



MEMORANDUM

Comfort Lake-Forest Lake Watershed District

Date: November 17th, 2025
To: CLFLWD Board of Managers
From: Mike Kinney, District Administrator
Subject: Forest Lake Alum Treatment SOW



District Wide

Background/Discussion

The Forest Lake Middle Basin Alum Treatment was completed in early October 2025. This was the second application of a split dose Alum Treatment to reduce internal phosphorus loading in Forest Lake.

Emmons & Ollivier Resources (EOR) was the engineer associated with this project. They are requesting approval of the attached revised scope of work for the Forest Lake Alum Treatment. They are requesting an additional \$6,000, bringing the total EOR scope of work to \$56,360. These additional funds were /will be used for implementation outreach, oversight, and treatment modeling.

The project itself is currently under budget, and as such, there are available grant funds to cover the engineering overage request – see expense tracking below.

Task	Total Expense	Total Budget	Match Spend	Grant Spend	Budget Balance
Project Development	\$14,538.21	\$17,000.00	\$14,538.21	\$0.00	\$2,461.79
Engineering	\$56,360.00	\$50,000.00	\$56,360.00	\$0.00	(\$6,360.00)
Education & Information	\$18,289.63	\$10,000.00	\$18,289.63	\$0.00	(\$8,289.63)
Alum Treatment	\$559,585.00	\$590,000.00	\$25,985.00	\$533,600.00	\$30,415.00
Grand Totals	\$648,772.84	\$667,000.00	\$115,172.84	\$533,600.00	\$18,227.16

Recommended Motion

Manager_____ moves to authorize the Board President, on advice of counsel, to approve and process the Emmons and Olivier Resources Forest Lake Alum Treatment SOW #3 and in an amount not to exceed \$6,000. Seconded by Manager_____.

Attached

EOR Forest Lake Alum Treatment SOW #3

technical memo - forest lake



Project Name	Forest Lake Alum Treatment	Date	11/18/2025
To / Contact info	Board of Managers		
Cc / Contact info	Mike Kinney, District Administrator Emily Heinz, District Project Coordinator		
From / Contact info	Anne Wilkinson, PhD, PE		
Regarding	Forest Lake Alum Treatment Additional Work Plan		

Request

EOR is requesting 15 additional hours of time that was used to handle project outreach. The District and EOR hosted a boat launch meeting during the alum treatment and a dinner workshop for the public to discuss Forest Lake limnology, alum treatments, and answer questions about the project. The additional hours were used for preparation and attendance at the events.

EOR is also requesting 20 additional hours to update the Forest Lake – lake response model while incorporating the new model format, updated runoff, and updated water quality. Since the Forest Lake model was developed there has been an updated version of the BATHTUB model which is more streamlined and allows for more precise load calculations. EOR will update the original Forest Lake BATHTUB model to the new format and incorporate the most recent water quality data and the newly reduced internal load.

Cost Estimate

Estimated costs for the requested activities is outlined in Table 1, below.

Activity	Estimate Hours	Estimated Cost
Outreach	15	\$3,200
Model Update	20	\$2,800
Total	35	\$6,000