

**MINUTES OF THE  
ENVIRONMENTAL PROTECTION COMMISSION  
MEETING**

**June 18, 2019**

**State of Iowa Capitol Room 116  
1007 East Grand Ave, Des Moines, IA**

**Approved by the Commission July 16, 2019**

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**Meeting Minutes**

**CALL TO ORDER**

The meeting of the Environmental Protection Commission was called to order by Chairperson Ralph Lents at 10:00 a.m. on June 18, 2019 at the State of Iowa Capitol in Des Moines, IA.

**COMMISSIONERS PRESENT**

- Amy Echard
- Stephanie Dykshorn
- Lisa Gochenour
- Rebecca Guinn
- Howard Hill
- Harold Hommes
- Tim Kaldenberg
- Ralph Lents
- Bob Sinclair

**COMMISSIONERS ABSENT**

None

**APPROVAL OF AGENDA**

*Motion was made by Bob Sinclair to approve the agenda as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**AGENDA APPROVED**

**APPROVAL OF MINUTES**

*Motion was made by Lisa Gochenour to approve the May 21, 2019 EPC minutes as presented. Seconded by Harold Hommes. Motion passes.*

**APPROVED AS PRESENTED**

**ACTING DIRECTOR’S REMARKS**

- Acting Director Bruce Trautman thanked the Commission and Department staff for their service. He shared with the Commission the Governor is conducting a nationwide search for a DNR Director and he will continue serving as Acting Director. He announced Karen Fynaardt and Jeff Swearngin will retire on June 27, 2019.

**INFORMATION**

**MONTHLY REPORTS**

- Acting Division Administrator Ed Tormey shared with the Commission a summary of the work with EPA and FEMA to offer State Revolving Fund bridge loans to assist communities in flood recovery. Jason Marcel, Field Services Bureau Chief, provided an update to the quarterly Hazardous Conditions Report explaining how the information is collected and that instances are higher this year compared to last year due in part to the severe weather we have experienced this year.
- The monthly report(s) has been posted on the DNR’s website under the appropriate meeting month: <http://www.iowadnr.gov/About-DNR/Boards-Commissions>

**INFORMATION**

**STATE REVOLVING FUND (SRF) LOAN PROGRAM PRESENTATION**

Theresa Enright, DNR SRF Coordinator, and Lori Beary, Iowa Finance Authority, presented an educational overview of the SRF program. The presentation included the history of the program, joint administration with multiple agencies, relationships with local banking institutions, and the difference between the various loan options for borrowers. The presentation also provided the opportunities for large, small, and disadvantaged communities.

**INFORMATION**

**CLEAN WATER AND DRINKING WATER STATE REVOLVING LOAN FUND – INTENDED USE PLAN UPDATE**

Theresa Enright presented the intended use plans for the SRF program. If there are EPA/FEMA related bridge loans requested, the fund would be able to absorb the requests without impacting the current intended use plans. The federal cap grant aids in growing the fund but the majority of the growth comes from the revolving nature of the program. Applicants who do not qualify for a loan due to their eligibility are worked with to aid them to become eligible applicants. Senate File 548 was summarized regarding limitations on the purchasing of land to be transitioned to a public entity.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Howard Hill to approve the agenda item as presented. Seconded by Rebecca Guinn. Motion passes.*

**APPROVED AS PRESENTED**

**SOLID WASTE ALTERNATIVES PROGRAM (SWAP) – CONTRACT RECOMMENDATIONS**

Tom Anderson presented contract recommendations for the SWAP program. He explained the goals of the two recommended projects.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Bob Sinclair to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**

**SOLID WASTE ENVIRONMENTAL MANAGEMENT SYSTEMS GRANT AWARD RECOMMENDATION**

Tom Anderson presented a grant recommendation from the Solid Waste Environmental Management Systems program. The solar panel project is estimated to provide 25% of the building’s electrical needs.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Lisa Gochenour. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE STATE HYGIENIC LABORATORY FOR LABORATORY CERTIFICATION**

Kathy Lee presented a contract for laboratory certification.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Tim Kaldenberg to approve the agenda item as presented. Seconded by Rebecca Guinn. Motion passes.*

**APPROVED AS PRESENTED**

Ed Tormey introduced Catharine Fitzsimmons, DNR Air Quality Bureau Chief. She provided a summary that the air quality monitoring contracts account for about 1/3 of the program’s expenses. The state’s air monitoring efforts encompass the entire state to ensure that Iowa does not exceed federal pollutant limits for public and environmental health.

