



MEDFORD LAKES COLONY

—
2024

LAKES
&
LAKES LEADERS

—

Our Lakes

21 Lakes (in five chains)

—
Headwaters:

Upper Aetna

Algonquin

Meeshaway

Mescha

Sioux

2 Canals

Natchez

Wagush Levee

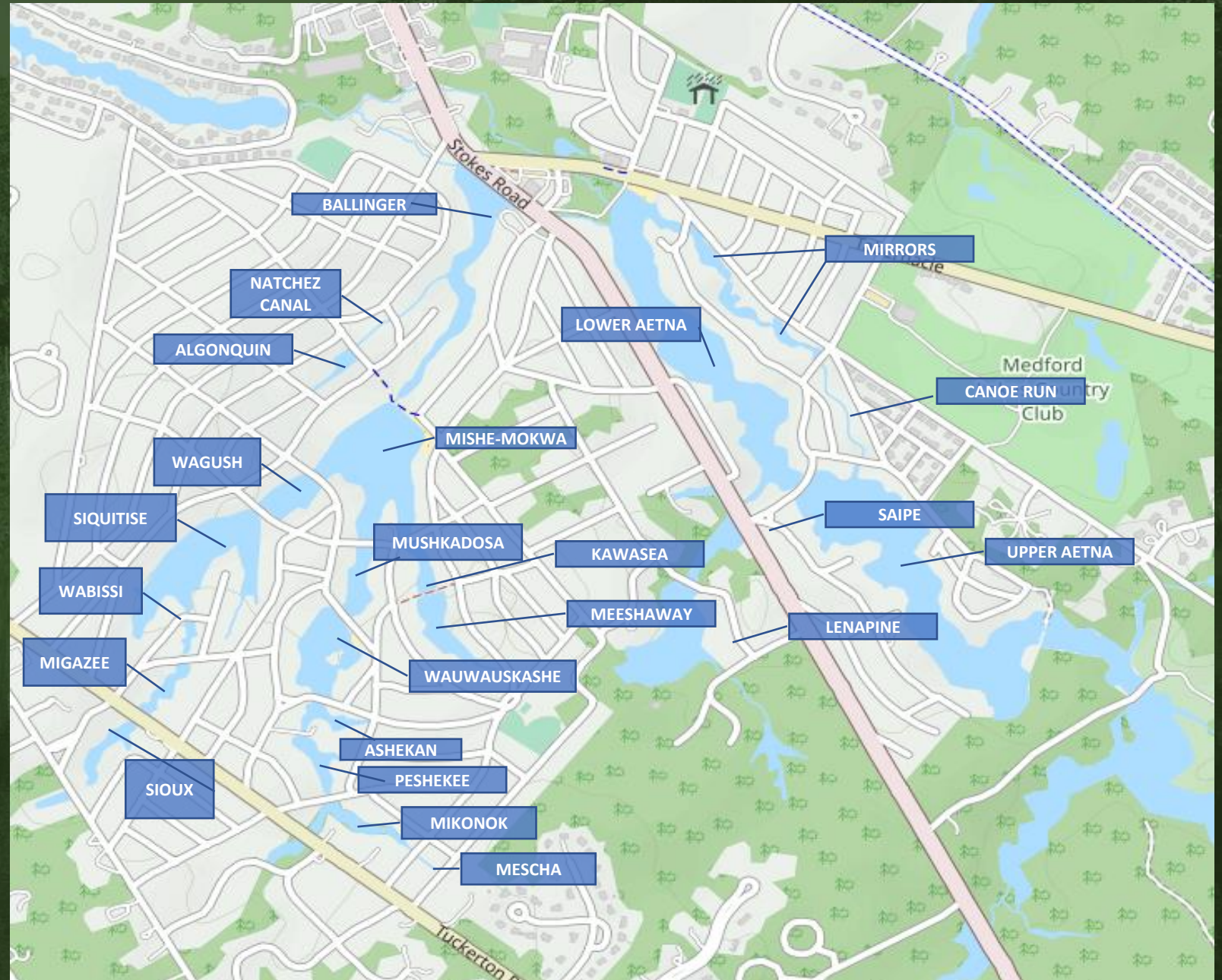
2 Lagoons

Ballinger

Siquitise

1 Run

Canoe Run
aka Mirror Run



Primary Issues & Maintenance

**Lake water volumes
and water levels**

Weed Growth

Water Quality

Lake Cleaning

Aquatic Life

**Compliance Programs
(NJDEP and Pinelands)**





LAKES
MAINTENANCE
2024

“Lakes Maintenance”

