
  - Can famers take it directly to their own site?

# Costs for 3 options

- Option 1 – Purchase used equipment at ~\$100,000 plus \$50,000 personnel expenses
  - Truck – 15 to 16 ton
  - Dump Scowl
  - Excavator
  - Barge
  - Personnel ~\$50,000 – see next slide
- Option 2- Lease equipment for 10 weeks is ~\$65,000 plus \$50,000 personnel expenses
  - Truck is \$100 hr with driver (\$40,000)
  - Excavator is \$5,000 per month with Operator (12,500 for 10 weeks) if you can find one for water use
  - Scowl and barge may be \$5,000 per month (12,500 for 10 weeks) difficult to get exact costs
  - Personnel ~\$50,000 – see next slide
- Option 3 - Use Outside Firm for parallel operations
  - \$238,200 for 12,000 cubic yards
  - \$119,100 for 6,000 cubic yards

## Personnel Costs for Options 1 and 2

- 4 temporary workers at \$20 per hour is \$80 hour
  - Manual labor – cutting grass, opening pool, etc.
- \$80 hour per hour X 40 hours is \$3,200 week
  - \$3,200 week X 10 weeks = \$32,000 (Memorial Day to Labor Day)
- Manpower/overhead cost \$18,000
  - This will cover any additional costs for managing any parallel dredging operations



# Estimate for 12,000 cubic yard removal

Shoreline Construction & Excavating Ltd.  
7890 Rose Path  
Russells Point, OH 43348  
937-539-6468  
suzanne@shorelineohio.com



## ESTIMATE

ADDRESS  
Roaming Shores

ESTIMATE #  
DATE 02/06/2019

ACTIVITY	AMOUNT
Mobilization/Demobilization Mobilization/demobilization to/from Lake Roaming Rock.	10,200.00
Dredging Dredging of 12,000 cubic yards of material. This material will be dredged from the lake bottom, transported to the shoreline, loaded on trucks and trucked to the Roaming Shore's disposal site.	228,000.00
<hr/>	
The Village of Roaming Shores will complete and submit the appropriate permits to Ohio Department of Natural Resources, with assistance from the Shoreline.	<b>TOTAL \$238,200.00</b>

Accepted By

Accepted Date

If you wish to accept this estimate as written above- please sign, date and return to Shoreline. Please note that by signing this estimate, you are fully accepting the Terms & Conditions (attached once contract is close to being signed). A project will not be placed on our waiting list until a signed contract is returned to Shoreline (suzanne@shorelineohio.com).

# Shoreline Construction and Excavating

<https://www.shorelineohio.com/home.html>

937-539-6468



# Funding

- Assessment for each household
  - Assessments for different activities ie., differentiate passes - \$50 for a boat but pay \$50 for pool pass or even \$25 – get creative
- Philanthropists – We are a 501C not for profit
- Loan/Line of Credit
- Past Dues to be collected
- Water Fines

\*Survey results would help determine if people are willing to pay to supplement the dredging project