**CONTRACT WITH UNIVERSITY OF IOWA ON BEHALF OF THE STATE HYGIENIC LABORATORY: 2020 SHL SERVICES IN SUPPORT OF THE DNR AIR QUALITY BUREAU**

Sean Fitzsimmons presented a contract with the State Hygienic Laboratory.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Bob Sinclair to approve the agenda item as presented. Seconded by Rebecca Guinn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE UNIVERSITY OF IOWA ON BEHALF OF THE STATE HYGIENIC LABORATORY FOR AMBIENT STREAM BIOLOGIC MONITORING SUPPORT**

Roger Bruner presented a contract with the State Hygienic Laboratory.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE UNIVERSITY OF IOWA ON BEHALF OF THE STATE HYGIENIC LABORATORY FOR AMBIENT STREAM MONITORING SUPPORT**

Roger Bruner presented a contract with the State Hygienic Laboratory. He described the rotation of sampling locations and contaminants. He also described the rationale for separating the contracts (this one and the last agenda item) in their scope and payment approaches.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Howard Hill to approve the agenda item as presented. Seconded by Lisa Gochenour. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE CITY OF DES MOINES (YEADER CREEK STREAM IMPROVEMENTS – PHASE TWO)**

Kyle Ament presented a contract with the City of Des Moines for Phase 2 of the project. He also explained the phase 1 estimates for load reduction based on the projects and best management practices.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Harold Hommes to approve the agenda item as presented. Seconded by Bob Sinclair. Motion passes.*

**APPROVED AS PRESENTED**

**GRANT AGREEMENT AMENDMENT # 1 THE ORIGINAL GRANT AGREEMENT WITH REGION XII COUNCIL OF GOVERNMENTS**

Bill Blum presented a grant agreement amendment with Region XII Council of Governments.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Bob Sinclair. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE UNIVERSITY OF NORTHERN IOWA, IOWA WASTE REDUCTION CENTER (IWRC)**

Bill Blum presented a contract with the University of Northern Iowa.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Howard Hill to approve the agenda item as presented. Seconded by Lisa Gochenour. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH IOWA ASSOCIATION OF SOIL CONSERVATIONS DISTRICT COMMISSIONERS, DBA CONSERVATION DISTRICTS OF IOWA**

Jason Marcel presented a contract with the Iowa Association of Soil Conservation Districts Commissioners.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Bob Sinclair to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE STATE HYGIENIC LABORATORY FOR MANGANESE ENVIRONMENTAL MONITORING AND LABORATORY SERVICES**

Anne Lynam presented a contract with the State Hygienic Laboratory. She summarized the partnership with 5 counties who provide onsite inspection services. Private drinking well owners have options through their local Grants to County partner to obtain water sampling. New drinking water wells are subject to sampling for manganese.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Howard Hill. Motion passes.*

**APPROVED AS PRESENTED**

**2020 CONTRACT WITH LINN COUNTY AIR QUALITY DIVISION: AIR POLLUTION CONTROL IN LINN COUNTY**

Christine Paulson presented a contract with Linn County. She explained the process and requirements for any county to gain a local air program.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Stephanie Dykshorn to approve the agenda item as presented. Seconded by Tim Kaldenberg. Motion passes.*

**APPROVED AS PRESENTED**

**2020 CONTRACT WITH POLK COUNTY AIR QUALITY DIVISION: AIR POLLUTION CONTROL IN POLK COUNTY**

Christine Paulson presented a contract with Polk County.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Tim Kaldenberg to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**

**2020 CONTRACT UNIVERSITY OF NORTHERN IOWA – IOWA AIR EMISSIONS ASSISTANCE PROGRAM (IAEAP): SMALL BUSINESS ASSISTANCE PROGRAM**

Christine Paulson presented a contract with the University of Northern Iowa. She summarized the fee structure of the Title V program supporting a small business assistance program.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Bob Sinclair to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**



**ADMINISTRATIVE LAW JUDGE PROPOSED DECISION**

David Scott summarized the decision made by an Administrative Law Judge. He explained the time frame for the appellant to appeal the decision. The Commission reviewed their options to support, modify, or reverse the decision.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Harrold Hommes to support the Administrative Law Judge decision as presented. Seconded by Bob Sinclair. Tim Kaldenberg-yea, Stephanie Dykshorn-yea, Bob Sinclair-yea, Harold Hommes-yea, Rebecca Guinn-yea, Amy Echard-yea, Howard Hill-yea, Lisa Gochenour-yea, and Ralph Lents-yea. Motion passes.*

**APPROVED AS PRESENTED**

**GENERAL DISCUSSION**

- Jerah Sheets provided upcoming meeting logistics and training options for new Commissioners.
- Jerah Sheets offered to the Commissioners during their personal time at the State Fair to stop by the DNR State Fair Building to see the activities the Department is providing to fairgoers.

