

MEMORANDUM
Comfort Lake-Forest Lake Watershed District

To: Board of Managers
From: Mike Kinney
Subject: Draft Project Tier Structure

Date: October 5, 2018

Project Tiers

The Board discussed the 2019 budget and associated projects at several meetings this year and directed staff and EOR to prepare a proposed project prioritization framework. This framework is consistent with the District’s adaptive management philosophy – as new information becomes available, the direction of projects may shift so as to implement the most cost-effective BMPs.

While the Watershed Management Plan contains the District’s end goals, and serves as a general guide for project implementation, it does not necessarily need to be used as a prescriptive project list. Specific projects will be identified through diagnostic monitoring and feasibility, which is currently underway in multiple subwatershed areas around the District.

Tables 1 and 2 below provide a brief summary of the preliminary project tier framework. The framework is largely based on the quantifiable metric of phosphorus reduction. Other metrics such as additional pollutant reductions, habitat creation, and educational benefit should be taken into consideration on a project-by-project basis as well; though, some of these metrics are more difficult to quantify.

Table 1: Summary of preliminary project tiers

Categories	10-yr \$/lb	Typical BMPs
Tier One	<\$500	Alum Treatment, Source Reduction (Street Sweeping, Ag Nutrient Management, Conversion to Perennial Cover)
Tier Two	\$500-\$1,000	IESF, Infiltration, Wetland Restoration, Swales
Tier Three	>\$1,000	Raingardens, Buffers, Shoreline Restorations, Filtration

Table 2: Estimated total costs to achieve District-wide phosphorus reduction goals

Capital based on 10-yr \$/lb			
	Total*	80%	20%
P Reductions	2,809	2,247	562
@ \$1,500/lb	\$42,139,470	\$33,711,576	\$8,427,894
@ \$1,000/lb	\$28,092,980	\$22,474,384	\$5,618,596
@ \$500/lb	\$14,046,490	\$11,237,192	\$2,809,298
@ \$200/lb	\$5,618,596	\$4,494,877	\$1,123,719
@ \$100/lb	\$2,809,298	\$2,247,438	\$561,860

*Estimated total annual phosphorus load reduction needed to meet all District long-term (2040) goals is 2,809 pounds (sum of all lakes remaining loads)

Table 2 provides several scenarios of potential total costs to achieve District water quality goals. The Total column assumes that all projects are implemented on the same P-reduction cost-effectiveness level. The 80% and 20% columns allow creation of several different scenarios. For example, the District may aim to achieve 80% of its goals using high cost-efficiency projects (e.g. @\$500/lb or lower), then ultimately achieve the final 20% through remaining lower priority projects that aren’t quite as cost-effective (e.g. @\$1,000/lb or greater). Cells from the 80% and 20% columns can be added in order to evaluate various cost-efficiency combination scenarios.