



Realizing Community Goals For Water Quality

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Submission to Markham Council (amended)

December 14, 2021

Restoration Attainable But More Work Needed!

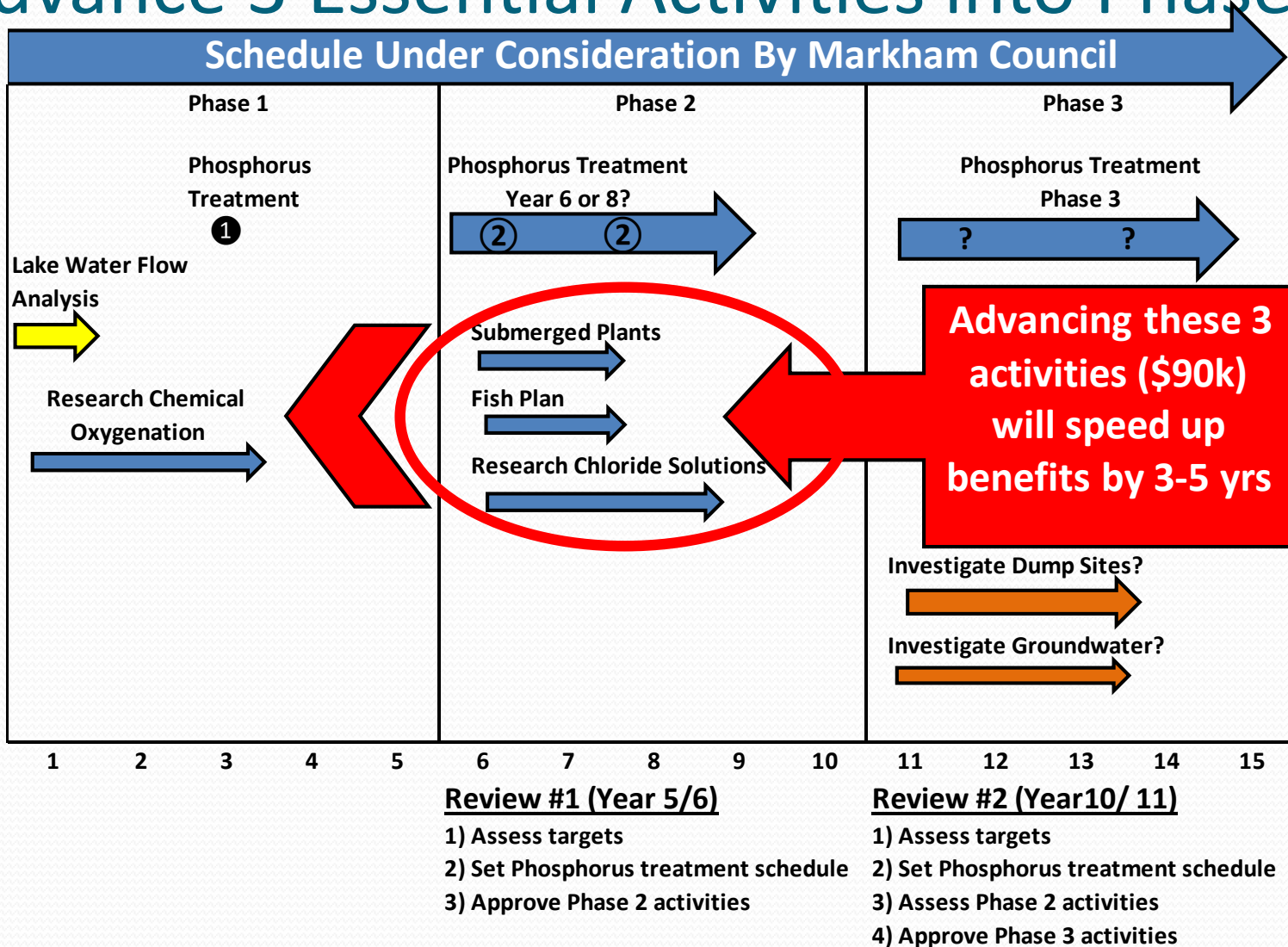
Proposed program an improvement but does not:

- Address Community Objectives
- Provide a Pathway Forward to Restoration

Our Request:

