



Problem:

High Levels of Phosphorus in Salisbury Pond

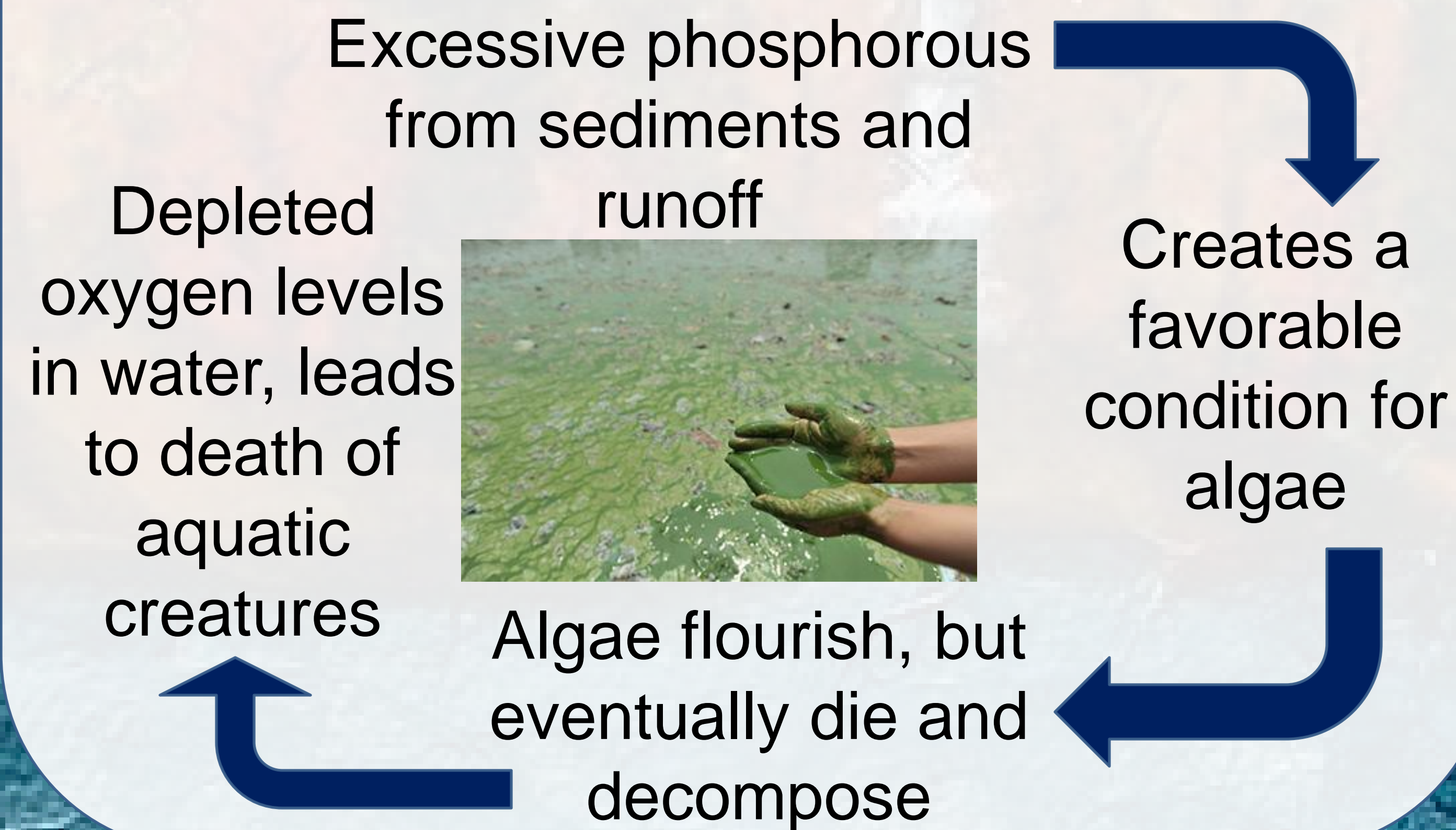
Environmental: High phosphorous level and toxic sediment accumulation

Technical: Combined sewer system exacerbates the environmental problems



Salisbury Pond

How Phosphorus Levels Relate to Eutrophication



Analysis of Solutions

		Costs	Benefits
	Aeration Fountain	-Uses electricity -Will not work in winter -Expensive in the long run	-Already part of Salisbury Pond Master Plan -Has been used many times before
	The SolarBee	-Depends on semi-reliable power source -Initial down payment is high	-Works in winter -Can be rented -Renewable energy

