

RESOLUTION #11-16-2015B

A Resolution approving proposal to apply for grant not to exceed \$100,000 City portion for Water Quality Demonstration Project.

Motion made by \_\_\_\_\_, seconded by \_\_\_\_\_ to \_\_\_\_\_  
Resolution #11-16-2015B

Resolution #11-16-2015B \_\_\_\_\_ on November 16, 2015, by the following roll call vote:

YES:

NO:

ABSTAIN:

ABSENT:

MOUNT VERNON CITY COUNCIL  
MOUNT VERNON, IOWA

\_\_\_\_\_  
James L. Moore, Mayor

ATTEST:

\_\_\_\_\_  
Sue Ripke  
Assistant City Administrator/Clerk

# Memorandum

**To:** Honorable Mayor and City Council

**From:** Stormwater Sustainability Committee

**Date:** November 12, 2015

**RE:** Water Quality Demonstration Project

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The committee is continuing to prepare the application and preliminary budget to meet the December 11, 2015 submittal deadline. A strong candidate for a fundable project was determined to be in the northerly right of way of U.S. Highway 30 in front of 533 through 517 Highway 30 SW.

These are a few of the items that help to make this an attractive candidate for funding:

Compact manageable drainage areas

Relatively flat unobstructed public areas for stormwater treatment

This is a highly visible area. U.S. Highway 30 traffic counts are in the vicinity of 10,000 vehicles per day (VPD). The possible addition of a trail along the northerly ROW adjacent to the proposed bio retention cells would also add to potential viewers from a pedestrian point of view.

Opportunities to expand the treatment area beyond what would be accomplished by this project alone.

The potential stormwater treatment amenities would fit within the long range corridor concept by the construction of the 10' width trail as shown on the regional comprehensive trails plan approved in the visioning process. Also the landscaping of the existing "ditches" would continue to help urbanize a former rural highway section by decreasing the steep sideslopes which make much of this area difficult, dangerous, or not possible to mow.

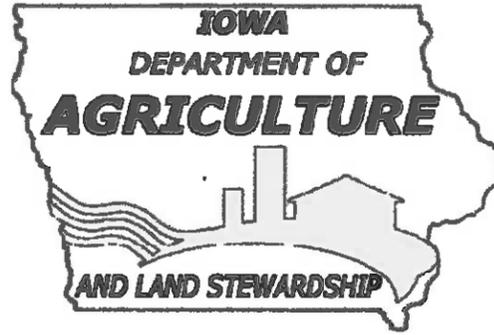
Although there is no specific budget set forth yet, the application guidelines suggest an asking of less than or equal to a project cost of \$200,000.00 which would include a \$100,000.00 local cost share (50%). An estimated budget will need to be included in the application when it is submitted.

The tasks that yet remain are:

Trimming the total project scope to fit within the budget set forth by City Council in the proposed resolution and still proposing a project that meets the goals of the funding agreement

Acquiring official support from partnering organizations, institutions, and property owners.

If the application is approved by a resolution, the application will then be submitted prior to the December 11, 2015 deadline.



**Request for Pre-Applications  
Iowa Department of Agriculture and Land Stewardship**

**Water Quality Initiative  
Urban Conservation Projects**

**Pre-Applications are Due:  
NO LATER THAN 4:30 PM  
FRIDAY, DECEMBER 11, 2015**



IDALS is seeking applications for projects that demonstrate strong ties to the Iowa Nutrient Reduction Strategy by focusing on adoption of urban conservation practices that provide nutrient load reductions to water resources in combination with outreach and education components demonstrating how projects will work to support the nonpoint source action items outlined in Section 1 of the Iowa Nutrient Reduction Strategy. The Iowa Nutrient Reduction Strategy can be viewed at <http://www.nutrientstrategy.iastate.edu>.

Applicants should demonstrate a proven track record of delivering low-impact development strategies and practices and have established strong partnerships with stakeholders that have or will be contributing significant resources to the project.

Desired outcomes for these projects will include concentrated efforts to demonstrate urban conservation practices paired with strong outreach/education components to disseminate information on these practices to promote increased awareness and adoption of available practices and technologies for achieving reductions in nutrient loads to surface waters. Quarterly, annual, and final reports will be required to document project progress and products as well as to provide aggregate accounting of practice adoption levels. Successful projects will serve as local and regional hubs for demonstrating urban conservation practices and providing practice information to other communities. We look forward to working with applicants for these funds to support demonstration projects across the state.

