

**MEMORANDUM**  
**Comfort Lake-Forest Lake Watershed District**

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**To:** Board of Managers **Date:** April 30, 2019  
**From:** Mike Kinney  
**Subject:** Agricultural Conservation Planning Framework (ACPF)

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**Background/Discussion**

As the District works to develop greater partnerships within the agricultural property owners in all areas of the CLFLWD, we are trying to focus these efforts so they align within the cost-benefit framework of some of the more recent and larger structural projects.

These efforts, however, have their challenges when comparing more traditional structural BMPs available to farmers to that of farm level field management changes. On some occasion, the farm level crop management changes might mitigate issues identified in our desktop subwatershed types of analysis. As such, the current efforts, which only provide a list of structural BMPs to be installed, do not provide the farmer nor the District with the necessary information needed to make a recommendation as to what tool is the most cost-effective to achieve the desired water quality outcome while also improving the bottom line to the farmer.

The Agricultural Conservation Planning Framework (ACPF) is a low-cost option for the District to better assess the soil and water conservation needs within the Bone and Little Comfort Lake Districts. If the Board wishes to expand this effort to the other lake districts, we can ask EOR to provide a quote for that work.

**Recommended Action**

Proposed Motion: Manager \_\_\_\_\_ moves to authorize the administrator, on advice of counsel, to enter into an agreement with EOR in accordance with the April 30, 2019 scope of work and in an amount not to exceed \$2,008. Seconded by Manager \_\_\_\_\_.

<b>Project Name</b>	3-004-C: Agricultural & Rural BMP Incentives/Cost-Share	<b>Date</b>	April 30, 2019
<b>To / Contact info</b>	CLFLWD Board of Managers		
<b>Cc / Contact info</b>	Mike Kinney, District Administrator		
<b>From / Contact info</b>	Mike Talbot, Trevor Rundhaug, Meghan Funke PhD PE		
<b>Regarding</b>	ACPF Analysis in Bone, Moody, and Little Comfort Lake Drainage Areas		

This memo details a proposed scope of work in 2019 to run the Agricultural Conservation Planning Framework (ACPF) GIS toolset in the “Bone Lake” HUC 12 watershed, one of the three HUC12 watersheds that intersect the District. As shown in green in Figure 1, the “Bone Lake” HUC12 watershed includes the Bone, Moody, and Little Comfort Lake drainage areas, and comprises a large proportion of the total agricultural land in the watershed.

The ACPF (<https://acpf4watersheds.org/>) is a set of GIS-based tools that were designed to leverage “high-resolution geo-spatial data to help local farming communities better address their soil and water conservation needs.” These tools use Minnesota’s statewide lidar dataset along with soils, land use, and other datasets to locate “optimal” sites for a suite of agricultural BMPs including identifying:

- Fields with the highest risk of runoff and erosion
- The best vegetation type to use in specific riparian areas
- Optimal locations for impoundments based on drainage area, including:
  - Constructed wetlands (“Nutrient Removal Wetlands”)
  - Water And Sediment Control Basins (“WASCOB”)
- In-field BMPs locations based on slope characteristics, including:
  - Controlled drainage
  - Grassed waterways
  - Contour buffer strips/filter strips

The outputs from the ACPF will be useful in one immediate and ongoing effort – namely the Wetland Bank Feasibility Study – as the wetland siting tool will help screen for optimal sites for constructed wetlands in an efficient and replicable manner. More broadly, the outputs will be helpful with the District’s efforts to prioritize and target agricultural BMP implementation in the previously identified pollutant loading hotspots (fields with high sediment and phosphorus loads) in the Bone and Little Comfort Lake Management Districts, and may provide additional insight into the most important hotspots to address.

### **Deliverables**

Maps and GIS data files of the ACPF outputs in the Bone, Moody, and Little Comfort drainage areas for internal District files.