Our Approach to the Problem

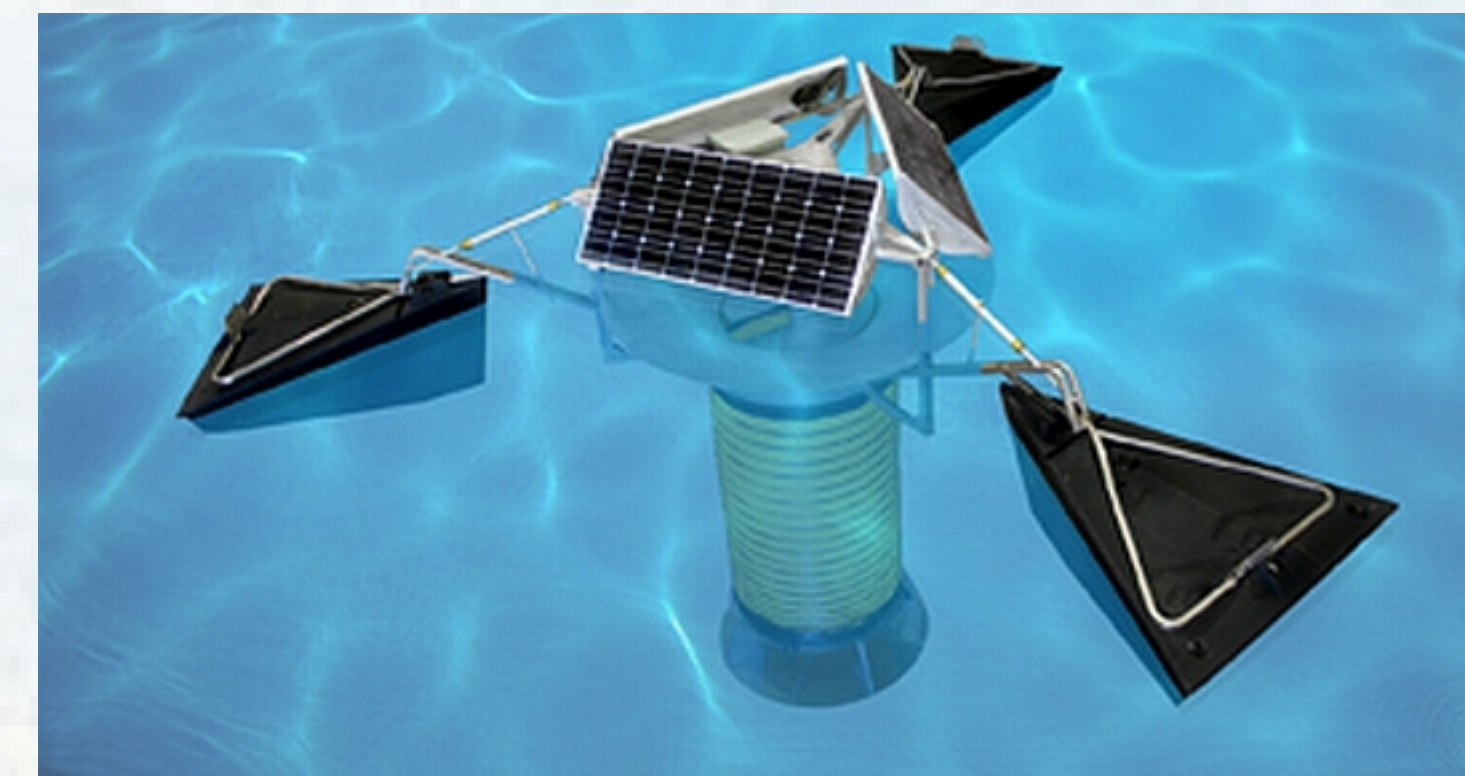
Step 1: Investigate causality between stormwater runoff and phosphorus overloading

Step 2: Investigate phosphorus pollution and possible mitigation strategies in Salisbury Pond

Step 3: Interview experts about runoff and potential mitigation strategies

Step 4: Evaluate solutions with a cost-benefit analysis and create an implementation plan

Recommended Solution



The SolarBee

- Takes water from deeper area and circulates it to the surface
- Reduces foul odors caused by algae
- Reduces overall algae levels in water

