Item 9

COMMISSION FILE NO: 18-013-1 **DATE INTRODUCED:** January 8, 2018

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: Authorization to Execute an Intergovernmental Cooperation Agreement between the Southeastern Wisconsin Regional Planning Commission and the Milwaukee Metropolitan Sewerage District for a Regional Chloride Impact Study

SUMMARY:

The Commission is requested to authorize and to direct the Executive Director to execute a four-year intergovernmental cooperation agreement with the Southeastern Wisconsin Regional Planning Commission (SEWRPC) for a regional chloride impact study, Contract P-2737, in an amount not to exceed $170,000. The agreement would become effective on February 1, 2018, and expire on December 31, 2021.

This is a noncompetitive procurement of government services from SEWRPC, the regional planning authority for Southeastern Wisconsin. SEWRPC has extensive experience working with MMSD on the Water Quality Initiative, the Regional Water Quality Management Plan Update, maintenance of computer models, data curation, and various comprehensive watershed restoration plans.

MMSD is a minority funder of this larger project. Other funding sources include SEWRPC ($573,000), the Wisconsin Department of Transportation ($573,000), and the Fund for Lake Michigan ($127,000). Additional funding sources will be solicited for $276,000. If unsuccessful in raising the additional funds, SEWRPC will cover those costs. The total project cost for this four-year study is $1.719 million.

This study will provide useful information to enable entities contributing chloride to the environment to better manage the processes making that contribution. Better management of sources of chloride to streams, rivers, inland lakes, and groundwater will ultimately improve the water quality of Lake Michigan tributary streams and rivers, and of the Lake itself, which is a source of water supply for many communities within the basin.

ATTACHMENTS: **BACKGROUND** ☒ **KEY ISSUES** ☐ **RESOLUTION** ☒

FISCAL NOTE ☒ **S/W/MBE** ☐ **OTHER** ☐ ____

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BACKGROUND

Authorization to Execute an Intergovernmental Cooperation Agreement between the Southeastern Wisconsin Regional Planning Commission and the Milwaukee Metropolitan Sewerage District for a Regional Chloride Impact Study

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Several chloride or specific conductance monitoring studies have been undertaken in portions of the seven-county Southeastern Wisconsin region, but there is no comprehensive study available that quantifies relative chloride contributions to surface water and groundwater resources from multiple sources or that ties anthropogenic activities in specific geographic areas to chloride conditions in groundwater, streams, rivers, and lakes. Without the establishment of those connections between human activities and water resources conditions, under both existing and planned year 2050 conditions, actions to address environmental and infrastructure issues associated with chlorides in the environment cannot be efficiently and effectively targeted.

Chloride loads to surface and groundwater resources can potentially come from several significant sources including road salt applied for anti-icing and deicing of public and private roads, sidewalks and parking lots; water softening systems and other sources that discharge to sanitary sewers or private onsite wastewater treatment systems; salt storage areas; large agricultural feed lots; fertilizers; landfills; chemical manufacturing; and food processing.

The findings of several studies provide evidence that chloride concentrations have been increasing in surface waters of Southeastern Wisconsin. Increases have been documented through long-term water quality monitoring of streams and rivers. Chloride concentrations from samples collected at various times from spring through fall at water quality monitoring stations along the Milwaukee River during the period 1975 through 2004 and along the Root River during the period 1964 through 2012 indicate strong trends toward increasing concentrations of chloride in the rivers. Chloride concentration data for inland lakes in Southeastern Wisconsin have also indicated an increasing trend in concentrations. Increases in chloride concentrations over time have been documented in other streams and rivers in the region. The findings of a recent United States Geological Survey study suggest that there may be a widespread trend toward increasing chloride concentrations in streams of the northern United States. This study examined 30 sites on 19 streams including sites on the Kinnickinnic, Menomonee, Milwaukee, and Root Rivers within Southeastern Wisconsin. This is important to MMSD, because more waterbodies under MMSD's jurisdiction are being listed as impaired for chlorides, making it increasingly difficult to naturalize streams and promote biodiversity with traditional watercourse work. The findings of this study will help the District better understand opportunities to responsibly use green infrastructure (GI) to capture runoff with high chloride concentrations to promote both stable hydrology and mitigate pollutant loadings. GI can also help prevent chloride present in runoff from reaching the District's water reclamation facilities that are not designed to remove chloride. Findings will help to optimize placing GI to prevent infiltration to shallow aquifers; monitoring data also suggest that chlorides may be accumulating in groundwater that discharges into waterbodies during base-flow conditions.

RESOLUTION

Authorization to Execute an Intergovernmental Cooperation Agreement between the Southeastern Wisconsin Regional Planning Commission and the Milwaukee Metropolitan Sewerage District for a Regional Chloride Impact Study

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RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized and directed to execute a four-year intergovernmental cooperation agreement between the Southeastern Wisconsin Regional Planning Commission and the Milwaukee Metropolitan Sewerage District for a Regional Chloride Impact Study, Contract P-2737, in an amount not to exceed $170,000.