#### **ELIGIBLE APPLICANTS**

Soil and Water Conservation Districts (SWCDs), counties, county conservation boards, cities or other units of government, not-for-profit non-governmental organizations (NGO's) authorized by the secretary of state, public water supply utilities or watershed management authorities are eligible to submit applications. Applicants must be able to demonstrate legal authority to construct and maintain practices in the intended location prior to submittal of applications. Due to the nature of this program and the emphasis on implementation of urban conservation practices and documentation supportive of the nutrient reduction strategy, *applicants must* collaborate with IDALS's Urban Conservation Program staff. Applicants are also strongly encouraged to partner with stakeholders that will benefit from installation of urban conservation practices and would be able to assist with education and information transfer.

#### **ELIGIBLE EXPENSES**

Eligible expenses include:

- Project costs (State funds not to exceed 50% cost) for the design and installation of urban conservation practices that are included in the Iowa Stormwater Management Manual (ISMM) and designed according to the design guidelines of the ISMM.
- Other practices (State funds not to exceed 50% cost) included in the Iowa Nutrient Reduction Strategy and designed and implemented according to NRCS standards and specifications.
- Outreach/education components such as field days, publications, signs, and informational meetings.

#### **PROJECT DURATION**

Priority will be given to applications that can demonstrate the ability to rapidly implement the project / practices funded under this RFP. Funds must be allocated / obligated no later than June 30, 2016 with installation completed no later than June 30, 2017. A high quality project with the possibility of future phases may be eligible for additional funding depending on future funding availability, project quality and project performance. Project funds will be available upon execution of a funding agreement with IDALS (anticipate agreements will be in place on or prior to April 1, 2016). Projects cannot incur reimbursable expenses before the funding agreement is executed.

#### **DISBURSEMENT OF FUNDS**

The Primary Grantee will be responsible for submitting payment requests to IDALS. Expense payments will be made on cost reimbursable basis. The Grantee will submit invoices and/or other required documentation to IDALS for the disbursement of funds. An explanation of the process and the required documentation will be provided to the Grantee by IDALS as part of the project agreement process.

#### **FISCAL MANAGEMENT**

The Primary Grantee must include documentation of their ability to provide appropriate fiscal management of the funds requested in the project application. If the group is unable to meet this requirement themselves, they may include documentation of their partnership with an entity that has an appropriate fiscal management structure in place in order to be considered an eligible applicant.

### **PRE-APPLICATION DETAILS**

Pre-applications must be submitted following the format and page limits provided. Maps and letters of support will not count against stated page limits. Letters of support are not required as part of the pre-application but an indication of primary partners and their roles/contribution to the project should be provided. Letters of support documenting partner's roles/contributions will be required if a full application is requested.

Potential applicants must schedule a meeting with an IDALS Urban Conservationist to help formulate strong projects and pre-applications. Pre-applications will be reviewed by IDALS, and applicants that will be requested to submit full applications will be notified by January 5, 2016. Pre-applications must be submitted to be considered for full-application submittal.

### **FULL-APPLICATION DETAILS**

Full-applications will be requested by a select number of pre-applications based an internal review by IDALS. Applicants requested to provide full applications to IDALS will be notified by January 5, 2016 and full applications expected to be due by February 2, 2016. Additional guidance on developing a full proposal will accompany notification to applicants by IDALS on January 5, 2016.

The projected timeline for the complete application process is detailed below:

- Pre-applications open: October 13, 2015
- Pre-applications due: December 11, 2015
- Selected pre-applications notified: January 5, 2016
- Full-applications due: February 2, 2016
- Selected full-applications notified: February 23, 2016
- Anticipated project start date: April 1, 2016

### **PRE-APPLICATION REVIEW & SELECTION**

Pre-applications will be reviewed by IDALS. Notification by IDALS of request to submit full applications will be done by January 5, 2016. Selected applicants will have the opportunity to meet with a representative(s) of IDALS at a mutually agreed upon time and location to discuss the pre- and full-application prior to the full-application due date of February 2, 2016.