Chairperson Lents adjourned the Environmental Protection Commission meeting at 12:25 p.m. on June 18, 2019.

## INTERNATIONAL INTEREST

### YOUTH AMBASSADORS PROGRAM



In FY 2019, IWE was asked by Georgetown University to organize and administer Iowa-based tours for a grant-funded *Youth Ambassadors Program*. Environmental protection, youth leadership, civic engagement, social entrepreneurship and social-cultural programming were focus areas of the program. Twenty students between the ages of 15-18 from Panama, Guatemala, Costa Rica and Dominican Republic and their chaperones participated in this opportunity.

Ambassadors toured the Waste Commission of Scott County's Recycling Center, Davenport Water Pollution Control Plant and Compost Facility and Nahant Marsh - the largest Urban wetland on the upper Mississippi River. Ambassadors also participated in a hands-on sculpture building activity. The sculpture was built from recycled materials and is now on display at Scott Community College.

For additional information on the Youth Ambassador Program visit: <http://cied.georgetown.edu/programs/youth-ambassadors/>

## SPECIAL PROJECT EXAMPLE

### REUSAPALOOZA - IOWA STATE FAIR



FY 2019 marked Reusapalooza's sixth year at the DNR Courtyard at the Iowa State Fairgrounds. IWE organizes and administers the annual event and ensures that all projects offer a hands-on learning opportunity for all skill levels.

At Reusapalooza, fairgoers (adults and children alike) are offered the opportunity to create upcycled, take-home projects and view onsite demonstrations of items that can be created from upcycled materials. Three projects and one demonstration are selected annually. Project selections are based on IWE interactions during the previous year and by evaluating available materials that might potentially be used in executing Reusapalooza.

This year, with the assistance of other IWE Area Resource Specialists, DNR staff members and volunteers, 306 projects were completed onsite.

Iowa Public Television (IPTV) Covered this year's event. You may access that broadcast at: <http://www.iptv.org/fair/story/31320/fair-2018-friday-august-17>

**IOWA**   
**WASTE**   
**EXCHANGE**  
[www.iowaDNR.gov/FABA](http://www.iowaDNR.gov/FABA)

***A Free, Confidential and  
Non-Regulatory Program of the  
Iowa Department of Natural Resources***

**Administered by  
Region XII Council of Governments**



**Contact  
Bill Blum, Program Planner, FABA  
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(515) 725-8376**

Since 1990, the Iowa Waste Exchange (IWE) has assisted approximately **60,000** clients and has diverted over **4 million tons** of material from Iowa landfills saving Iowans over **\$110 million**

# FY 2019 YEAR IN REVIEW

**119,474**



**TONS OF WASTE  
DIVERTED**

Includes 62,000 tons of  
Organic Waste  
A DNR Targeted Material

**4,219,836**



**DOLLARS SAVED  
BY IOWANS**

Includes  
\$3,942,318 From Diversion  
\$277,517 Other Savings

**3,285**



**CLIENTS SERVED**

- Agricultural Pursuits
- Business/Industry
- Schools/Colleges
- Governmental Entities
- Municipalities
- Hospitals and Clinics
- Non Profits
- Private Citizens



**SERVICES PROVIDED**

- Identified Marketable Waste and Revenue Streams
- Administered Waste Sorts
- Located Markets for Value Added Byproducts
- Located Byproducts for Production
- Wrote/Reviewed Grants, Loans, SOPs, Hazardous and Non Hazardous Waste Management Plans
- Presented at Conferences, Workshops, Lunch and Learns and Other Public Speaking Events
- Authored Guest Articles
- Administered/Organized Special Projects and Collection Events

## SUCCESS STORIES



The City of Des Moines and Operation Downtown have established a recycling program aimed at creating a cleaner and greener Downtown Des Moines. Recycle DSM aligns with the City of Des Moines' comprehensive plan, PlanDSM, which calls for the reduction of solid waste headed to the landfill. The Iowa Department of Natural Resources' Iowa Waste Exchange (IWE) program has assisted with the pilot and the continued expansion of the program, which has included the Historic East Village, Western Gateway Park, Iowa Events Center and the Court Avenue Farmer's Market. IWE provides continual assistance in assessing and expanding the program.

