



Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street
Chicago, IL 60611

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Title: Issue purchase order and enter into an agreement with the University of Illinois at Urbana-Champaign for Contract 19-857-5F Watershed Specific Stormwater Release Rates Study, Phase III for the Illinois State Water Survey to conduct studies on impacts of watershed specific release rates required under Watershed Management Ordinance Article 208, in an amount not to exceed \$631,071.00, Account 501-50000-612440-4321, Requisition 1551315

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11/19/2020	1	Board of Commissioners	Approved	Pass

TRANSMITTAL LETTER FOR BOARD MEETING OF NOVEMBER 19, 2020

COMMITTEE ON PROCUREMENT

Mr. Brian A. Perkovich, Executive Director

Issue purchase order and enter into an agreement with the University of Illinois at Urbana-Champaign for Contract 19-857-5F Watershed Specific Stormwater Release Rates Study, Phase III for the Illinois State Water Survey to conduct studies on impacts of watershed specific release rates required under Watershed Management Ordinance Article 208, in an amount not to exceed \$631,071.00, Account 501-50000-612440-4321, Requisition 1551315

Dear Sir:

Authorization is requested to issue a purchase order and enter into an agreement with the University of Illinois at Urbana-Champaign (U of I) for Contract 19-857-5F Watershed Specific Stormwater Release Rates Study, Phase III for the Illinois State Water Survey (ISWS) to conduct studies on impacts of watershed specific release rates required under Watershed Management Ordinance (WMO) Article 208. The methodologies for these studies were approved by the Board of Commissioners (BOC) on November 7, 2019 and further defined by the BOC's Committee on Stormwater Management on November 14, 2019 and April 13, 2020.

The Phase III studies will be conducted under the auspices of the Master Agreement between U of I and the District, authorized by the BOC at the Board Meeting of September 19, 2002, and amended to extend the termination date by the BOC at the Board Meetings of October 16, 2003, May 3, 2007, December 16, 2010, March 15, 2012, August 6, 2015, and December 19, 2019. The current master agreement ends December 31, 2022. The purpose of the Master Agreement is to allow the District to directly take advantage of the expertise offered by U of I. ISWS is one of the five Prairie Research Institute state scientific surveys formed as a group under the auspices of U of I.

Article 208.2 requires a study of the impact of watershed specific release rates on disproportionately impacted communities. In 2015, the District contracted with the ISWS to complete a watershed specific release rate study as directed in Article 504.3 of the WMO effective on May 1, 2014. The goal of the study was to determine the maximum allowable release rates that will not exacerbate flooding due to development. In Phase I of the study, steps were outlined for computing watershed specific release rates. Upper Salt Creek watershed and Stony Creek sub-watershed were the two pilot areas studied during Phase I. The methodology was applied to other watersheds within the District in Phase II. The goal of Section 208.2 of Phase III is to provide additional exhibits and assessment summaries based on the modeling completed in Phases I and II of the Watershed Specific Release Rate Study to support understanding of the potential impact of the selected release rates for disproportionately impacted communities. Disproportionately impacted communities have been defined as areas that have a Chicago Metropolitan Agency for Planning (CMAP) Urban or Riverine Flood Susceptibility Index (FSI) mean value of 5-10, as of July 24, 2018, and is within a Low to Moderate Income Area as defined by the U.S. Department of Housing and Urban Development (HUD).

Article 208.3 requires a study of impacts of release rates under existing and future development scenarios in collar counties on watersheds in the District. As part of the Watershed Specific Release Rate Study, ISWS evaluated release rates by comparing results from the Detailed Watershed Plan base models with results from future scenario models. Models of future development in Cook County simulated conditions at release rates ranging from 0.15 cfs/acre to 0.30 cfs/acre. Models of future development in portions of collar counties upstream of Cook County simulated conditions at the respective county's current release rate. The goal of Section 208.3 of Phase III is to expand upon the methodologies developed in Phases I and II of the Watershed Specific Release Rate Study and include an additional assessment of watershed management decisions outside of the District that could impact potential flood risks within Cook County, excluding the City of Chicago. As such, ISWS will model future development conditions in portions of the collar counties upstream of Cook County at various release rates, ranging from 0.15 cfs/acre to 0.30 cfs/acre.

Article 208.4 requires a study of the impact of volume control and watershed specific release rates on stream erosion and related water quality effects such as turbidity and sedimentation. The Committee on Stormwater Management specified that salts, metals, and nutrients were to be used as indicators of water quality and added the requirement for physical sampling. The goal of Section 208.4 of Phase III is to identify the effect of watershed management strategies such as volume control and watershed specific release rates on stream erosion, turbidity, and sedimentation. To evaluate if particular watershed specific release rates for Cook County may affect stream erosion and sedimentation, ISWS will conduct a literature review on urban stream erosion and the relationship between the magnitude and frequency of flows from watersheds with different management practices. The literature review will include existing volume control best management practices and their removal efficiency of salts, metals, and nutrients. Based on the results of the literature review a pilot watershed analysis related to stream erosion and sedimentation for two sub-watersheds may also be studied. The information obtained during the literature review will be used to develop a water sampling plan the District may use for a future Phase IV field analysis study.

The timeframe to conduct the Phase III studies is 13 months. ISWS has submitted a proposal in the amount of \$631,071.00 to perform the Phase III studies. The Engineering Department reviewed the proposal and found it to be acceptable.

Since the services to be provided are professional in nature, and the aforementioned university is reputable, it is recommended that the purchase order be issued without advertising, as per Section 11.4 of the Purchasing Act.

In view of the foregoing, it is recommended that the Director of Procurement and Materials Management be authorized to issue a purchase order and enter into an agreement with U of I, in an amount not to exceed \$631,071.00.

Funds for the 2021 expenditure, in the amount of \$313,165.00, are available in Account 501-50000-612440-

4321. The estimated expenditure for 2022 is \$317,906.00. Funds for the 2021 and 2022 expenditures are contingent on the Board of Commissioners' approval of the District's budget for those years.

Requested, Catherine A. O'Connor, Director of Engineering, KMF:MD

Recommended, Darlene A. LoCascio, Director of Procurement and Materials Management

Respectfully Submitted, Barbara J. McGowan, Chairman Committee on Procurement

Disposition of this agenda item will be documented in the official Regular Board Meeting Minutes of the Board of Commissioners for November 19, 2020