CITY OF WEST DES MOINES
CITY COUNCIL MEETING COMMUNICATION

DATE: February 9, 2015

ITEM: Resolution – Approval of Grant Application – Iowa Department of Agriculture and Land Stewardship Water Quality Initiative Targeted Demonstration Watershed Projects – West Des Moines City/School Campus Pond Watershed Improvements

FINANCIAL IMPACT: Possible grant revenue of $33,000. The total project cost is estimated at $70,535 with a City match of $34,770 plus $2,765 in in-kind services provided by City staff. The City's match will be paid out of available funds in the stormwater enterprise fund.

BACKGROUND: The Iowa Department of Agriculture and Land Stewardship (IDALS) has funding available for urban conservation projects that reduce nutrient loading to waters of Iowa. With the approval of City Manager Hadden, the Parks and Recreation Department submitted a pre-application for a project to improve the quality of the pond on the City/School Campus. The project was chosen as one of 10 out of 35 pre-applications to proceed to the next step of a full application.

The proposed project involves three components as follows:

1. Native Plantings – There are currently 11 acres of City property on the slope to the southeast of the pond that will be planted in prairie native to Central Iowa. Vegetation in this area currently consists of a mix of brome and turfgrass that provides very little environmental benefits. By converting this to prairie, the soil will be improved, there will be increased infiltration of rainwater, and runoff into the pond and siltation will be decreased. Other benefits include increased aesthetics, improved wildlife habitat, less frequent mowing, lower fertilizer and herbicide use, and educational opportunities.

   All work will be performed by Parks staff who are trained and experienced in the establishment of prairie. The total cost for this component is approximately $14,535 with a portion of that being for erosion control measures. In-kind services provided by the City make up approximately $2,765 of the total cost.

2. Soil Restoration – The soil around the City facilities on the City/School Campus is highly compacted fill with a large clay content. The proposed project will restore approximately 5.5 acres of soil. This will involve aerating the site with a plug or deep-tine aerator to a depth of about 6 inches and then applying gypsum and compost. The main benefit of this project component is improved water infiltration which will decrease runoff into the pond. The addition of organic matter will also benefit turf quality and may reduce fertilizer and pesticide applications. The total cost of this component is $53,000 with the work being contracted.

3. Education & Outreach – The Parks and Recreation Department Green Team made up of staff from all areas of the department will lead educational efforts related to the above projects and watershed improvements in general. Some possible efforts include neighborhood meetings, programs at Valley Southwoods and Jordan Creek Elementary

schools, reading groups at the Library, and mailing of informational materials. The cost of educational efforts is estimated to be $3,000.

A draft full application is attached for review.

OUTSTANDING ISSUES: None

RECOMMENDATION: That the Council approve the Resolution.

Lead Staff Member: Sally Ortgies

STAFF REVIEWS

Department Director	
Appropriations/Finance	
Legal	
Agenda Acceptance	RTG

PUBLICATION(S) (if applicable)

Published In	
Dates(s) Published	

SUBCOMMITTEE REVIEW (if applicable)

Committee	N/A		
Date Reviewed			
Recommendation	Yes	No	Split

RESOLUTION OF THE WEST DES MOINES CITY COUNCIL APPROVING THE APPLICATION FOR THE PURPOSE OF RECEIVING AN IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP WATER QUALITY INITIATIVE TARGETED DEMONSTRATION WATERSHED PROJECTS GRANT

WHEREAS, the Iowa Department of Agriculture and Land Stewardship has grant funds available for water quality improvement projects; and

WHEREAS, the City of West Des Moines City Council is supportive of this application; and

WHEREAS, the application from the City of West Des Moines will be submitted to the the Iowa Department of Agriculture and Land Stewardship by the February 27, 2015 deadline;

NOW THEREFORE BE IT RESOLVED by the City Council of the City of West Des Moines that the following grant application be submitted to the Iowa Department of Agriculture and Land Stewardship by the February 27, 2015 application deadline:

PROJECT NAME	REQUEST AMOUNT
West Des Moines City/School Campus Pond Watershed Improvements	$33,000

Passed and adopted this 9th day of February, 2015.

Steven K. Gaer, Mayor

Ryan Jacobson, City Clerk

Iowa Department of Agriculture & Land Stewardship

WATER QUALITY INITIATIVE
TARGETED DEMONSTRATION WATERSHED PROJECTS
APPLICATION FOR FUNDING ASSISTANCE

Project Title: West Des Moines City / School Campus Pond Watershed Improvements

Applicant Entity: City of West Des Moines

Contact Person: Sally Ortgies, Superintendent of Parks

Address: P.O. Box 65320, West Des Moines, IA 50265

Phone: 515-222-3447

E-mail: sally.ortgies@wdm.iowa.gov

Authorizing Signature: _____ ***Date:*** _____

Tom Hadden, City Manager

Surface Water: Primary - City / School Campus Pond (4200 Mills Civic Parkway, West Des Moines)
Secondary - Jordan Creek (West Des Moines)
Tertiary - Raccoon River (West Des Moines)

The City/School Campus Pond is located within property owned by the City of West Des Moines and the West Des Moines Community School District and is part of the North Raccoon watershed. The pond's primary purpose is for stormwater control serving as a detention area. Besides this, it provides for recreation such as fishing and the occasional triathlon swim event. The pond is used by teachers and students from two adjacent schools – Southwoods 9th Grade School and Jordan Creek Elementary School – for a variety of hands-on science activities. The Walnut Creek Alternative High School even holds their annual Cardboard Boat Regatta on the pond at the start of every school year. It is also the site for the City's annual temporary art display along the .5 mile long trail around the pond's perimeter. In addition to these tangible uses, the pond is aesthetically pleasing and an important focal point for the City/School Campus. It provides an important and highly visible gathering place for the citizens of West Des Moines.