#### **Pre-Application Evaluation Factors (points in parentheses- 100 points possible)**

- Demonstrated ability to implement the project /practices in an efficient manner; readiness to proceed quickly upon project approval (20)
- Project reduces nutrient loading to a water resource of high value to a large population of users (10)
- Demonstrated strong partnerships and landowner willingness/participation levels (10)
- Demonstrated linkages providing benefits to both urban and rural populations in the watershed (10)
- Demonstrated ability to reduce nutrient loading to Iowa surface waters (10)
- Collaborative outreach/education efforts to increase practice adoption and disseminate information broadly (10)
- Identified financial and in-kind support available from project partners as matching funds/resources (10)
- Project evaluation: Are the expected outcomes measurable, and is the evaluation plan suitable for measuring the outcomes? (10)
- Targeting of most effective practices to areas providing most benefit (10)

### **PRE-APPLICATION ASSISTANCE**

For assistance with pre-applications contact the Regional Urban Conservationist for your area or the Urban Conservation Program Coordinator:

Wayne Petersen, Urban Conservation Program Coordinator  
515-281-5833 (office) or 319-430-7480 (mobile) or [Wayne.petersen@iowaagriculture.gov](mailto:Wayne.petersen@iowaagriculture.gov)

- Western Iowa
  - Derek Namanny – 712-336-3782 x 3 or [Derek.Namanny@ia.nacdnet.net](mailto:Derek.Namanny@ia.nacdnet.net)

- Eastern Iowa
  - Amy Bouska – 319-337-2322 x 3 [Amy.Bouska@ia.nacdnet.net](mailto:Amy.Bouska@ia.nacdnet.net)
- Central Iowa
  - Jennifer Welch – 515-964-1883 x 3 or [Jennifer.Welch@ia.nacdnet.net](mailto:Jennifer.Welch@ia.nacdnet.net)

For additional assistance, please contact the following IDALS Water Quality Initiative staff:

Matthew Lechtenberg, Water Quality Initiative Coordinator  
515-281-3857 or [Matthew.lechtenberg@iowaagriculture.gov](mailto:Matthew.lechtenberg@iowaagriculture.gov)

Will Myers, Water Quality Initiative Projects Coordinator  
515-725-1037 or [Will.myers@iowaagriculture.gov](mailto:Will.myers@iowaagriculture.gov)

**SPECIAL NOTES**

The Iowa Department of Agriculture and Land Stewardship (IDALS) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.)

Distribution of pre-applications is limited to people involved in the review process, but note that all pre-applications and subsequent reports and related information are in the public domain. All reports related to funded projects will be made available to all interested parties in printed, electronic, or other means of communication, without discrimination.

Names, addresses and telephone numbers of Project Coordinators (from funded projects) may be provided to interested news entities, potential project participants, or organizations for subsequent inquiries. Applications are used in the peer review process and submission of an application establishes consent by the author for appropriate distribution to fulfill review requirements.

Selected applicants of pre-applications will be requested to provide a full-application for consideration of funding. Full-applications approved for funding will be required to enter into a project agreement with IDALS. Sponsors of approved projects will be required to submit quarterly, annual, and final project reports utilizing forms and guidance provided by IDALS.

**PROCEDURE FOR SUBMITTING PRE-APPLICATIONS**

Submit one electronic copy of your project application to IDALS. Arrival date and time of the electronic copy will be used to determine whether an application has been submitted on time. **Pre-applications must be received by 4:30 PM on December 11, 2015.**

Applications will be accepted by either of the following methods:

1. Submit the electronic copy of the pre-application on some type of magnetic storage medium (CD, Flash drive, etc.) and deliver it to the address below:

*Iowa Department of Agriculture and Land Stewardship  
Division of Soil Conservation and Water Quality  
c/o Tarrita Spicer  
502 East 9th Street  
Des Moines IA 50319*

2. Submit the electronic file containing your application in an attachment by e-mail addressed to [Tarrita.spicer@iowaagriculture.gov](mailto:Tarrita.spicer@iowaagriculture.gov). The file size limit for submission of applications by e-mail is 10MB in size. Hard copies of the pre-application will not be accepted without an electronic copy. If you need assistance submitting your pre-application, please contact Tarrita Spicer at 515-281-5851 or [Tarrita.spicer@iowaagriculture.gov](mailto:Tarrita.spicer@iowaagriculture.gov).