According to Amy Lego, Executive Director for Operation Downtown, "The Iowa Waste Exchange, has been an incredible resource for Recycle DSM, Downtown Des Moines' public space recycling program. With her recycling expertise, our Area Resource Specialist has directed waste audits and generated results for our various recycling districts. The results from the audits and tracking have helped shape our education campaign and improve future (or expanded) recycling efforts. She has given us recycling contacts and program tips and even reviewed and edited a recycling grant application. Her enthusiasm and willingness to help has been a great asset to our staff and the Recycle DSM program."

Additional information on Operation Downtown and the RecycleDSM initiative can be found at: <http://www.operationdowntown.com>. Additional IWE success stories can be found at [www.iowadnr.gov/FABA](http://www.iowadnr.gov/FABA).

## NATIONAL REPLICABILITY



In FY 2019, IWE and DNR staff members were solicited by Recycle Colorado to provide technical assistance and guidance for a similar program they will be launching in FY 2020.



In FY 2019, IWE was contacted by Maryland Department of the Environment to obtain and duplicate a Waste Minimization Toolkit created by IWE for schools in Iowa. The Toolkit was developed as the result of a year-long School Waste Minimization pilot project. DNR and Iowa Department of Education partnered on the project.

You may access the toolkit at [www.iowadnr.gov](http://www.iowadnr.gov).

# Iowa Ambient Air Monitoring 2019 Network Plan

Air Quality Bureau  
Iowa Department of  
Natural Resources



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## **Introduction**

States and other agencies delegated to perform air monitoring under the Clean Air Act are required to examine their networks annually to verify that they meet federal requirements ([Appendix A](#)). These requirements<sup>1</sup> include the number and type of monitors operated and the frequency of sampling. Certain monitors in the network, known as State and Local Air Monitoring Stations (SLAMS), are required by federal regulations and discontinuing a SLAMS monitor requires concurrence from the Environmental Protection Agency (EPA) ([Appendix B](#)). Special Purpose Monitors (SPMs) provide important additional air quality information (such as background concentrations for permitting activities<sup>2,3</sup>), but changes to the SPM network do not require concurrence from EPA.

One of the requirements of the annual network plan is to provide specific information for monitors that produce data that may be compared with federal air standards. This information, along with information concerning various types of monitors operated in the Iowa air monitoring network, is contained in [Appendix C](#) and [Appendix D](#).

## **Ozone Monitoring Network Analysis**

EPA's population-based monitoring requirements for ozone are reproduced in [Appendix E](#). These requirements apply to metropolitan statistical areas (MSAs)—more recently denoted as core based statistical areas (CBSAs) by the Census Bureau—and depend on the population of the MSA ([Appendix F](#)) and the ozone levels monitored in or downwind of the MSA over the past three years ([Appendix G](#)). Based on this information, the minimum number of population-based SLAMS ozone monitoring sites is indicated below:

<b>MSA</b>	<b>Number of Monitoring Sites Required</b>
Omaha-Council Bluffs, NE-IA	2
Des Moines-West Des Moines, IA	2
Davenport-Moline-Rock Island, IA-IL	2
Cedar Rapids, IA	1
Waterloo-Cedar Falls, IA	1
Sioux City, IA-NE-SD	1

In Iowa, there is one SLAMS monitoring site for the Omaha-Council Bluffs MSA, two SLAMS monitoring sites for the Des Moines MSA, two SLAMS monitoring sites for the Davenport-

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<sup>1</sup> For the convenience of the reader, relevant CFR sections are included in the appendices of this document. The CFR is updated continuously, for the latest version of the CFR see: [CFR Title 40](#)

<sup>2</sup> For examples of the way monitoring data is used to develop background concentrations for permitting activities, see the discussions of PM<sub>2.5</sub>, NO<sub>2</sub> and SO<sub>2</sub> at: [Modeling Memos](#)

<sup>3</sup> The federal statute that requires baseline ambient air quality data in an area before initiating construction of a new "major source" of air pollution is a download here: [US Code 2010](#)

Moline-Rock Island MSA, one SLAMS monitoring site for the Cedar Rapids MSA, and one SLAMS monitoring site for the Waterloo-Cedar Falls MSA that fulfill the ozone monitoring requirements. The state of Iowa shares the responsibility for ozone monitoring in the Omaha-Council Bluffs MSA with Nebraska agencies, in the Sioux City MSA with South Dakota and Nebraska agencies, and in the Davenport-Moline-Rock Island MSA with Illinois agencies ([Appendix H](#)). Currently Nebraska agencies operate three SLAMS ozone sites in the Omaha, Nebraska MSA. Illinois agencies operate one SLAMS ozone site in Rock Island, Illinois which resides in the Davenport-Moline-Rock Island, IA-IL MSA. South Dakota operates one SLAMS site in the Sioux City, IA-NE-SD MSA.

