


COUNCIL COMMUNICATION

	Number:	18-612	Meeting:	November 19, 2018
	Agenda Item:	6A	Roll Call:	18-1891
	Submitted by:	Jonathan A. Gano, P.E., Public Works Director, and Steven L. Naber, P.E., City Engineer		

AGENDA HEADING:

Ordering construction of the following: Easter Lake South Watershed Pond Dredging and Improvements - Receiving bids, (12-4-18), and Setting date of hearing, (12-17-18). Construction Estimate - \$1,433,000.

SYNOPSIS:

Recommend the City Council proceed with construction of the improvement and set dates to receive bids and hold a public hearing, as required by Iowa Code, utilizing the method of financing referenced below. The project provides for the dredging of stormwater detention basins near the Three Lakes Estates area by S.E. 30th Street and E. Army Post Road. Dredging the stormwater basins upstream of Easter Lake will increase additional storage for silt deposition and will reduce sediment from flowing into Easter Lake. This sediment reduction will supplement the goals of the other projects constructed as part of the Easter Lake Water Quality Management Plan completed in 2012 in partnership with the Iowa Department of Natural Resources (IDNR) and Polk County.

FISCAL IMPACT:

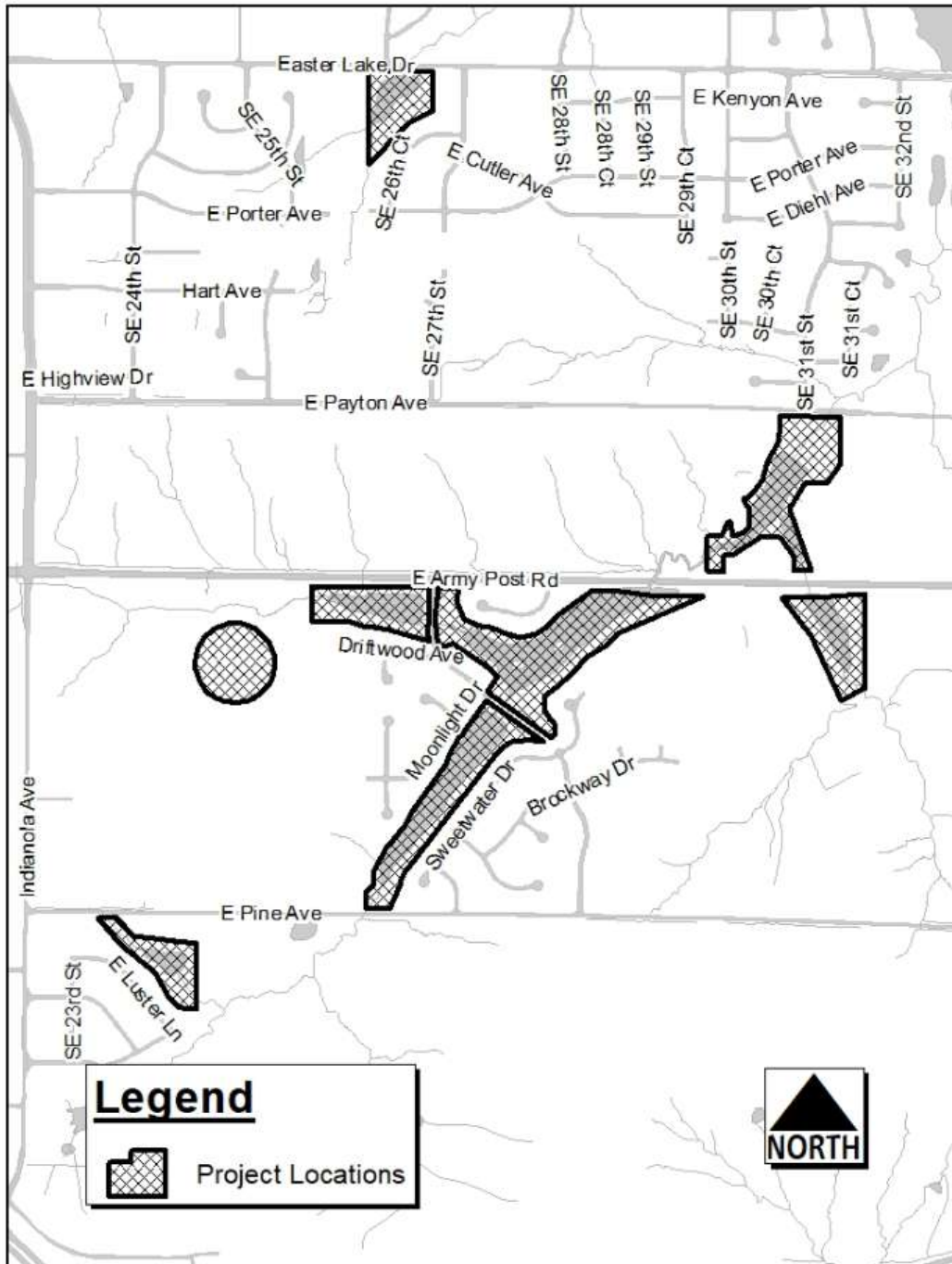
Amount: \$1,433,000 (City Engineer's Estimate)