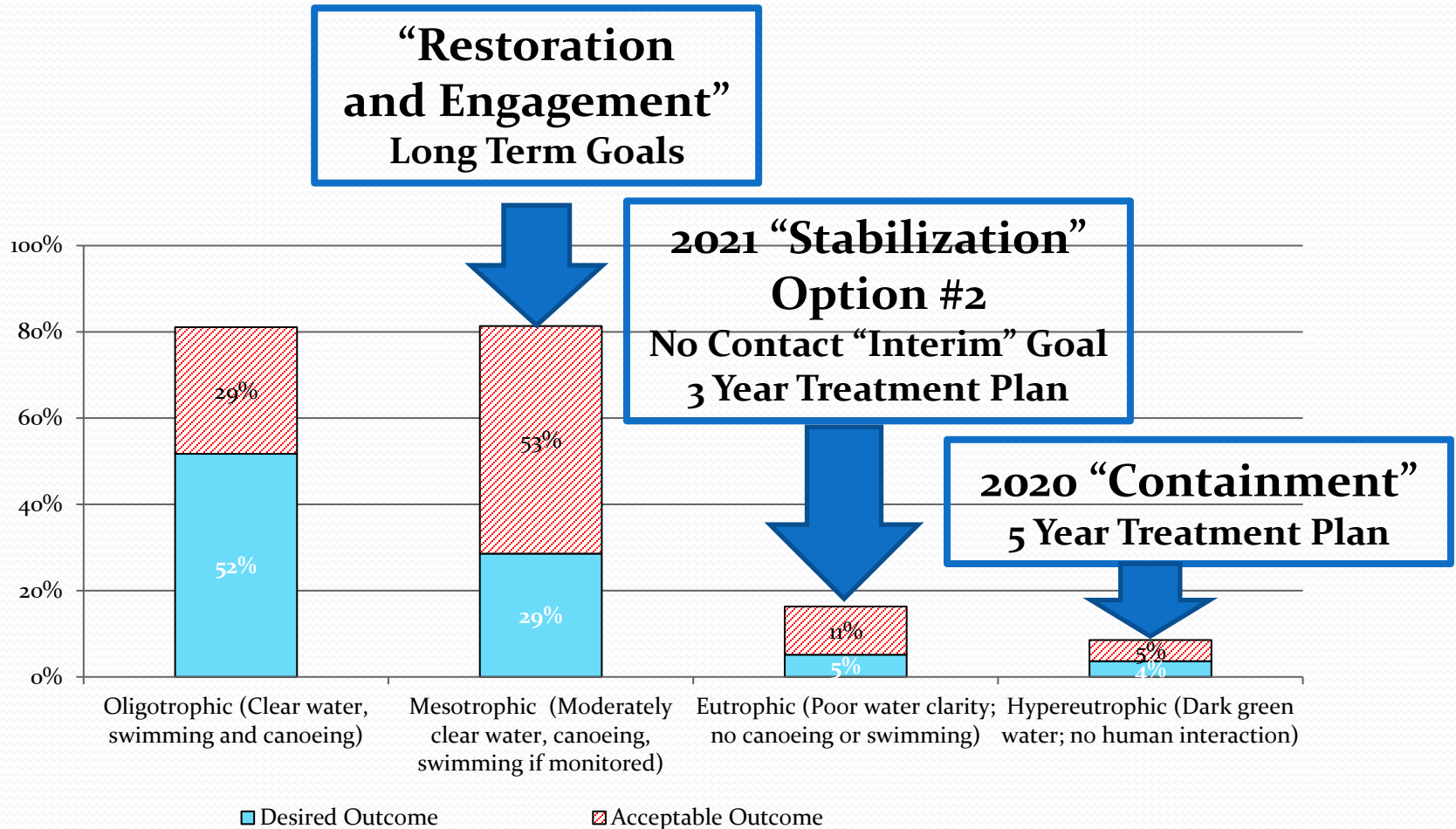
- 1) **Endorse** \$10k in 2022 for geese and fish management programs
- 2) **Endorse** staff program including staff discretion to advance three low- cost programs (\$90k) into Phase 1 (initial 5 years)
 - i) Research into chloride solutions
 - ii) planting submerged plants
 - iii) stocking with small fish
- 3) **Direct staff** to work with Friends of Swan Lake Park and report to Markham Subcommittee by June 2022 on an updated **Lake Water Flow Analysis** that will include a **high-level analysis** of:
 - a) Lake water quality benefits of reducing road salt inflows by reducing flows bypassing the ponds and rerouting flows from two OGS units
 - b) Flood control benefits of raising or regulating the level of the lake
 - c) Recommendations to include costs to be brought forward from Phase 3 for any further technical analysis (\$200k), implementation costs and to include an outline of jurisdictional/ ownership issues
- 4) **Direct staff** to outline possible actions to achieve and maintain goal of restoration of lake water quality