In addition to population-based requirements, each state is required to operate one multi-pollutant NCore site. Year-round ozone monitoring is required at an NCore site. Iowa monitors for ozone at its NCore site in Davenport to meet this requirement.

EPA's AQI reporting requirements for ozone are reproduced in [Appendix I](#). AQI reporting for ozone is required in MSAs with populations over 350,000. MSAs in this category include Omaha-Council Bluffs, Des Moines-West Des Moines, and Davenport-Moline-Rock Island ([Appendix F](#)). All Iowa ozone monitoring data, including data from each of these MSAs, is uploaded to EPA's [AirNow](#)<sup>4</sup> Real-Time Reporting System and included in the national ozone and AQI maps. Ozone concentration data and AQI values are publically available on EPA's [AirData](#)<sup>5</sup> web site a few days after the data is uploaded to EPA. The DNR regularly updates a list of dates when monitoring sites record AQIs greater than 100 on its [web site](#)<sup>6</sup>. AQI and real-time information is also available on the [Polk County](#)<sup>7</sup>, [Linn County](#)<sup>8</sup> and [State Hygienic Laboratory](#)<sup>9</sup> websites.

There are no EPA requirements for collocated ozone monitoring. EPA's collocated monitoring requirements are indicated in [Appendix J](#). A comparison of Iowa's monitoring network to these requirements is located in [Appendix K](#).

The total number of ozone monitoring sites needed to support the basic monitoring objectives of public data reporting, air quality mapping, compliance, and understanding ozone related atmospheric processes includes more sites than these minimum numbers. All Iowa ozone monitors are listed in [Appendix D](#) and displayed in [Appendix L](#).

Changes to the ozone network that are expected to occur before the submission of the next network plan are indicated in [Appendix M](#). Iowa's current ozone monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

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<sup>4</sup> [EPA AirNow](#)

<sup>5</sup> [EPA Air Data](#)

<sup>6</sup> [Iowa DNR Air Monitoring](#)

<sup>7</sup> [Polk County Air Monitoring](#)

<sup>8</sup> [Linn County Air Monitoring](#)

<sup>9</sup> [SHL Real Time Data](#)

## ***PM<sub>2.5</sub> Monitoring Network Analysis***

EPA's population-based monitoring requirements for PM<sub>2.5</sub> are contained in 40 CFR Part 58, Appendix D (reproduced in [Appendix E](#)). These requirements apply to metropolitan statistical areas (MSAs) and depend on the population of the MSA ([Appendix F](#)) and the PM<sub>2.5</sub> levels monitored in the MSA over the past three years ([Appendix N](#)). Based on this information, the minimum number of required population-based SLAMS PM<sub>2.5</sub> monitoring sites is indicated below:

<b>MSA</b>	<b>Number of Monitoring Sites Required</b>
Omaha-Council Bluffs, NE-IA	1
Des Moines-West Des Moines, IA	1
Davenport-Moline-Rock Island, IA-IL	0
Cedar Rapids, IA	0
Waterloo-Cedar Falls, IA	0
Iowa City, IA	0

Iowa operates filter samplers at SLAMS PM<sub>2.5</sub> monitoring sites in Des Moines (one site), Davenport (two sites), Cedar Rapids (one site), and Waterloo (one site). Iowa shares the responsibility for PM<sub>2.5</sub> monitoring in the Omaha-Council Bluffs MSA with Nebraska agencies, and in the Davenport-Moline-Rock Island MSA with Illinois agencies ([Appendix H](#)). Currently, four SLAMS PM<sub>2.5</sub> monitoring sites are operated by Nebraska in the Omaha-Council Bluffs MSA; and one SLAMS PM<sub>2.5</sub> monitoring site is operated by Illinois in the Davenport-Moline-Rock Island MSA ([Appendix H](#)).

In addition to population-based minimum requirements, 40 CFR Part 58 also specifies that each state operate at least one PM<sub>2.5</sub> monitoring site to measure background concentrations, and at least one site to measure regional transport of PM<sub>2.5</sub>. A SLAMS background monitoring site is located at Emmetsburg in northwest Iowa, and SLAMS transport monitoring sites are located at Lake Sugema in Southeast Iowa and Viking Lake in Southwest Iowa.

40 CFR Part 58 indicates that population-oriented monitoring sites near industrial sources produce data that may be compared to the 24-hour PM<sub>2.5</sub> NAAQS, but not to the annual PM<sub>2.5</sub> NAAQS. The PM<sub>2.5</sub> monitoring sites near Chancy Park in Clinton, and Musser Park in Muscatine, are adjacent to industrial sources and are not comparable to the annual PM<sub>2.5</sub> NAAQS.

