To: Board of Managers                      Date: March 2, 2020
From: Mike Kinney
Subject: Monitoring Program

Background/Discussion
At the February 26th meeting, the Board directed staff to obtain 2020 monitoring service quotes for lakes that do not have volunteers through the Citizen Assisted Monitoring Program (CAMP). There are nine such lakes in the District’s 2020 monitoring plan. Staff has been in contact with Emmons & Olivier Resources (EOR) to obtain a quote. This request for services will include several new potential options. One of these will be to utilize a different commercial laboratory. Another option would be for District staff to participate in some of the sampling efforts. This would reduce some of the costs but more importantly, significantly increase both the field observations as well as interactions of residents and resource users by staff.

Recommended Action
Proposed Motion: Manager _____________ moves to authorize the Administrator, on advice of counsel, to enter into an agreement with _____________ for 2020 lake monitoring services and in an amount not to exceed $_________. Seconded by Manager _____________.

Attached: EOR Monitoring Quote
At the February 26, 2019 board meeting, the Board tasked CLFLWD staff with obtaining revised quotes for lake monitoring services. As such, the CLFLWD staff requested EOR to provide a cost estimate to complete the lake monitoring activities not covered by Citizen Assisted Monitoring Program (CAMP) volunteers in 2020. CAMP volunteers will collect surface water quality (total phosphorus, chlorophyll-$a$ and Secchi depth) from Forest West, Forest Middle, Forest East, Big Comfort, Little Comfort, Bone, Moody, Keewatin and Second lakes in 2020.

**Lake Monitoring**

The remaining lake monitoring for 2020 includes:

- Surface water quality (total phosphorus, chlorophyll-$a$ and Secchi depth) from 3 lakes (Shields, School and Birch)
- Bottom water phosphorus sample collection from 10 lakes
- Dissolved oxygen and temperature profiles and lake level monitoring in 12 lakes
- Oversight of each CAMP volunteer during one sampling event in the spring/early summer to observe sampling methods

**Estimated Hours and Cost**

448 hours = $44,272; Mileage and equipment = $8,139; Lab analyses = $3,672

Total lake monitoring cost = $56,083

Note that EOR will be on all CAMP volunteer monitored lakes on a regular basis to collect dissolved oxygen and temperature profiles and lake level readings. In the event that a CAMP volunteer becomes unable to collect surface water quality samples from a lake, EOR is available to collect these samples to maintain continuity in the District’s long-term lake water quality monitoring records. In addition, EOR is available to collect additional surface water quality samples and submit them to Instrumental Research laboratory if the District is unsatisfied with Met Council processing times of water quality samples.

**Total Cost**

The total cost for EOR to conduct the remaining 2020 lake monitoring is $56,083. If one District staff replaces one EOR staff to conduct monitoring on the 7 lakes that require a canoe to access (for a total of 142 hours), the total EOR cost would be reduced by $10,366.