# Assessments (see comparison next slide)

## Assessment fee per “household”

### Purchase Equipment + personnel

Year One is ~\$150,000

\$150,000/1,150 assessments is \$130 per assessment

Subsequent Years are ~\$50,000

\$50,000/1,150 is \$43 per assessment

### Lease Equipment + personnel

\$115,000 all years

\$115,000/1,150 assessments is \$100 per assessment

### Outside Company

\$238,200 for 12,000 cubic yards

\$238,200/1,150 assessments is \$207 per assessment

\$119,100 for 6,000 cubic yards

\$119,100/1,150 assessments is \$104 per assessment

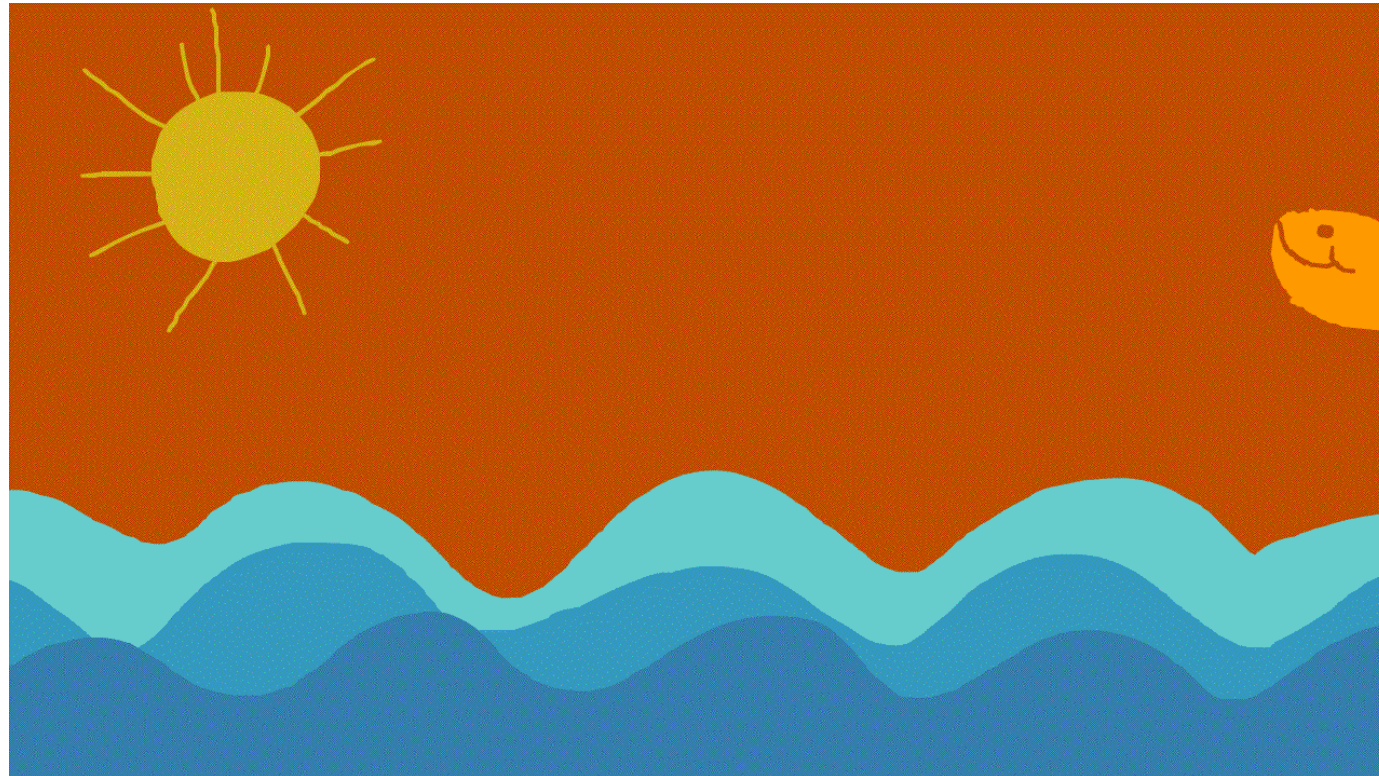
# Assessment Fee Schedule

	<b>Purchase</b>	<b>Lease</b>	<b>Outside Firm</b>
Year 1	\$130	\$100	\$207 for 12,000 cubic yards \$104 for 6,000 cubic yards
Year 2	\$43	\$100	\$207 \$104
Year 3	\$43	\$100	\$207 \$104
Year 4	\$43	\$100	\$207 \$104
Year 5	\$43	\$100	\$207 \$104
5 Year Total	\$302	\$500	\$2,565 \$520

## Resources

- <https://www.boats-and-harbors.com/classifieds/view.aspx>
- <https://streamside.us/>
- <https://www.commercialtrucktrader.com/listing/1977-Ford-L8000-5005913948>
- <https://www.shorelineohio.com/>
- [https://en.wikipedia.org/wiki/Grand\\_River\\_\(Ohio\)](https://en.wikipedia.org/wiki/Grand_River_(Ohio))
- <https://businesssearch.sos.state.oh.us/#busDialog>
- <http://ohiolakelife.lakefrontliving.com/common-fees-ohio-lakefront-communities/>
- Dan Mullins

# Questions



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