Funding Source: 2018-2019 CIP, Page Storm – 7, Easter Lake Watershed Improvements, SM061, Being: Anticipated \$425,000 in IDNR Lake Restoration Funds, pending amendment to IDNR Agreement 18CRDLWBMBALM-0002; and the remaining \$1,008,000 in Storm Water Utility Funds.

ADDITIONAL INFORMATION:

- The Easter Lake Water Quality Management Plan (WQ Plan), issued in 2012, provided a comprehensive review of the causes of water quality degradation and potential solutions to improve Easter Lake water quality. The WQ Plan was co-sponsored by the IDNR, City of Des Moines, and Polk County Conservation Board. Other support agencies to the WQ Plan included the Iowa Department of Agriculture and Land Stewardship, Polk Soil and Water Conservation District, Natural Resources Conservation Service, and the Center for Agricultural and Rural Development.

- One (1) of the solutions from the WQ Plan was to improve the seven (7) Easter Lake storm water detention basins, which are located in the southeastern end of the lake's watershed. Roughly 20% of the Easter Lake's 6,380-acres watershed area drain through the detention basins.
- The seven (7) detention basins were constructed between 1998 and 2005, and based on sediment surveys completed in 2017, those seven (7) detention basins vary from 18% to 33% full.
- This project, Easter Lake South Watershed Pond Dredging Improvements, includes the following improvements to the seven (7) detention basins:
 - Basin dredging (all basins) - dredging over 66,000 cubic yards of sediment.
 - Installation of sediment forebays (on three {3} basins) – provides retention for a portion of the first flush stormwater runoff and allow sediment to settle out from incoming stormwater before it reaches larger basin; therefore, capturing a majority of the sediment which improves maintenance.
 - Regrading basin shoreline banks (steepen portions of shoreline banks) – reduces the shallow water areas that favor algae and rooted vegetative growth.
 - Create and expand longer grass buffer zones – provides additional filtering of stormwater runoff from lawns which have fertilizer, sediment, and animal waste and further discourages waterfowl traffic.
- The Engineering Department has prepared plans, specifications, form of contract documents, and City Engineer's estimate for the construction of the Easter Lake South Watershed Pond Dredging and Improvements, 08-2018-009. The improvement includes dewatering and dredging of multiple basins, Class 10 excavation, clearing and grubbing, Hot Mix Asphalt (HMA) trail paving, revetment, surface restoration, traffic control, and other incidental items; all work in accordance with the contract documents including Plan File Nos. 599-144/177, located near Three Lakes Estates by S.E. 30th Street along E. Army Post Road, Des Moines, Iowa.
- The estimated construction cost is \$1,433,000. The proposed plans, specifications, and form of contract documents are available for public inspection in the Des Moines City Engineer's Office.



PREVIOUS COUNCIL ACTION(S):

Date: August 14, 2017

Roll Call Number: [17-1388](#)

Action: [Cooperative](#) Agreement with Iowa Department of Natural Resources (IDNR) to Fund 50% of the Easter Lake Watershed Improvement Project. ([Council Communication No. 17-596](#)) Moved by Hensley to adopt. Motion Carried 7-0.

BOARD/COMMISSION ACTION(S): NONE

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

Anticipated actions include public hearing, receive and file bids, designate lowest bidder, and approve contract and bond; also, partial payments to the contractor and final acceptance of work.

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