EPA's AQI reporting requirements for PM<sub>2.5</sub> are reproduced in [Appendix I](#). AQI reporting is required in MSAs with required PM<sub>2.5</sub> monitors and populations over 350,000. MSA's in this population category include Omaha-Council Bluffs, Des Moines-West Des Moines, and Davenport-Moline-Rock Island ([Appendix F](#)). Nebraska provides real-time PM<sub>2.5</sub> data for the Omaha-Council Bluffs MSA; Iowa provides real-time PM<sub>2.5</sub> monitoring data for the Des Moines-West Des Moines, and Davenport-Moline-Rock Island MSAs. This real-time data is uploaded to



EPA's [AirNow](#)<sup>10</sup> Real-Time Reporting System and included in the national AQI maps. PM<sub>2.5</sub> data and AQI values from continuous and filter samplers are publically available on EPA's [AirData](#)<sup>11</sup> web site a few days after the data is uploaded to EPA. The DNR regularly updates a list of dates when monitoring sites record AQIs greater than 100 on its [web site](#)<sup>12</sup>. AQI and real-time information is also available on the [Polk County](#)<sup>13</sup>, [Linn County](#)<sup>14</sup> and [State Hygienic Laboratory](#)<sup>15</sup> websites.

EPA's collocated monitoring requirements for PM<sub>2.5</sub> are indicated in [Appendix J](#). Iowa's monitoring network meets these requirements ([Appendix K](#)).

40 CFR Part 58 specifies that the minimum frequency for manual PM<sub>2.5</sub> sampling at required SLAMS sites is one sample every three days. Required SLAMS sites with a 24-hour design value within 5% of the 24-hour PM<sub>2.5</sub> NAAQS (34 µg/m<sup>3</sup> to 36 µg/m<sup>3</sup>) must assume a daily sampling schedule until the design value no longer meets the criteria for three consecutive years. The maximum 24-hour PM<sub>2.5</sub> design values recorded in the Iowa Network for the past three years are: 2016 (i.e. 2014-2016): 26 µg/m<sup>3</sup>, 2017: 23 µg/m<sup>3</sup>, and 2018: 21 µg/m<sup>3</sup>.<sup>16</sup> No PM<sub>2.5</sub> samplers recorded design values from 34-36 µg/m<sup>3</sup> for the past three years.

In addition to these PM<sub>2.5</sub> monitoring requirements, EPA requires that each state operate at least one multi-pollutant NCore site ([Appendix O](#)). Continuous and filter-based PM<sub>2.5</sub> monitors as well as PM<sub>2.5</sub> chemical speciation samplers are required at each NCore site. Iowa operates these three types of PM<sub>2.5</sub> samplers at its NCore site in Davenport to meet this requirement.

EPA also requires CBSAs with a population of 1,000,000 or more persons to collocate at least one PM<sub>2.5</sub> monitor at a near-road NO<sub>2</sub> station ([Appendix P](#)). Iowa does not contain or share any MSAs with populations this large, so additional near-road monitors are not required.

The total number of PM<sub>2.5</sub> monitoring sites needed to support the basic monitoring objectives of public data reporting, air quality mapping, compliance, and understanding PM<sub>2.5</sub>-related atmospheric processes includes more sites than these minimum numbers. Iowa's complete PM<sub>2.5</sub> monitoring network is listed in [Appendix D](#) and displayed in [Appendix L](#). Note: The map of speciation sites in [Appendix L](#) includes sites where the full suite of PM<sub>2.5</sub> speciation measurements (metals, ions and carbon) are performed on filter samples. Changes to monitors in the SLAMS and SPM PM<sub>2.5</sub> network that are expected to occur before the submission of the next network plan are detailed in [Appendix M](#). Iowa's current PM<sub>2.5</sub> monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

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<sup>10</sup> [EPA AirNow](#)

<sup>11</sup> [EPA Air Data](#)

<sup>12</sup> [Iowa DNR Air Monitoring](#)

<sup>13</sup> [Polk County Air Monitoring](#)

<sup>14</sup> [Linn County Air Monitoring](#)

<sup>15</sup> [SHL Real Time Data](#)

<sup>16</sup> See: Iowa PM<sub>2.5</sub> Design Values (PDF Downloads) for [2016](#), [2017](#), and [2018](#)

