1. Administrative Details

Proposal Name: Aquatic Ecosystem Restoration of Waukesha County Groundwater Resources

by Agency: City of Waukesha – Water Utility

Locations: WI

Date Submitted: 09/10/2015

Confirmation Number: 09c29970-7a36-43d7-b0b9-d0806a93df64

Supporting Documents

File Name	Date Uploaded
Corp Study Request Letter 2015 Signed Copy.pdf	09/10/2015

2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.

Sponsor	**Letter of Support**
City of Waukesha(Primary)	Letter from Mayor attached

3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.

[x] Feasibility Study

4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.

This proposal is about reducing the drawdown of area groundwater resources, helping groundwater-supported aquatic ecosystems rebound to pre-development conditions and providing a sustainable, healthy water supply for the City water supply service area. This service area currently obtains more than 87 percent of its water supply from the deep St. Peter Sandstone Aquifer with limited natural recharge characteristics. The continued use of this aquifer over that past century has led to a 400-foot decline. This drop has in turn affected regional surface waters, which now receive 18 percent less water as a result. The City obtains the remaining 13 percent of its supply from the Troy Bedrock Valley shallow aquifer. This use intercepts groundwater that would be discharged to surface water bodies and wetlands as base flow. Continued use will result in varied adverse impacts including loss of aquatic habitat, loss of ecosystem functions and shifts from wetlands toward upland natural communities. Time has shown that withdrawing more groundwater than is replenished is not sustainable for perpetuity. In addition, the deep aquifer is contaminated with radium, a known carcinogen, with increasing concentration as aquifer levels fall. The City is now under the consent order issued by the State of Wisconsin on behalf of the U.S. Environmental Protection Agency, to come into compliance with federal standards on radium, a human carcinogen, by June 30, 2018. This order has resulted in the City completing an application for a diversion of Great Lakes Water to the City under the Great Lakes-St. Lawrence River Basin Water Resources Compact (Compact). The Corp is assured that once the Feasibility Study begins, the project will have already met very high State, Regional and National standards as required by the Compact. The City sees the Feasibility Study as an opportunity to have the project elevated to Corp standards and serve as a starting point for a successful City/Corp partnership.

5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	**Non-Federal**	**Total**
Study	$400,000	$100,000	$500,000
Construction	$155,250,000	$51,750,000	$207,000,000

Explanation (if necessary)

6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.

Restoration of an Impaired Environment - This project will eliminate the City's use of groundwater for the purpose of environmental restoration of depleted groundwater aquifers. Completion of the project will help aquifers, and aquifer dependent aquatic ecosystems (surface waters and wetlands), recover to predevelopment conditions. The City would replace the continued use of groundwater with a Lake Michigan water supply that would recycle water back after use and treatment. The City's current groundwater system that discharges of fresh water from local aquifers to the Gulf of Mexico would be eliminated.

Protection of Human Life - The City is under a consent order issued by the State of Wisconsin on behalf of the U.S. Environmental Protection Agency that documents long-term noncompliance with federal standards on radium, a human carcinogen. The consent order requires compliance by June 30, 2018. The City also faces increasing problems with arsenic in its existing shallow aquifer and TDS and strontium in the deep aquifer. The draft Environmental Impact Study issued in June 2015, by the State of Wisconsin Department of Natural Resources, has determined that continued use of these two aquifers is not sustainable for the long term.

Maintaining the Community, Businesses and Industries – Waukesha's ongoing vitality and sustainability will be affected by the availability and affordability of its new drinking water source. Its 71,000 residents and significant local industry need and will continue to need, safe drinking water. The current project estimate of $207,000,000 projects the typical annual residential water bill to increase to over $1,000/year. With the City's water users facing this cost, adding the USACE expertise to the planning process will instill added confidence in the final solution.

7. Does local support exist? If 'Yes', describe the local support for the proposal.

[x] Yes

Local Support Description

Significant local support exists for this project and this proposal. Over the life of this project, the following have provided written support for federal resource help:

Tammy Baldwin, US Representative James Sensenbrenner, US Representative Ron Johnson, US Senator Herb Kohl, Former US Senator Milwaukee Water Council Golden Guernsey Dairy, LLC Badger Meter, Inc. Carroll University ProHealth Care SPX Waukesha Waukesha County Waukesha County Business Alliance Waukesha State Bank All Great Lakes Governors – by virtue of the requirements of the Compact

8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?

[x] Yes

Primary Sponsor Letter of Support

(As uploaded)

Corp Study Request Letter 2015 Signed Copy.pdf

City of Waukesha

OFFICE OF THE MAYOR

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WAUKESHA, WISCONSIN 53188-3633
TELEPHONE 262/524-3701 FAX 262/524-3899

August 27, 2015

Army Corps of Engineers
441 G Street NW.
Washington, DC 20314–1000

Re: City of Waukesha, Wisconsin
"Aquatic Ecosystem Restoration of Waukesha County Groundwater Resources"
Proposal for a Feasibility Study
For Inclusion in the USACE Annual Report to Congress

To Whom It May Concern:

Pursuant to your request for candidates from non-Federal interests to be included in the February 2016 U.S. Army Corps of Engineers Annual Report to Congress on Future Water Resources Development, I hereby provide this letter of overall City support for our inclusion.

We look forward to this potential City/Corps partnership to continue the process of reducing the drawdown of area groundwater resources, helping groundwater-supported aquatic ecosystems rebound to pre-development conditions and providing a sustainable, healthy water supply for the City water supply service area.

Should you need any further information or if any effort on our part will expedite review, approval or inclusion of this Study in your report to Congress, please contact me.

Very Truly Yours,

Shawn N. Reilly

Shawn Reilly
Mayor

Cc: Dan Duchniak

Reilly/Aquatic Ecosystem Restoration 8 27 15