Project Partners: City of West Des Moines (property owner/manager/user)

- City Manager's Office
- Parks & Recreation Department
- Public Works Department
- Engineering Department
- Library

Project Partners: (Cont.)

West Des Moines Community School District (property owner/manager/user)
Department of Natural Resources (pond/fishery improvement)
Polk Soil & Water Conservation District (technical assistance/public outreach)
Watershed Property Owners

- Single-Family/Townhome Residents
- Apartment Dwellers/Owners
- Valley Evangelical Free Church & West Des Moines Christian Church
- Commercial Property Owners

Budget Summary:

	IDALS Request	Partner Contributions	Landowner Contributions	Total Budget
4/15/15-6/30/15	$5,885	$8,650	$0	$14,535
7/1/15-6/30/16	$27,115	$28,885	$0	$56,000
Overall	$33,000	$37,535	$0	$70,535

Proposal Narrative:

Primary Components/Practices & Benefits

The proposed project is the first phase of a multi-phase project to make improvements to the City/School Campus pond watershed with the ultimate goal of better water quality and an improved urban fishery. This phase includes two components as follows:

1. Native Plantings – There are currently 11 acres of City property on a slope to the southeast of the pond that will be planted in a combination of dry/mesic and mesic prairie native to Central Iowa. The seed mixes being used are diverse with several grasses and a large variety of native forbs. Vegetation in this area currently consists of a mix of brome and turfgrass. All work will be performed by City staff with training and experience in the establishment of prairie. Planting would occur in May of 2015. The estimated cost of this component is $3,000. By converting this to prairie, the soil will be improved, there will be increased infiltration of rainwater, and runoff into the pond and siltation will be decreased. Other benefits include increased aesthetics, improved wildlife habitat, less frequent mowing, lower fertilizer and herbicide use, and educational opportunities for the public and students at the two adjacent schools.

2. Soil Upgrade – The soil around the City facilities on the City/School Campus is highly compacted with a large clay content. City staff has observed that during rain events stormwater runs off from turf areas directly into the pond. Water also tends to collect in low areas and can take days to disappear. The proposed project includes upgrading the soil over an area approximately 6 acres in size. The entire upgraded area is currently covered in turfgrass and is used for community events and youth sports. The project will involve aerating the site with a plug or deep-tine aerator and then applying gypsum and ½ inch of compost. This work will likely be contracted due to the extent of it and would occur in the fall of 2015. The estimated cost of this component is $60,000. The main benefit of this project component is improved water infiltration which will decrease runoff into the pond. The addition of organic matter will also benefit turf quality and may reduce fertilizer and pesticide applications.

Future Project Phases

The proposed project is part of a larger scale project that includes a major capital improvement project involving dredging of the pond. Due to siltation over time, the pond has become extremely shallow with a maximum depth of around 6 feet. The water quality is affected and at least one extensive fish kill was experienced in 2012. Before an investment is made in dredging the pond, it only makes sense to make improvements to the watershed. Other proposed components of the project include parking lot bioswales and installation of permeable pavement. These are still in the conceptual stages and will require engineering to determine their feasibility.

The ultimate goal of the larger project is to develop the pond into a high-quality urban fishery. There is a great demand for fishing locations that are close to home. The Department of Natural Resources recognizes the City/School Campus pond as an excellent way to serve this demand in West Des Moines. DNR staff has met with City staff to begin planning and encouraged the City to begin making watershed improvements such as those that are part of this application.

Project Funding

The City will provide a match of all eligible costs through its stormwater enterprise fund. In addition, the City will provide in-kind labor and equipment for all components of the project. Since the proposed components of the first phase of this project are taking place entirely on City-owned property, there are no landowner contributions anticipated at this time.

Project Evaluation

Several evaluation methods will be utilized including tests of pond water quality before and after the project is completed, soil permeability tests, and surveys of the watershed property owners to gauge increased awareness. The Department of Natural Resources has agreed to assist the City in preparing a Water Quality Monitoring Plan.

Education / Information Program

Education is critical as it will be necessary to change habits and practices throughout the pond watershed in order to have an impact on the pond and its water quality. Watershed improvement is also needed in order to make the large investment to dredge the pond. City staff along with our partnering agencies will provide educational programs and materials to the various property owners. The Parks and Recreation Department Green Team made up of staff from all areas of the department will lead the educational efforts. Due to the presence of several City and School facilities within the watershed, great opportunities for education exist. These may include everything from small neighborhood events to a program that touches every elementary student at Jordan Creek Elementary, a reading club at the Library focusing on books about water, or a direct mailing of informational material to targeted areas. One focus will be on creating awareness about how water ends up in the City/School Campus pond. Part of this awareness campaign may include marking intakes within the watershed and signage on the Campus. The temporary art display that takes place around the pond every summer may also be able to incorporate water and water quality as a theme. The cost of educational efforts is estimated to be $3,000.