### **Schedule**

May – June 2019

### **Estimated Hours and Cost**

20 hours = \$2,008

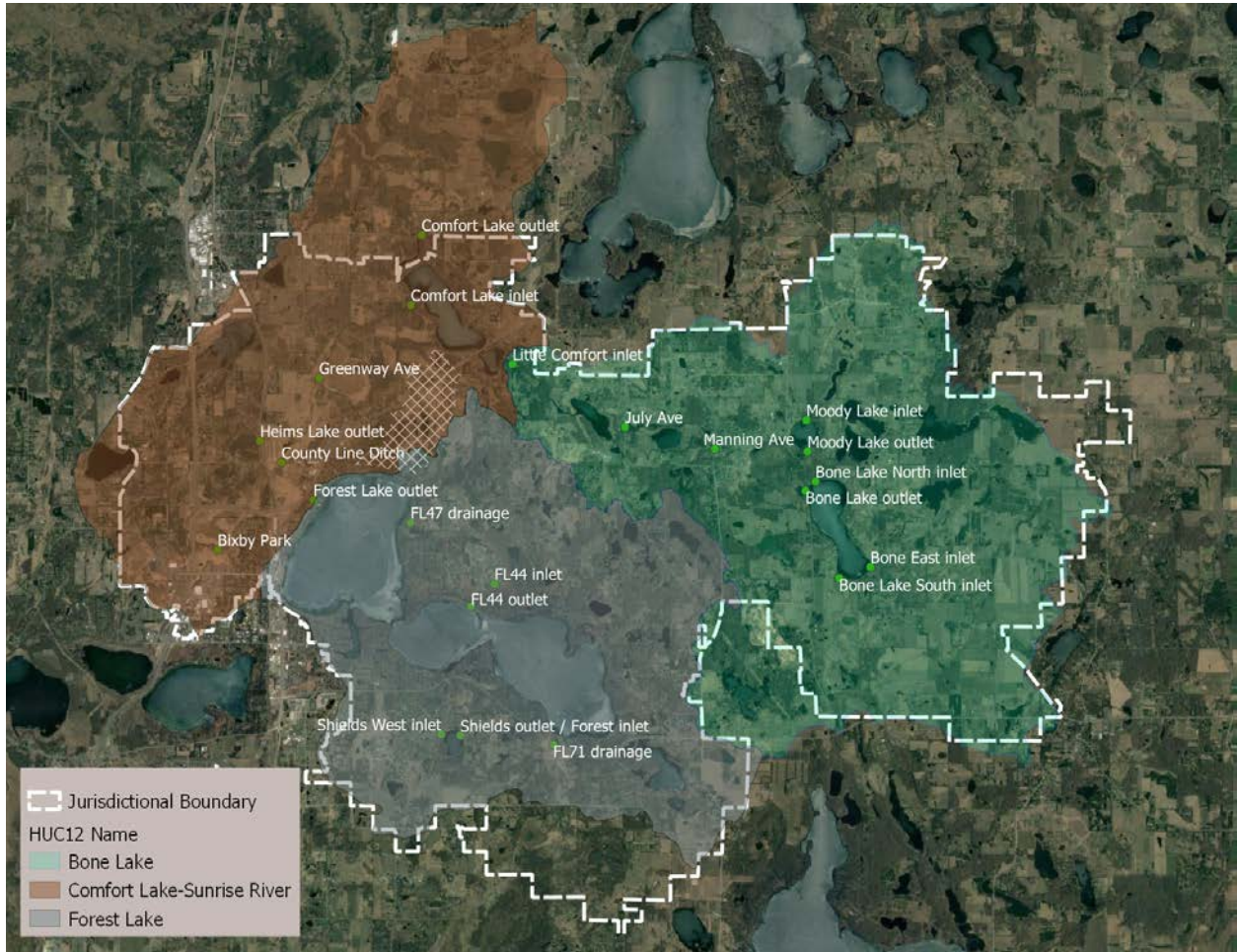


Figure 1. HUC12 watersheds that intersect the CLFLWD jurisdictional boundary