## ***PM<sub>10</sub> Monitoring Network Analysis***

EPA's population-based monitoring requirements for PM<sub>10</sub> are reproduced in [Appendix E](#). These requirements apply to metropolitan statistical areas (MSAs) and depend on the population of the MSA ([Appendix F](#)) and PM<sub>10</sub> levels in the MSA ([Appendix Q](#)). Based on this information, the minimum numbers of population-based SLAMS PM<sub>10</sub> monitoring sites is indicated below:

<b>MSA</b>	<b>Number of Monitoring Sites Required</b>
Omaha-Council Bluffs, NE-IA	2-4
Des Moines-West Des Moines, IA	1-2
Davenport-Moline-Rock Island, IA-IL	0-1
Cedar Rapids, IA	0-1
Sioux City, IA-NE-SD	0-1
Waterloo-Cedar Falls, IA	0
Iowa City, IA	0

Iowa operates one SLAMS PM<sub>10</sub> monitoring site in the Des Moines-West Des Moines MSA, two in the Davenport-Moline-Rock Island MSA, and one in the Cedar Rapids MSA. Iowa shares the responsibility for PM<sub>10</sub> monitoring in the Omaha-Council Bluffs MSA with Nebraska agencies, and in the Davenport-Moline-Rock Island MSA with Illinois agencies ([Appendix H](#)). Currently four SLAMS PM<sub>10</sub> sites are operated by Nebraska in the Omaha MSA, and no SLAMS PM<sub>10</sub> monitors are operated by Illinois in the Davenport-Moline-Rock Island MSA.

In addition to population-oriented PM<sub>10</sub> monitoring requirements, EPA requires that each State operate at least one multi-pollutant NCore site ([Appendix O](#)). PM<sub>10</sub> samplers are required at each NCore site. Iowa operates a PM<sub>10</sub> sampler at its NCore site in Davenport to meet this requirement.

EPA's AQI reporting requirements for PM<sub>10</sub> are reproduced in [Appendix I](#). AQI reporting is required in MSAs with required PM<sub>10</sub> monitors and populations over 350,000. MSA's in this category include Omaha-Council Bluffs, Des Moines-West Des Moines, and Davenport-Moline-Rock Island ([Appendix F](#)). Nebraska provides real-time PM<sub>10</sub> data for the Omaha-Council Bluffs MSA. Iowa has only one site that produces real-time PM<sub>10</sub> monitoring data. It is located near Buffalo inside the Davenport-Moline-Rock Island MSA. A graph of the real-time data from this site is publically available on the [SHL website](#)<sup>17</sup>. The AQI associated with PM<sub>10</sub> data from all filter samplers, including data from monitoring sites in each of the three MSA's, is publically available on EPA's [AirData](#)<sup>18</sup> web site a few days after the data is uploaded to EPA. The DNR regularly updates a list of dates when monitoring sites recorded AQIs greater than 100 on its [web site](#)<sup>19</sup>.

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<sup>17</sup> [SHL Real Time Data](#)

<sup>18</sup> [EPA Air Data](#)

<sup>19</sup> [Iowa DNR Air Monitoring](#)

EPA's collocated monitoring requirements for PM<sub>10</sub> are indicated in [Appendix J](#). Iowa's monitoring network meets these requirements ([Appendix K](#)).

Iowa's complete PM<sub>10</sub> monitoring network is listed in [Appendix D](#) and displayed in [Appendix L](#). Changes to monitors in the SLAMS and SPM PM<sub>10</sub> network that are expected to occur before the submission of the next network plan are detailed in [Appendix M](#). Iowa's current PM<sub>10</sub> monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

## ***Sulfur Dioxide Monitoring Network Analysis***

Federal requirements for SO<sub>2</sub> monitoring are reproduced in [Appendix R](#) and [Appendix S](#). These rules require monitors in populated areas with high SO<sub>2</sub> emissions as well as characterizing the SO<sub>2</sub> levels around large sources (>2,000 tons per year) with either monitoring or modeling data.

To implement the populated area requirements EPA uses the population weighted emissions index (PWEI) to determine if SO<sub>2</sub> monitoring is required in an MSA. The PWEI is calculated by multiplying the population of the MSA by the total tons of SO<sub>2</sub> emissions in the MSA and dividing by 1,000,000. The PWEI for Iowa Metropolitan Statistical Areas is computed in [Appendix T](#). Based on this information, the minimum number of SLAMS SO<sub>2</sub> monitoring sites for Iowa MSAs where monitoring is required are indicated below:

<b>MSA</b>	<b>Number of Monitoring Sites Required</b>
Omaha-Council Bluffs, NE-IA	1

Nebraska's NCORE site (AQS ID 310550019) is located in Omaha and the required SO<sub>2</sub> monitor at this location fulfills this PWEI requirement.

