



Making It Better, Together.

Newton Lake Water Quality Project

Public Meeting

August 8, 2018

Collingswood Community Center

Agenda

- **Introductions and Welcome**- Freeholder Jeffrey Nash
- **Project Overview**- Andy Kricun, Director, Camden County Utilities Authority
- **Project Partners Review**- Dominic Vesper, Deputy County Administrator
- **Project Engineering Report**- Frank Brown and Josh Castillo, FX Browne
 - Project Design and Details
 - Project Site Map
 - Project Timeline
- **Outfall Repair and Bank Stabilization**- Andy Kricun
- **Park Rehabilitation**- Maggie McCann Johns, Director Parks Department
 - Recreation Amenities and Improvements
 - Maintenance and Long-term Plan for Riparian Zone
- **Public Q&A**
- **Next Steps**



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Newton Lake Water Quality Project

- Newton Lake is eutrophic
- Problems
 - Algal blooms and excessive aquatic plant growth
 - Reduction of recreational uses: fishing and boating
 - Stressed fish community
 - Poor aesthetics
- Caused by:
 - Siltation of the lake
 - High levels of nutrients such as nitrogen and phosphorus that enter the lake or are present in the lake.
- Restoration project will consist of lake dredging, shoreline stabilization, and streambank stabilization
- Restoration Project will significantly reduce the siltation and nutrient enrichment of the lake

Dredging Benefits

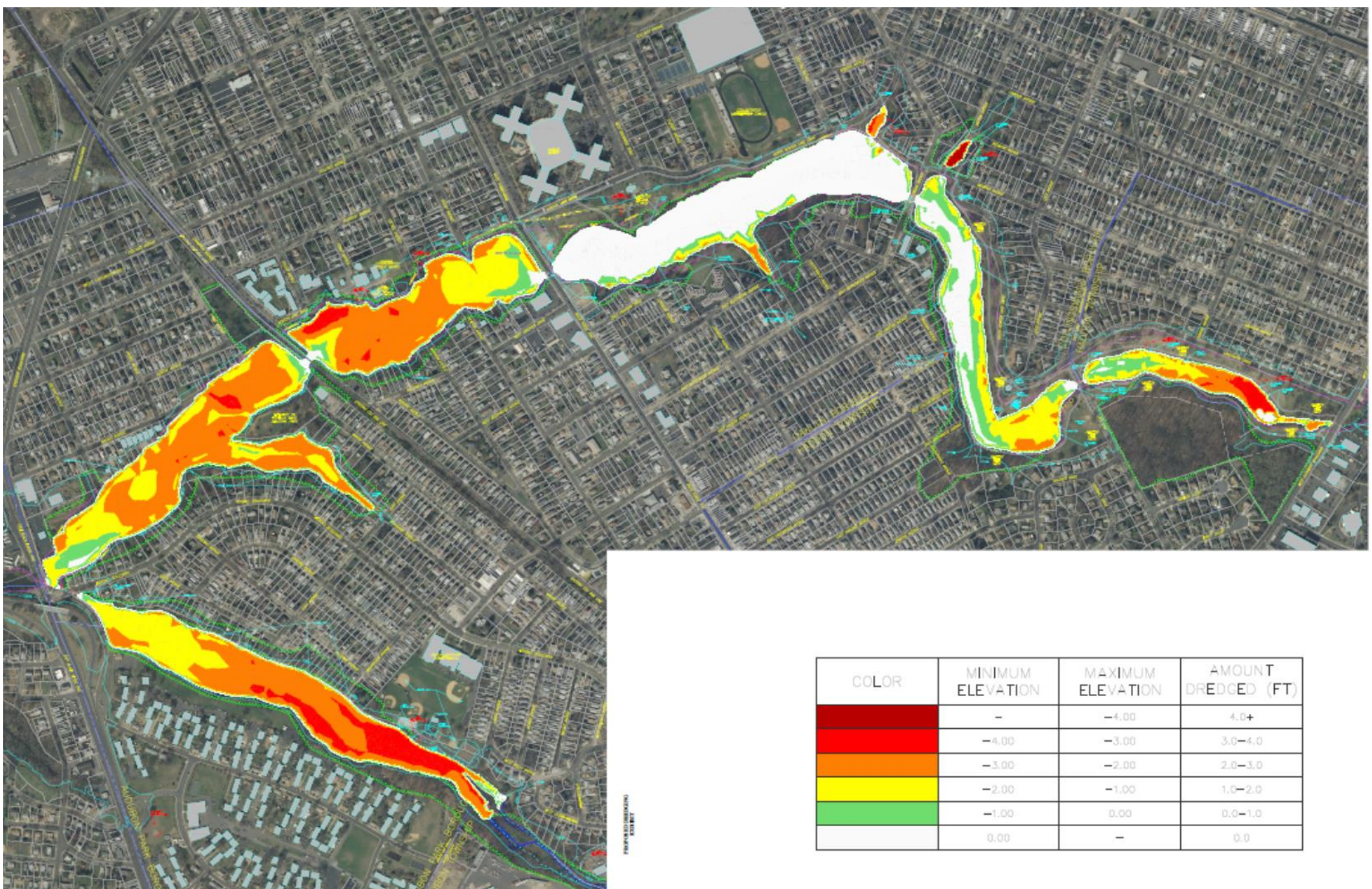
- Remove nutrient-laden sediments from the lake. Nutrients in sediments cause algae and aquatic plant growth.
- Make the lake deeper, resulting in less shallow habitat for aquatic plants to grow. Deepening the lake will reduce the excessive growth of aquatic plants.
- Increase the water depth and volume of the lake, resulting in a more ecologically sustainable healthier lake.
- Create a more balanced aquatic plant population which will provide valuable fish habitat.
- Enhance the aesthetics and recreational values. The removal of shallow and weed infested areas will enhance boating and fishing in the lake.
- Increased property values for homes around the lake.

