

# Micro Dredging with the 3” Piranha

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# PER

- Preliminary Engineering Report:
  - Identify the area to be dredged
  - Identify the properties of the dredged materials (spoils) ie. Sand, Muck, Clay, or Contaminated
  - Identify method (Hydraulic or Mechanical)
  - Identify the location for putting spoils

# Areas Impacted

- Outline the area to be dredged
- Access to the area (pathway or temporary road)
- Look at the entire watershed
- Does your system need additional safeguards to slowdown or prevent future spoils entering the pond or lake (sediment trap or bioswale)
- Understand sediment load (will it change)

# Properties

- How deep is the material?
- What is the material?
- Is it contaminated?
- Do I need to let it dry out a little before moving?
- Is it Sand, Clay, or Muck?

# Method

- Mechanical – removing using machinery (excavator) (90% material, 10% water)
- Hydraulic – Using a slurry to move the material (90% water, 10% material)
  - Must have water

# Identify where the material goes

- Dewatering bag
- Dewatering area – remove later
- Building up lost soils (Beach Restoration)
- Dewatering Containers
  - Ship Off site, is the ultimate goal

# 3" Piranha Dredge



# Geist Sailing Club, Hobie Beach





# Uses

- Boat Dock
- Culvert
- Small Cove
- Fountain Install Areas
- Pump Cleanout – Irrigation Systems GC
- Swimming Areas

# Bacteria / Enzyme Treatments

- A 6.5 acre lake was identified, in Wisconsin, with frequent algae blooms and occasional fish kills.
- Aeration, Algae Treatments were not enough
- B/E Treatments were put in place.
- The Muck was reduced and the internal nutrient load was reduced, allowing the treatments to work.

# B/E

- Probiotic that focuses on degrading muck
- Reduces available nutrient load (food)
- Reduces odors
- Aids in water quality and clarity
- Works best when temperatures are 60- 100 degrees Fahrenheit
- Reduces up to 2” muck per month
- Great for beaches or swimming areas

# Thank you

- Questions?
- Contact information
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