WATER QUALITY INITIATIVE  
TARGETED DEMONSTRATION WATERSHED PROJECTS  
PRE-APPLICATION FOR FUNDING ASSISTANCE

Iowa Department of Agriculture & Land Stewardship

**Proposal Cover Sheet:** (1 page maximum)

Provide the following information on the Proposal Cover Sheet. Additionally, include the signature of the District Chairperson (if applicable) authorizing submission of the proposal.

1. Project Title: **U.S. Highway 30 Bioretention Cells & Recreational Trail**

Applicant Entity: City of Mount Vernon, Iowa

Contact Person: Mike Beimer

Address: 213 First Street  
Mount Vernon, Iowa 52314

Phone: (319) 895-8742

E-mail: mbeimer@cityofmtvernon-ia.gov

2. List the name, location, and the importance of the surface water that will be benefit by this project:

**Willow Creek Importance**

Treated stormwater from the project site will be released to Willow Creek, a tributary of the Cedar River. Willow Creek meanders 3.6 miles southeast where it outlets to the Cedar River approximately 3.3 miles southeast of Palisades-Kepler State Park and 4.1 miles northeast of Sutliff Landing recreation area. Stormwater quality, detention, and reduction will contribute to a healthier and more aesthetically pleasing environment for future downstream development within the Mount Vernon city limits.

**Cedar River Importance**

The Cedar River is on the Iowa DNR's 303(d) list of impaired water bodies. In Linn County, the Cedar River has bacterial, pH and aquatic life impairments. Improving the water quality of Willow Creek, a tributary of the Cedar River, will also help improve the water quality of the Cedar River. Since the Cedar River is a large recreational water body in Eastern Iowa, many people both inside and outside the city limit of Mount Vernon will reap the benefits of this water quality project.

3. Include a listing of project partners at the time of pre-application:

- Property owners adjacent to project site
- Iowa Department of Transportation (IDOT)
- Natural Resources Conservation Service (NRCS)
- Linn County Soil & Water Conservation District (LCSWCD)
- Iowa Department of Agriculture and Land Stewardship (IDALS)
- Mount Vernon High School & Middle School
- Cornell College
- City of Mount Vernon Library

4. Provide a total budget summary, utilizing the format shown here:

	IDALS Request	Applicant Contributions	Partner Contributions	Total Budget
April 1, 2016 – June 30, 2016	\$100,000	\$100,000		\$200,000
July 1, 2016 – June 30, 2017				
<b>Overall</b>	\$100,000	\$100,000		\$200,000

**Pre-Proposal Narrative:** (2 page maximum)

Provide a brief narrative on the following items: **SEE ATTACHED**

- Describe the primary components/practices that will be installed by this project.
- Describe the primary anticipated benefits from each partner and benefits to urban and rural populations in the watershed.
- If there will be other / future phases of this project or if the things that would be funded by this application are part of a larger scale project, describe the larger project and how this application fits in or compliments other aspects of a larger project.
- Describe how the project will be evaluated to determine if anticipated benefits are realized.
- Describe the education/information program that will be developed as part of the project and anticipated budget.

Provide a description of each practice utilizing the format shown here (Table will not count towards the two-page maximum):

<b>Practice #1:</b> (provide name and description of practice)	<b>IDALS:</b> (IDALS budget contribution to practice)
<b>Bioretention Cells</b>	<b>TOTAL:</b> (Applicant and partner budget contributions to practice)
<b>Practice Details:</b> (provide a general description of the location, design status, permits required, and current permit status)	
Bioretention cells will be installed in existing drainage ditches adjacent to Highway 30. The drainage site has been reviewed and is the appropriate size and location for the selected BMPs. A DOT right-of-way permit will be needed for the project. No application has been submitted to the DOT, but the DOT is aware of the City's plans for the to install BMPs and is supportive of the project.	
<b>Practice #2:</b> (provide name and description of practice)	<b>IDALS:</b> (IDALS budget contribution to practice)
<b>Permeable Trail</b>	<b>TOTAL:</b> (Applicant and partner budget contributions to practice)
<b>Practice Details:</b> (provide a general description of the location, design status, permits required, and current permit status)	

**1) Describe the primary components/practices that will be installed by this project.**

**PROJECT DESCRIPTION**

The City of Mount Vernon proposes installation of **Bioretention Cells and a Recreational Trail** in a highly visible area adjacent to Highway 30. The drainage area for this project site consists of residential and commercial development with approximately 4.3 acres of impervious surface. The area where the bioretention cells will be installed is presently a turf grass drainage ditch.