Sample F. X. Browne, Inc. Dredging Projects

- Shipshewana Lake, Indiana: 550,000 cubic yards
- Lake Needwood, Maryland: 100,000 cubic yards
- Strawbridge Lake, Moorestown, NJ: 35,000 cubic yards
- Lower Sylvan Lake, Burlington Township, NJ: 46,700 cubic yards
- Cedar Brook Lake, Union County, NJ: 5,000 cubic yards
 - Shoreline stabilization
 - Public access areas
 - Lake aeration

Newton Lake Water Quality Project

- Sediment Removal
 - Newton Lake: 172,000 cubic yards (hydraulic dredging)
 - Peters Creek: 80,000 cubic yards (hydraulic dredging)
 - Nichols Pond: 2500 cubic yards (mechanical dredging)
 - Pond #2: 2500 cubic yards (mechanical dredging)
 - Total: 257,000 cubic yards
- Sediment Dewatering: 2 Sites
- Sediment Disposal: Landfill or other approved site

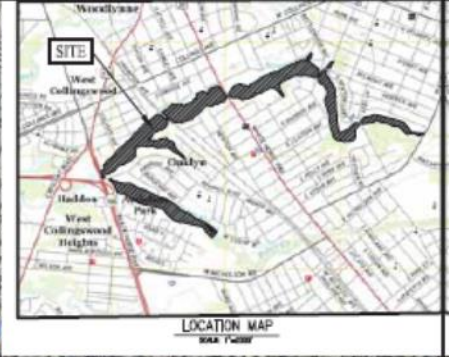


COLOR	MINIMUM ELEVATION	MAXIMUM ELEVATION	AMOUNT DREDGED (FT)
Dark Red	-	-4.00	4.0+
Red	-4.00	-3.00	3.0-4.0
Orange	-3.00	-2.00	2.0-3.0
Yellow	-2.00	-1.00	1.0-2.0
Light Green	-1.00	0.00	0.0-1.0
White	0.00	-	0.0

TO CRESCENT BLVD &
KINSLEY LANDFILL
(OR OTHER NJDEP APPROVED
DISPOSAL FACILITY)

SEDIMENT DEWATERING
AREA #2
(NEWTON LAKE DR/WHITE HORSE
PIKE)