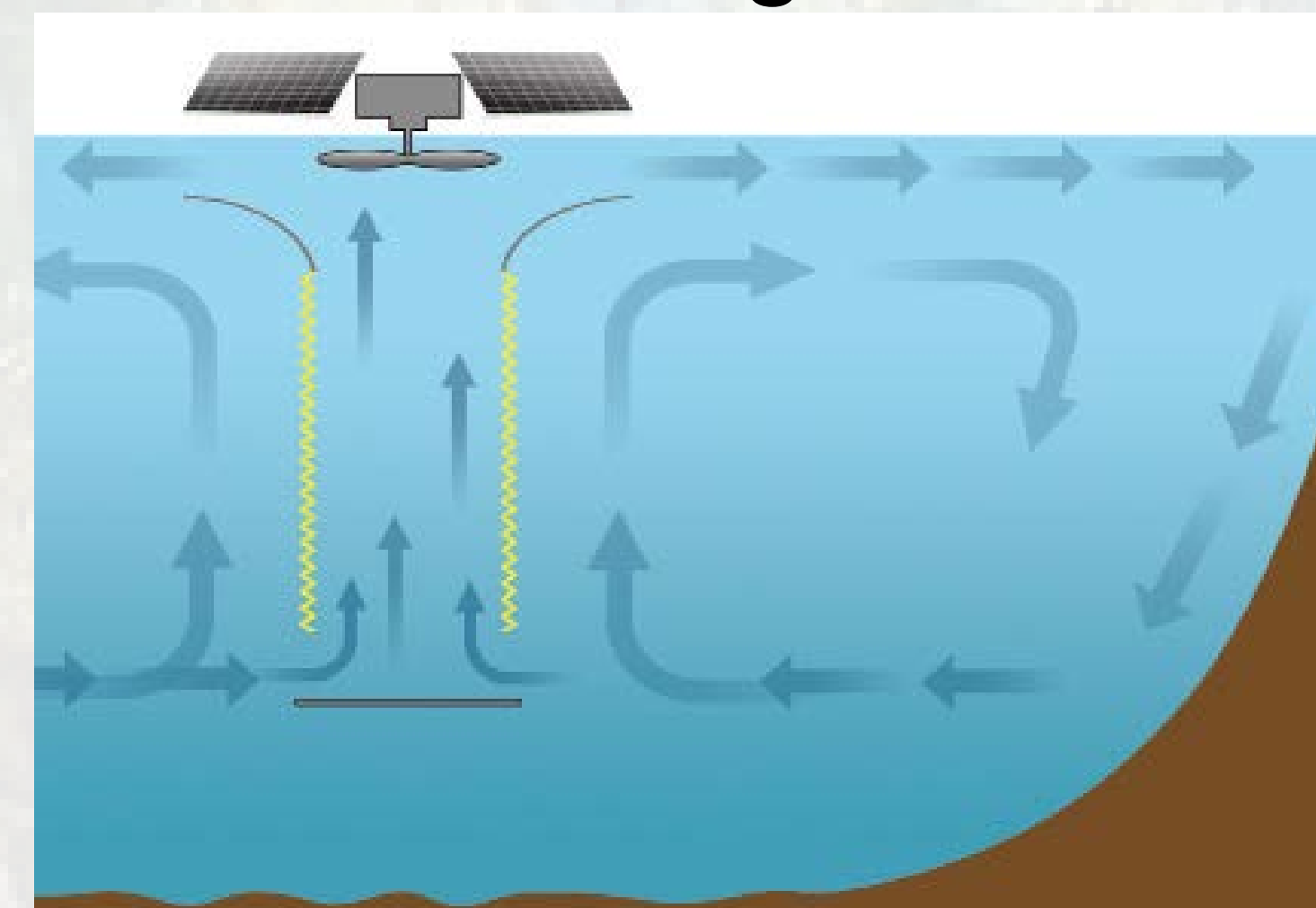
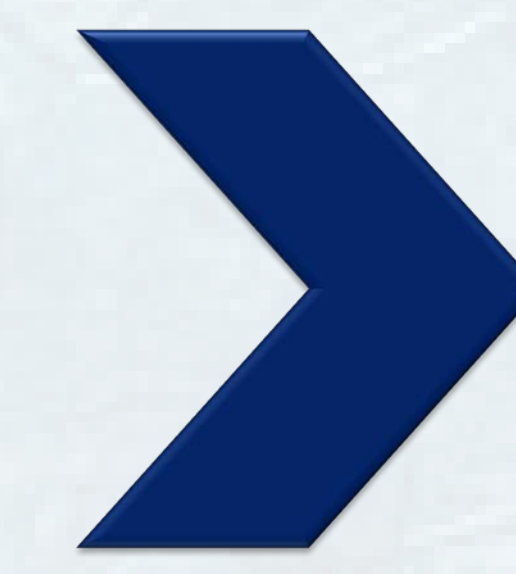


Diagram showing SolarBee circulating water

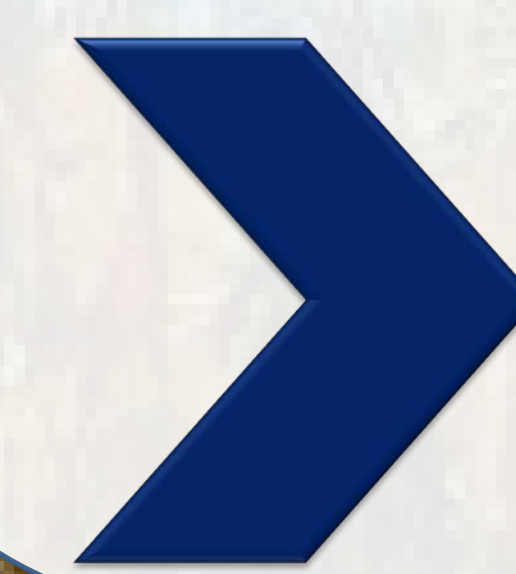
Implementation Plan



Immediate: Submit recommendation for SolarBee to Friends of Institute Park



1 year: Evaluate SolarBee for unanticipated environmental effects



5 years: Evaluate success of SolarBee with percent decrease in phosphorus

REFERENCES

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