**DRAINAGE AREA & STORM WATER BENEFITS**

The impervious surface (4.3 acres) receives roughly 4 million gallons of precipitation per year.<sup>1</sup> **We estimate these installations will treat 80-90% of that water, or roughly 3.5 million gallons of storm water per year**, and improve water quality in the receiving stream. Water filtration and infiltration is particularly important in this region of the State, as Iowa Nutrient Reduction Strategy estimates that the Major Land Resource Area (MLRA) in which we are located is the second largest contributor of nitrogen (out of ten) from turfgrass fertilization in the state.<sup>2</sup>

**PROJECT VISIBILITY**

**SIGNAGE** - The project will include ample and appropriate signage. Signage will describe the best management practices that have been installed (BMPs), how the BMPs improve water quality and how the project itself fits into Iowa's Nutrient Reduction Strategy. **The project scope calls for signage that is visible from Highway 30.** Signage will also offer ideas for "Take Home Projects" that citizens can implement in their own yards, and how these "Take Home Projects" benefit Iowa's Nutrient Reduction Strategy.

**HIGHWAY 30** - The proximity of this project site to Highway 30 and the subsequent increased visibility cannot be overstated. **Approximately 10,000 vehicles per day will drive by the project site on Highway 30.** Moreover, the targeted stretch of land for this project falls between two "roundabouts." The "roundabouts" slow traffic to a speed that will allow drivers to take in this sight and the project signage safely.

**REGIONAL TRAIL SYSTEM** - The project location currently sees considerable foot traffic from the nearby high school. Foot traffic will undoubtedly increase upon completion of the trail. **Furthermore, the new section of trail will connect to the Mount Vernon-Lisbon regional trail system and, eventually, will also connect to the Palisades-Kepler State Park Trail System.** Increased foot traffic from the high school and from the regional trail systems will further expand the visibility of the project and, coupled with signage, will help increase public awareness regarding storm water BMPs and Iowa's Nutrient Reduction Strategy.

**2) Describe the primary anticipated benefits from each partner and benefits to urban and rural populations in the watershed.**

**URBAN & RURAL POPULATIONS IN THE WATERSHED**

Runoff from the project site stems from urban development (i.e. stormwater runoff from both turf and impervious surfaces) and feeds into nearby Willow Creek. Willow Creek outlets into the Cedar River approximately 3 miles upstream of the Sutliff landing recreation area in Northeast Johnson County. The best management practices (BMP) proposed are designed to remove targeted nutrients to downstream waters and promote groundwater recharge. Since Willow Creek discharges upstream of a recreation site, targeted nutrient removal will benefit the recreational users downstream. Additionally, since Willow Creek is prone to flash-flooding, promoting groundwater recharge will decrease the volume of water discharged to the creek, which benefits both urban and rural populations in the watershed.

**PROPERTY OWNERS**

We are in contact with owners of adjacent properties, and anticipate that owners and residents will welcome the opportunity to have an aesthetically attractive buffer zone between their buildings and the highway. Business owners welcome the addition of a trail that will provide an educational, attractive, and safe path along Highway 30 to their businesses, which are now without even a sidewalk. These benefits ensure continued support for the project from multiple stakeholders.

**LINN COUNTY SOIL & WATER CONSERVATION DISTRICT**

This project will benefit the Linn County SWCD by providing them a demonstration site where educational Field Days can be planned and conducted.

<sup>1</sup> 18 acres(estimated from Google Earth) x 34.71 inches/year (Iowa average) x (1 foot/12 inches) x (325,851 gallons/acre-foot)

<sup>2</sup> Iowa Nutrient Reduction Strategy, Revised Version (October 1, 2014), section 2, p. 29. Accessed at <http://www.nutrientstrategy.iastate.edu/sites/default/files/documents/NRS2-141001.pdf>

**MOUNT VERNON HIGH SCHOOL, MIDDLE SCHOOL & CORNELL COLLEGE**

This project will benefit the college, the high school and the middle school by providing a demonstration site where students can learn about sustainable stormwater management practices and how those practice effect local and regional water quality issues. The project site will also provide opportunities for student to monitor water quality (see Educational Section for more detail).