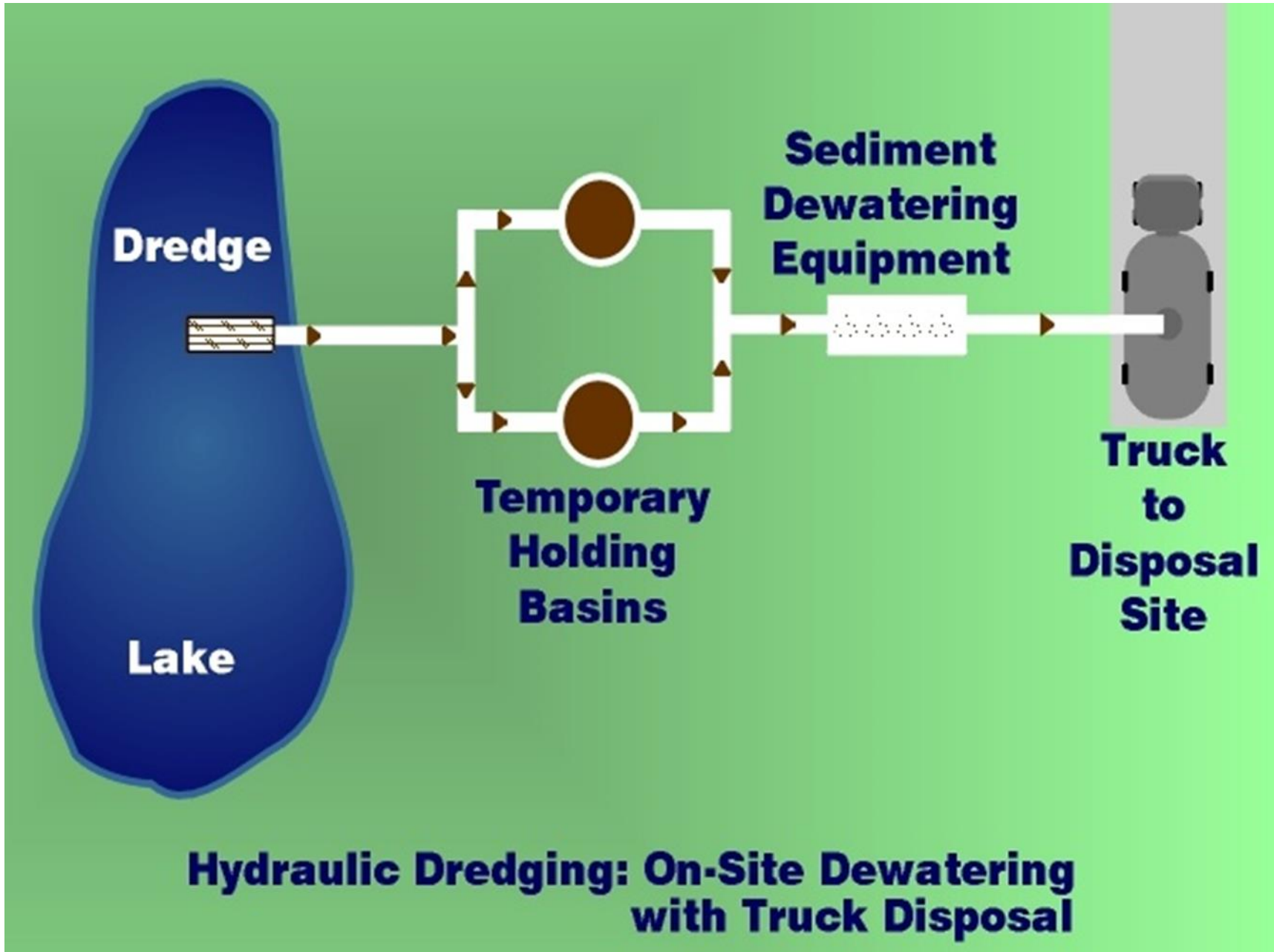
SEDIMENT DEWATERING
AREA #1
(OAKLYN BOROUGH PUBLIC WORKS
YARD/COUGAR FIELD)



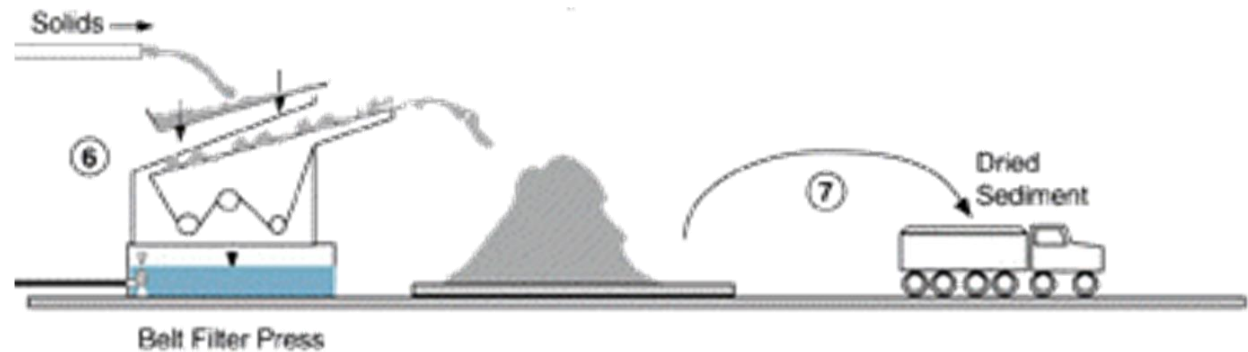
LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUFFER ZONE
- EXISTING MUNICIPAL BOUNDARY
- EXISTING LAKE CONTOUR
- ▨ PROPOSED MECHANICAL DEWATERING SITES
- ▨ BAIL ROUTE