- **Subject to Annual Budgeting Process**
- **Budgets are under authority of VP Property**
- **Four Specific Line Items**
 - Geese Control (\$3,000)
 - Lakebed/Cove Cleaning (\$50,000)
 - Water Quality Testing (\$6,000)
 - Weed Treatments (\$17,500)
- **Shared Cost of Lake and Cove Cleaning between Colony and Lakefront Owners – 50/50 shared raking cost subject to \$750 limit for lakefront owner per Colony By-Laws**



2024
LAKE
CLEANING
STRATEGY
COST

- **2024 LAKE CLEANING BUDGET**

- **\$50,000**

- **BEACHES**
- **LAKES**
- **COVES & LAGOONS**
- **MANUAL & HYDRO-RAKING**

- **2024 LAKE CLEANING COSTS**

- ***Manual* Cost range from \$2000-\$3000 per day**
- ***Hydrorake* is \$2300 per day PLUS fee for mobilization**



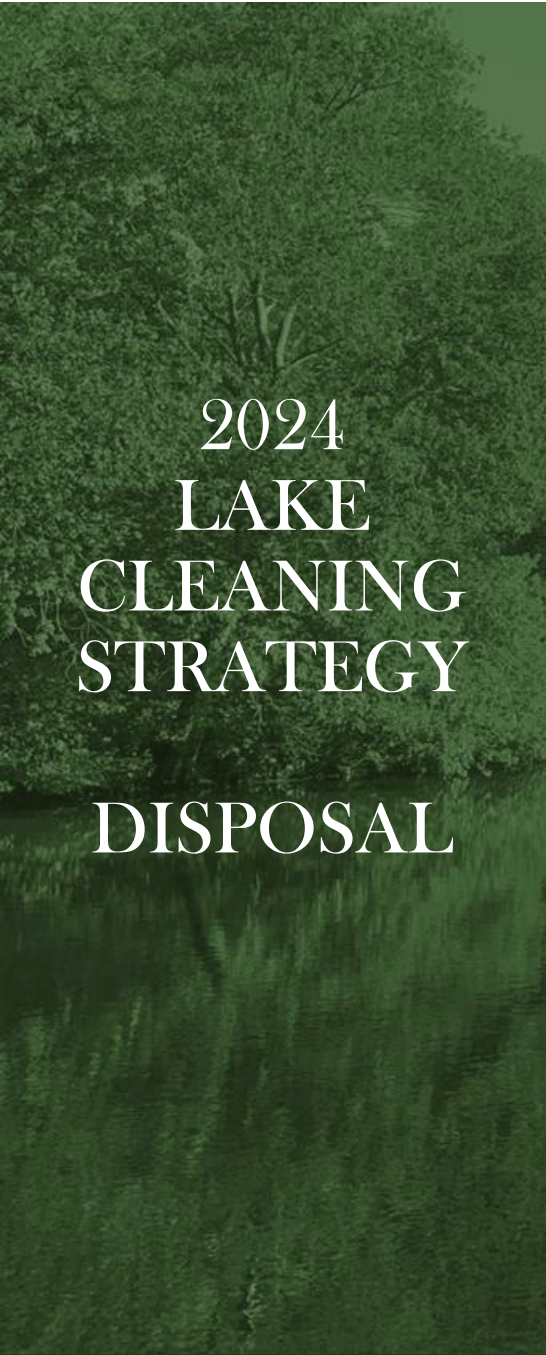
LAKES
MAINTENANCE
2024

- **RECAP OF MAINTENANCE ACTIVITY IN 2024**
- **MANUAL CLEANING**
 - CANOE RUN
 - BEACH ONE
 - BEACH THREE
 - BEACH FOUR
- **HYDRO-RAKING**
 - ASHSHEEKAN
 - MIGAZEE
 - WABISSI
 - UPPER MIRROR
 - MIDDLE MIRROR

2024
LAKE
CLEANING
STRATEGY
COST

• **ACTUAL COST OF LAKE CLEANINGS – 2024**

• CANOE RUN	\$ 3,000	2 days	35-40 yds
• BEACHES	\$. 2,950		
• LAKES			
• ASHSHEEKAN	\$. 8,912	3.5 days	75-90 yds
• MIGAZEE	\$. 8,912	3.5 days	75-90 yds
• WABISSI	\$. 7,080	3.5 days	75-90 yds
• UPPER MIRROR	\$. 9,015	4.0 days	100+ yds
• MIDDLE MIRROR	\$. 8,645	3.5 days	75-90 yds
• MOBILIZATION	\$. 695		
• TOTAL HYDRORAKING	\$42,564		
• <u>SUB-TOTAL</u>	<u>\$49,209</u>		
• Less Assessments	(16,629)		
• COST TO COLONY	\$32,580		