**3) If there will be other / future phases of this project or if the things that would be funded by this application are part of a larger scale project, describe the larger project and how this application fits in or compliments other aspects of a larger project.**

The city of Mount Vernon is beginning to devote significantly more attention to issues of sustainability. The city council recently created a sustainability advisory committee (SAC), which is currently focusing on storm water management issues. This group has recently developed a rain-barrel rebate program to be implemented in Spring, 2016, along with a campaign to increase attention to ways that home-owners can assist with storm-water retention and thus help to prevent flooding. This project would dovetail nicely with the objectives of the rain-barrel rebate program and encourage homeowners to consider raingardens and other sustainable, rainwater management practices.

The area will also tie into an existing trail system in Mt. Vernon and Lisbon – which will result in high quantities of foot and bicycle traffic. Mount Vernon has recently installed permeable pavers at the city's fire station, and city officials are aware of their environmental benefits. The new bioswale and bioretention cells will take this new aattention to sustainability to another level.

**4) Describe how the project will be evaluated to determine if anticipated benefits are realized.**

The bioretention cell and bioswale will include piezometers for monitoring water activity, and provide data for short-term and long-term study. Water quality in the receiving body, Willow Creek, can be assessed before and after installation. Measured improvements in water retention or water quality offer one indicator of success.

Publicity and educational outcomes offers another. First, we could track the number of events which advertise visits to the project site (for example, the Mount Vernon Lincoln Arts Festival, or the Soil and Water Conservation District tours), and track the approximate number of visitors who attend these events. Second, we could track the numbers of visitors to the project's web page, anticipated to be on the city's website. Third, we would gather feedback from educators who use the site for experiential learning projects. Lastly, and most substantially, we might expect a certain percentage of participants to use resources we provide to follow through with the development of similar projects on a residential scale.

**5) Describe the education/information program that will be developed as part of the project and anticipated budget.**

*Signage:* Signage will be developed at two different levels. Signs capable of being read from a vehicle on Highway 30 will identify the site as implementing urban stormwater best management practices. Smaller signs geared toward foot and bicycle traffic will explain each practice implemented, with links to an explanatory website (located on the City of Mt.Vernon's website).

*Collaborations with schools:* DeAnne Searce is the 7<sup>th</sup>-12<sup>th</sup> grade ELP (Extended Learning Program) coordinator, and has carried out water monitoring activities with her classes for many years. The location of this site – within 0.25 miles of the middle school/high school complex – is ideal for integration into her IOWATER monitoring program. Professor Brian Nowak-Thompson teaches Environmental Chemistry at Cornell College (0.4 miles from the site), which focuses on the local watershed as the primary organizing principle of the class. His class would also participate in monitoring as well studying the design of the practices implemented in this project.

*Festivals:* Mount Vernon has had significant success at drawing in tourism for events such as Heritage Days, Chalk the Walk, Chocolate Stroll, and the Mount Vernon Arts Festival. We intend to integrate project goals with these events by handing out brochures with information on the project and encouraging visitors to visit the site.

*Trail Loop:* A "Sustainability Trail Loop" will be installed, leading visitors along the proposed trail and past the Middle School rain gardens and the Fire Station permeable paved parking lot and rain garden. A

brochure will be created explaining each feature, and new features can be added, expanding the trail over time.

*Business-owners:* The Mount Vernon-Lisbon Community Development Group (CDG) regularly schedules community-based events to promote the health of local businesses. Along with businesses located near the trailhead, CDG could organize an “opening” event to roll out the project for Mount Vernon residents.

*Mount Vernon Library:* Another partner would be the Mount Vernon Library, who often arrange book and informational displays related to local, environmental projects, and who contribute a regular column in the Mount Vernon-Lisbon Sun. These would both be avenues for publicity and education.

*SWCD:* Tie into Soil & Water Conservation District’s “Field Day” events.

