



COMMISSION FILE NO: 15-053-5 **DATE INTRODUCED:** May 4, 2015

INTRODUCED BY: Executive Director (Signature on File in the Office of the Commission)

REFERRED BY COMMISSION CHAIRPERSON TO: Policy, Finance, and Personnel Committee

RELATING TO: Commission Support for Removal of the Estabrook Dam

SUMMARY:

The Commission is requested to adopt a resolution supporting removal of the Estabrook Dam, because removal will reduce the risk of flood damage within the Milwaukee River Watershed. Adoption of this resolution is consistent with the District's goal of reducing flood risks to structures within its service area, will not result in any cost impacts to the District, and is expected to improve water quality, habitat, fish passage, and river aesthetics.

ATTACHMENTS: BACKGROUND KEY ISSUES RESOLUTION
FISCAL NOTE S/W/MBE OTHER

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COMMITTEE ACTION: _____ **DATE:** _____

COMMISSION ACTION: _____ **DATE:** _____

BACKGROUND

Commission Support for Removal of the Estabrook Dam

The Estabrook Dam (Dam) is located on the Milwaukee River in the cities of Glendale and Milwaukee, approximately 1,500 feet downstream of the Port Washington Road Bridge. Milwaukee County owns and operates the Dam. The Dam has two parts separated by an island. A gated spillway section connects the east bank to the island. An overflow weir section connects the island to the west bank. Upstream, a series of concrete tripods act as ice breakers. The structure is deteriorating and needs costly repairs.

In the early 1930's, about five feet of channel bottom was removed for over a mile upstream from the Dam's location, which left a normal stream flow not suitable for boating. The Dam was built in 1937 to reestablish an impoundment suitable for recreational use.

When the gates are closed, the Dam creates a 100-acre impoundment that stretches for over two miles upstream. One hundred sixty-three (163) residential properties have river frontage along this impoundment, which extends beyond Silver Spring Drive.

Within this two-mile reach upstream of the Dam, at least 53 structures are in the 100-year (1% probability event) floodplain when the Dam's gates are open. In the City of Milwaukee, south of Silver Spring Drive, three residential structures are in this floodplain. In the City of Glendale north of Silver Spring Drive, at least 50 residential structures are within this floodplain.

The Wisconsin Department of Natural Resources (WDNR) identified safety problems in 1995. WDNR ordered repairs to the Dam in 2008. In 2012, the Milwaukee County Circuit Court decided that the Dam was a public nuisance. This lawsuit is ongoing. (*Milwaukee Riverkeeper v. Milwaukee County*, Milwaukee County Case 2011-CV-8784)

Milwaukee County developed an Environmental Analysis (EA) to identify alternatives that would comply with both the WDNR order and the Circuit Court order. The Southeastern Wisconsin Regional Planning Commission documented the hydraulic analysis for the EA. The EA evaluated five alternatives:

1. Rehabilitate the Dam.
2. Rehabilitate the Dam and add fish passage.
3. Abandon and remove the Dam.
4. Abandon and remove the Dam, providing a rock ramp for fish passage and creating an impoundment.
5. Remove portions of the Dam and rehabilitate other portions as well as providing a rock ramp for fish passage and creating an impoundment.

BACKGROUND (cont'd)

Commission Support for Removal of the Estabrook Dam

The hydraulic analysis shows that Alternative 3, abandonment and removal, provides the most flood risk relief of all the alternatives. Alternative 3 would completely remove the Dam, including both the gated control structure and the fixed crest spillway, and create free flow conditions in the Milwaukee River. During a 100-year flood (1% probability event), Dam removal would reduce water surface elevations by approximately six inches for the City of Milwaukee structures and by three inches for the City of Glendale structures. These reductions in flood elevations do not remove these structures from the floodplain, but do significantly reduce the risk of flood-related property damage.

Within the Milwaukee River watershed, the District has invested approximately \$130 million removing 2,081 structures from the 100-year (1% probability event) floodplain. Three hundred ninety-one (391) structures remain in this floodplain. Although Dam removal will not remove these structures from the floodplain, any reductions in water surface elevations will support the District's goal of removing all structures from the floodplain, as established by the District's *2035 Vision*. In addition to reducing the risk of flood damage, removal of the Dam is expected to improve water quality, habitat, fish passage, and river aesthetics and reduce sediment accumulation. Also, Dam removal is the least costly of the alternatives identified by Milwaukee County to remedy the public nuisance and has no annual operation and maintenance costs for the County.

RESOLUTION

Commission Support for Removal of the Estabrook Dam

WHEREAS, removal of the Estabrook Dam will reduce flood elevations in the Milwaukee River upstream of the Estabrook Dam; and

WHEREAS, a reduction of flood elevations supports the District's goal of removing structures from the 100-year (1% probability event) floodplain; and

WHEREAS, removal of the Estabrook Dam will improve water quality, habitat, fish passage, and river aesthetics and reduce sediment accumulation.

NOW, THEREFORE, BE IT RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Commission supports the removal of the Estabrook Dam as soon as practicable.