2024
LAKE
CLEANING
STRATEGY
DISPOSAL

- **2023-2024 DISPOSAL OF ORGANIC MATERIAL**
 - **COLONY OWNED PROPERTY**
 - **Nokomis Woods**
 - (Sioux Lake)
 - **Parcel at Narrangansett & Mudjeekeewis**
 - (Mikonok, Asheekan, Peshekee)
 - **Parcel at Paupukkeewis and Migazee**
 - (Migazee, Wabissi)
 - **Park on McKendimen**
 - (Canoe Run, Upper/Middle Mirror)



2025
LAKE
CLEANING
STRATEGY

2025 PLAN FOR LAKE CLEANINGS

- MANUAL RAKING

- BEACHES
- CANOE RUN LAGOON
- PESHEKEE (Cheyenne end of lake)

- HYDRORAKING

- LOWER MIRROR
- BALLINGER – LAGOON AND OAKS HALL COVE *
- SIQUITISE – LAGOON AND COVES *
- MEESHAWAY – COVE AREA
- KAWASEA
- MUSHKADOSA

* *Logistical issues have to be worked out*



LAKES RESTORATION

- **RECAP 2024 ACTIVITY IN LAKES RESTORATION**
 - **WAGUSH SPILLWAY AND DRAINAGE PIPE**
 - **DAM INSPECTIONS**
 - BALLINGER (FAIR – Minor Maintenance)
 - WAGUSH LEVEE (FAIR – Action TBD)
 - SIOUX (GOOD)
 - **WAUWAUSKASHE ADDITIONAL SPILLWAY (On-going)**
 - **BULKHEADS - NEW**
 - ASHSHEEKAN - \$10,180
 - MIDDLE MIRROR - \$6,576
 - **SPILLWAY REPAIRS**
 - WABISSI
 - ASHSHEEKAN



LAKES RESTORATION

- **RECAP 2024 ACTIVITY IN LAKES RESTORATION**
CURRENTLY IN PROGRESS

- **POWER CENTERS - \$33,000**

- ASHSHEEKAN/WAUWAUSKASHE
- MEESHAWAY/KAWASEA
- MIDDLE/LOWER MIRROR

- **AERATOR INSTALLATIONS**

- ASHSHEEKAN - \$8,496 – 3 Bubblers
- MIDDLE MIRROR - \$13,996 – 6 Bubblers
- LOWER MIRROR
- KAWASEA - \$8,496 – 3 Bubblers
- MUSHKADOSA – \$12,796 - 5 Bubblers



LAKES
RESTORATION

ACTIVE
LAKE
EQUIPMENT

- **ULTRASOUND ANTI ALGAE MACHINE**
 - SIOUX
 - MIKINOK
- **AERATORS**
 - SIOUX
 - MIGAZEE
 - WABISSI
 - WAGUSH
 - MIKONOK
 - PESHEKEE
 - MUSHKADOSA
 - WAGUSH LEVEE
 - BALLINGER
 - UPPER MIRROR

NEW FOR 2024
MIDDLE MIRROR
LOWER MIRROR
KAWASEA

Upgrade -- 3 to 5 bubblers



LAKES RESTORATION

2025 PLANNING

2025 LAKES RESTORATION PLANNING

- **WAGUSH TRAIL Drainage Pipe Replacement**
- **AERATORS**
 - **Add to Mikonok**
- **CIRCULATORS**
 - **Wagush Levee**
 - **Meeshaway**

LAKES RESTORATION

2025
PLANNING

BIO-PODS

BIO-PODS

- **Locations to be determined**
 - **Smaller Lakes**
 - **Contained area**
 - **Measurable results**
 - **Limited investment**
- **Requires Annual Maintenance**
- **Requires Annual Pod Replacements**

