

Lake Auburn Outlet Beach Assessment

Presentation March 26, 2013



About the Outlet Pond & Park

- 3 acre park overshadowed by Route 4
- Limited 'beach' area
- Large parking area compared to the park





Route 4 Bridge Culvert

Route 4

Snack Shack / Bathhouse

Parking Lot

Beach

Outlet Pond

Outlet Dam

OAK HILL RD

FAIR ST

Potential Pollution Sources

- Route 4 stormwater ditch is main watershed
- Poor circulation and potentially phosphorus recycling from the sediments
- Proximal impervious surfaces
- Overflow from Lake Auburn sometimes carrying algal blooms / storm debris that stays
- Waterfowl inputs
- Beach erosion





Route 4



Outlet



Ditch

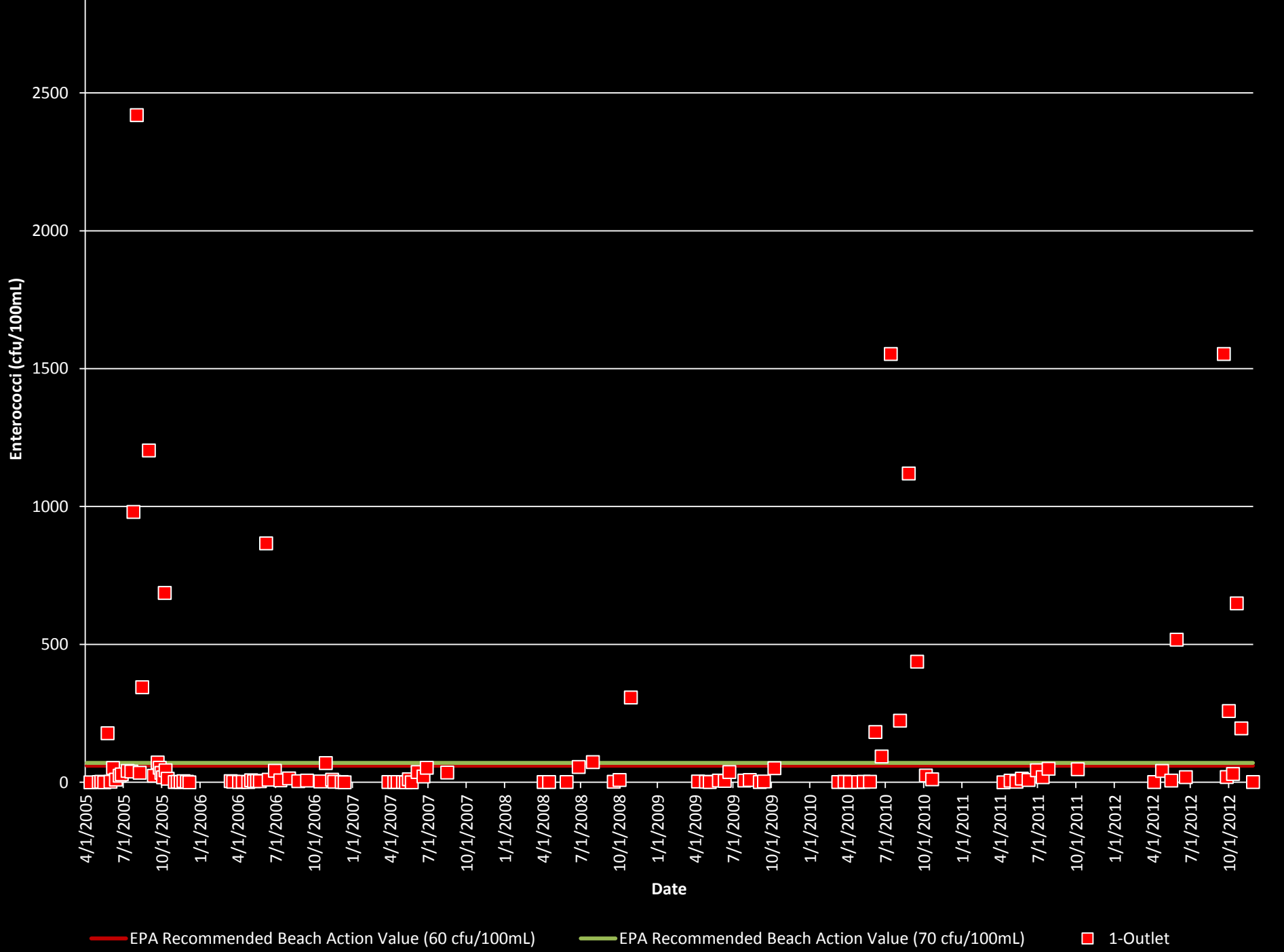


EPA Criteria for Beaches

Year	Enterococcus	E. Coli
1986 EPA Criteria	33	126
2012 EPA Criteria		
Geometric mean (50%)	30-35	100-126
Statistical Threshold value (no > 10%)	110-130	320-410
Beach Action Value (75%)	60-70	190-235

Note: the lower range is for 32 illnesses per 1000 beachgoers, the high range is for 36 illnesses per 1000





— EPA Recommended Beach Action Value (60 cfu/100mL)
 — EPA Recommended Beach Action Value (70 cfu/100mL)
 ■ 1-Outlet

Core Problems

- Poor circulation;
- Minimal fresh inflow from the watershed;
- Little groundwater inflow, and
- High volumes of stormwater
- Beach would potentially be closed partially each summer without major improvements
- Using the more conservative criteria for illnesses, 2005-2012 closures every year



Alternative Uses & Costs of the Park

1. Swimming Beach Improvements \$400,000 - \$600,000
 - Includes aeration
 - Shoreline erosion control and revetment
 - Stormwater wetlands treatment for Rte 4
 - Additional \$500,000 – \$1.5 million for dredging
 - Does not include renovations to park, maintenance, monitoring, lifeguards, etc.



Alternative Uses & Costs of the Park

2. Fishing and Bird Watching, \$65,000

- Regrading of the park and ditch, revegetation
- Reducing impervious area of parking
- Erosion control on shoreline
- Handicap accessible fishing platform
- No swimming signage
- Does not include upgrades or renovation of existing park structures or future maintenance costs



Alternative Uses & Costs of the Park

3. Decommissioning Beach and Park, No Action Alternative, \$30,000

- No swimming signage
- Removal of buildings
- Reduce parking lot
- Regrade and allow to naturalize
- Block public access to vehicles



Recommendations

- Recommend evaluating all local/nearby park/swimming resources for:
 - Improvements needed, if any
 - Long Term Water quality Outlook
 - Proximity to population
 - Carrying capacity
 - Longevity of the resource
 - Cost per person
- Compare to Lake Auburn Outlet to decide where funds would best be used

