Milwaukee Zoning, Neighborhood, and Development Committee City Hall 200 E. Wells Street Room 205 Milwaukee, WI 53202 October 1st, 2016 700 W Rock Place Glendale, WI, 53209

Dear members of the Zoning, Neighborhood, and Development Committee,

Here are accurate and more in-depth answers to questions you asked when I testified last Tuesday about Estabrook Dam.

Regarding Recreation:

The Lincoln Park lake existed long before Estabrook Dam. More than half of all lakes in southern Wisconsin are controlled by dams. Historic records confirm that from the 1890s until the 1950s beaches and boat launches, as well as commercial recreational facilities thrived in the area. Milwaukee River was more popular than Lake Michigan due to better facilities, warmer swimming water and safer use. As pollution grew, concerns over safety and disease transmission caused recreation on the river to diminish starting in the late 1940s. Since then, most recreation has been limited to power boating, water skiing, paddling, ice skating cross-country skiing and simply enjoying the aesthetics of the river in Estabrook, Lincoln, Kletzsch Parks along the Milwaukee River Parkway. 74% of the water frontage on this lake is public land, mostly park land.

Removal of Estabrook Dam would cause depth to drop even lower than it has been since 2008, with the dam drawn down. Since the dam gates were opened, the water depth has been so low that swimming, rowing and powerboating are no longer possible. Paddle sports are limited but can be accomplished during times of high water. These higher water events occur fairly often now only because Milwaukee County Parks Department stopped removing debris from the dam. The built-up debris act as a dam, raising the water about 2 feet. When the debris is removed from the dam, much of the lake is only a few inches deep, shrinking the area covered by water substantially. According to health standards and water testing data, the water quality is again safe for swimming on many days but the depth is too shallow to swim. \$34 Million was spent to clean sediment for the purpose of making this area swimmable and fishable but that vision can only happen if the water is deeper. For deeper water, Milwaukee needs the dam. The PDF attachment **"Recreation at the Estabrook Dam Lake Prior to 2008"** includes photos, of recreation on Lincoln Park Lake.

Regarding Water quality attributed to dam removal:

The dam did not reduce water quality as has been claimed. Water depth since 2008, when the draw down began, has been low, providing nearly identical conditions that would exist if the dam were removed. Water quality has not improved in those 8 years. Since April of 1982, MMSD tested water quality twice each month, about the same time of day, from 8 locations, including 2 locations within the Estabrook impoundment. Comparing monitoring locations, using MMSD water quality data (temperature, dissolved oxygen, fecal coliform, and total lead), from all locations, on the same days,

there is no evidence of the impoundment negatively impacting water quality, during either during full pond as well as or after draw-down.

The attached PDF charts: "MKERiver-DisolvedOxygenData", "MKERiver-FecalColiformData", "MKERiver-RiverTempData", and "MKERiver-TotalLeadData" include columns arranged from upstream to downstream. Monitoring stations within the impoundment are shaded blue.

The attached file: **"Cty expert rpt water quality discussion"** provided by Riverkeeper, in the County's EIS shows less desirable indicators during the draw down than previous to the drawdown. The data was recorded from a site outside the impoundment, downstream of the dam and its usefulness for purpose of this analysis is dubious. However, MMSD water quality data from the Silver Spring bridge site, which is in the area of study, also shows no improvement in water quality in the period that the dam has remained open continuously.

Comparisons of test locations upstream and downstream indicates that water quality was not negatively impacted by the dam, especially in the factors that Riverkeeper measured, such as temperature, turbidity and Ph and dissolved oxygen. In the past, other improvements/changes, such as the implantation of the Clean Water Act in 1972 and deep tunnel gradually improved water quality according to the tests. If dam removal were going to affect water quality, as claimed, the water quality data during the 8 year drawdown of Estabrook Dam would also have produced gradual results, but it hasn't improved.

Regarding Fish

In 2005, prior to area environmental cleanups, the impounded area (upstream of Estabrook Dam and downstream of Kletzsch Park Dam) already had 32 species (more than North Avenue Dam prior to its removal). Since then, fish habitat in the Estabrook impoundment was improved by a massive multi-year PCB remediation project, removing toxic silt and adding habitat structure to the bottomland. The gates of Estabrook Dam have been open since 2008. If claims of more and healthier fish by dam opponents were true, one would expect that fish would flourish and move unimpeded into the impoundment. Strangely, no DNR fish surveys were made available since the drawdown but local fishermen claim that fishing has deteriorated severely since the dam was drawn down. Drawing down Estabrook dam resulted in very shallow depths and more temperature extremes during summer months, with negative effects on the fish population. An August 26th, 2016 Milwaukee Journal Sentinel article featured a photo from the Estabrook Impoundment and said U.S. Geological Survey scientists found an elevated number of cases of skin and liver tumors in fish. In short, the fish and fishing have not improved by lowering the water to similar levels that dam removal would provide.

Sincerely,

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Glen Goebel Director Milwaukee River Preservation Association