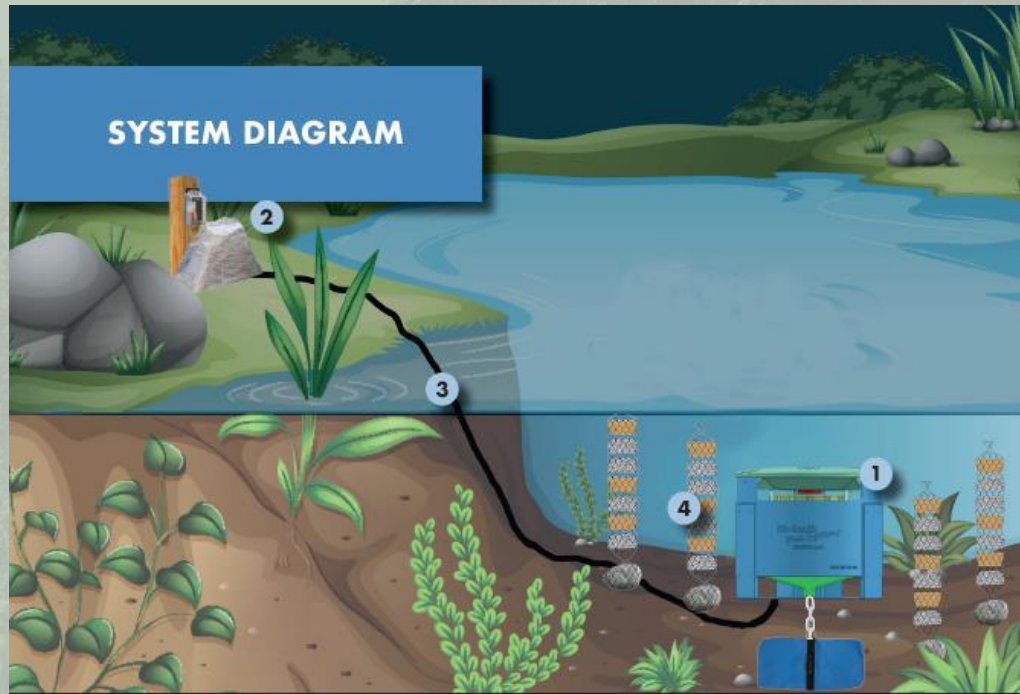
BIO-HEALTH POD SYSTEMS solve the problem of weeds and algae blooms by generating beneficial bacteria that aggressively consume and digest the muck and excessive nutrients in the water column 24/7. As the muck is reduced, the conditions that lead to weeds and algae are taken away leaving a healthy aquatic system for you to enjoy.

LAKES RESTORATION

2025
PLANNING

BIO-PODS

Pond System



- 1 BHP:** Find a location where the Bio-Health Pod can project to all areas of the pond. Ideal depth is around 4 to 5 feet.
- 2 Air Pump:** Locate the Air Pump near the 110 volt outlet that is closest to the BHP. Keep the pump at a high point so it will not get flooded in the event of a large storm. The pump is covered with the faux rock.
- 3 Weighted Air Hose:** When running the hose to the Bio-Health Pod it is important to keep it away from deeper water. Deep water will significantly reduce air flow and system performance resulting in increased wear and tear on the pump. The recommended depth is less than 5 ½ foot of water.
- 4 Nano Pods:** Place one Nano Pod every 25 feet around the edge of the pond. Distance from the edge is determined by depth. The ideal depth for the Nano Pods is between 2 ½ to 3 ½ feet. If the pond is shallow, Nano Pods can be shortened. In ponds that are wide, additional Nano Pods may be necessary for the center of the pond.

LAKES RESTORATION

2025
PLANNING

BIO-PODS

RIGERO



**BIO-HEALTH
POD SYSTEMS**

Plug & Go Kit



- Bio-Health Pod
- Faux Rock Pump Encloser
- Air Hose
- Grow Nest (in BHP)
- Hiblow Air Pump
- Pole Mount Kit or Anchor Mount Kit
- 10 Nano Pods
- 3 Bio-Blend Cartridges

Performance Objectives & Expectations

BIO HEALTH POD SYSTEMS deliver a continuous 24/7 treatment, providing aeration while generating beneficial bacteria that aggressively consume and digest organic muck and excessive nutrients in the water column. This reduces the effects that lead to algal blooms and invasive weed growth.


BIO HEALTH POD SYSTEMS are a natural and safe approach to solve your aquatic challenges without using harmful chemicals.

BIO HEALTH POD SYSTEMS are designed to draw down organic bottom muck and reduce nutrient loads in the water column to healthy levels. Systems are left in place to maintain and manage water quality moving forward. Therefore Bio-Health Pod Systems serve as both a short-term and a long-term solution improving the health of aquatic systems.

MEDFORD LAKES ORDINANCES

HELP
KEEP
OUR
LAKES
HEALTHY

- BE AWARE AND DO YOUR PART TO HELP ENFORCE OUR LOCAL ORDINANCES
- SITE COVERAGE LIMITATIONS
- YOU NEED A PERMIT TO PAVE OR REPAVE YOUR DRIVEWAY
- YOU NEED A PERMIT TO CUT DOWN A TREE OVER 4" TRUNK
- YOUR LANDSCAPER NEEDS A PERMIT TO SPREAD FERTILIZER
- IT IS A VIOLATION TO PUT LEAVES OR GRASS CLIPPINGS IN THE LAKE
- IT IS A BYLAW VIOLATION TO LEAVE YOUR FLOATS IN THE LAKE
- LIMIT USE OF ANY FERTILIZER (ORDINANCE)
- LIMIT THE SIZE OF YOUR LAWN
- USE PACHYSANDRA AND LOW HEDGES TO DETER GEESE
- CUT BACK YOUR TREES AND SHRUBS BY THE EDGE OF THE LAKE



gregory.lackey10@gmail.com