Advance 3 Essential Activities into Phase 1



Proposed Program Falls Short of Community Objectives

Over 82% of Respondents Call For Restoration



Restoration Challenging but Attainable

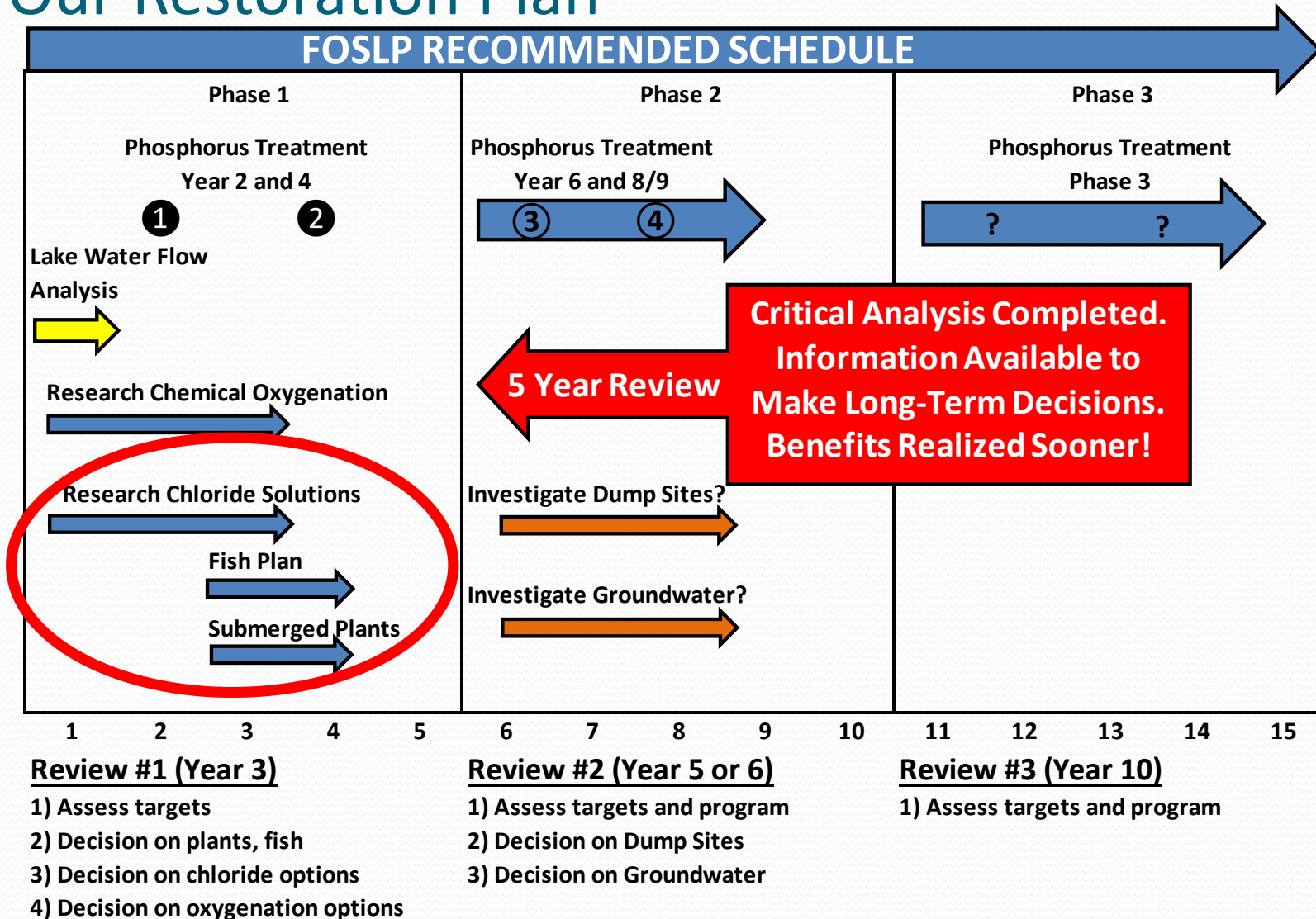
- Restoration “almost” attainable by chemical treatment only
 - *“If external sources reduced 50% (geese management) and internal sources neutralized then can attain “almost mesotrophic”, low phytoplankton biomass expected in 1st-2nd year AT”*
[Scenario analysis, Freshwater Research (pg. 15/735) [Emphasis added]
- Chemical treatment only tool for neutralizing existing phosphorus in the lake (“internal sources”)

Our Restoration Plan:

- 1) Treatment every 2 years (3-4 treatments then reduce)
- 2) Address oxygen and chloride issues

Ask staff to provide their plan!

Our Restoration Plan

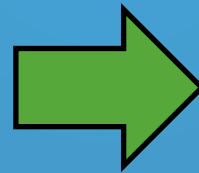




**Friends of
Swan Lake Park**

FOCUSED ON RESTORING SWAN LAKE AND SWAN LAKE PARK

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Thank You!