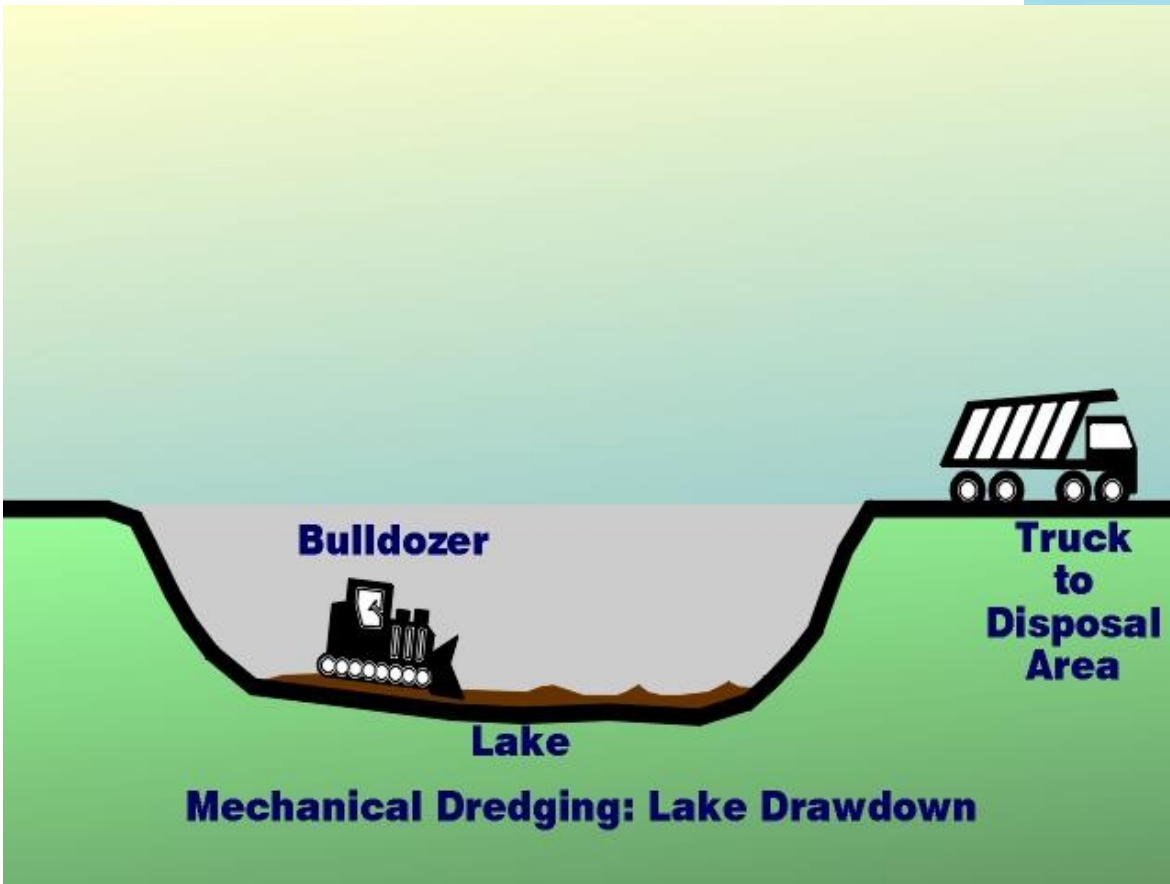
Mechanical Dewatering of Lake Sediment



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Lake Drawdown Dredging



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Dredging Project Timeline

- Goal: Start prior to October 15, 2018 and work until weather permits, or until dredging has been completed in each section started.
- Mobilization at Oaklyn Public Works Yard/Cougar Field – next season.
- Dredging can resume July 1, 2019 and should continue until project completion.
- Demobilization expected - early 2020.
- Dewatering sites/Access areas restoration - Spring 2020.



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Questions?



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Freeholder Jeffrey Nash

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