After a new NAAQS is promulgated, states are required to designate the attainment status of the counties of their state relative to the new NAAQS. In the case of the 1 hour SO<sub>2</sub> NAAQS finalized on 6/22/2010, the size of the national SO<sub>2</sub> monitoring network was deemed too small to establish whether or not ambient SO<sub>2</sub> levels near large SO<sub>2</sub> emitters would meet the new more stringent 1 hour standard. On 8/21/2015, EPA finalized a rule (known as the Data Requirements Rule or "DRR") to clarify states responsibilities in establishing the NAAQS attainment near large SO<sub>2</sub> emitters ([Appendix S](#)). As defined in this rule, a large SO<sub>2</sub> emitter is defined as one that emits more than 2,000 tons per year (tpy) of SO<sub>2</sub>. Under the provisions of the DRR, these large sources must either take permit limits to reduce their emissions below the 2,000 tpy threshold, or establish the attainment status near the source by performing ambient air monitoring or dispersion modeling.

According to deadlines of the DRR, the State was required to send its list of facilities that emit over 2,000 tpy to EPA by January 15, 2016 and indicate whether monitoring, modeling or

emissions limits will be used to comply with the rule by July 1, 2016. Monitoring required under the rule needed to be initiated by January 1, 2017. Emissions limits reducing facility emissions below the 2,000 tpy threshold needed to be in place by January 13, 2017. Dispersion modeling required under the rule needed to be submitted to EPA by January 13, 2017.

DNR sent its list of affected facilities to EPA on December 15, 2015, and indicated its choice of compliance method for each affected facility in a letter to EPA on June 20, 2016.<sup>20</sup> No Iowa facilities opted to use monitoring to comply with the DRR. In the Omaha-Council Bluffs MSA, there was a facility subject to the DRR on the Nebraska side that opted for monitoring. The Nebraska DEQ /Douglas County Health Department sited a monitor to establish the attainment status near this facility (OPPD North Omaha Power station), and began operation of a SLAMs SO<sub>2</sub> site (AQS ID 310550057) near the facility in 2017. The Iowa DNR<sup>21</sup> and EPA<sup>22</sup> exchanged technical analyses, and EPA posted designations under the DRR rule in December 2017.<sup>23</sup>

The DRR also requires annual documentation of the SO<sub>2</sub> emissions of each affected facility in cases where modeling of actual emissions served as the basis for designating that area to be in attainment with the NAAQS. These annual requirements are fulfilled in a reports posted to the DNR's [Air Quality Implementation Plans](#) website, in the "Designation Recommendations" section, under the "2010 SO<sub>2</sub> (Includes Muscatine 1-hour SO<sub>2</sub> Nonattainment Area)" subsection.<sup>24</sup>

In addition to the PWEI-based and large source monitoring requirements, sulfur dioxide is included in the suite of pollutants to be monitored at EPA National Core (NCore) monitoring sites. Iowa operates a sulfur dioxide analyzer at its NCore site in Davenport to meet this requirement.

EPA's AQI reporting requirements for SO<sub>2</sub> are reproduced in [Appendix I](#). AQI reporting is required in MSAs with required SO<sub>2</sub> monitors and populations over 350,000. MSAs in this population category include Omaha-Council Bluffs, Des Moines-West Des Moines, and Davenport-Moline-Rock Island ([Appendix F](#)). As indicated above, there are requirements for SO<sub>2</sub> monitors in Omaha and Davenport, but not in Des Moines. Nebraska provides real-time SO<sub>2</sub> data for the Omaha-Council Bluffs MSA; Iowa provides real-time SO<sub>2</sub> monitoring data for the Davenport-Moline-Rock Island MSA. This real-time data is uploaded to EPA's [AirNow](#)<sup>25</sup> Real-Time Reporting System. SO<sub>2</sub> concentration data and AQI values are publically available on EPA's [AirData](#)<sup>26</sup> web site a few days after the data is uploaded to EPA. The DNR regularly updates a

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<sup>20</sup> [Iowa Source Characterization Download PDF](#)

<sup>21</sup> [Iowa Technical Support Download PDF](#)

<sup>22</sup> [EPA Round 3 Designations Download PDF](#)

<sup>23</sup> [EPA Final SO<sub>2</sub> Designations Download PDF](#)

<sup>24</sup> [DNR Air Quality Implementation Plans](#)

<sup>25</sup> [EPA AirNow](#)

<sup>26</sup> [EPA Air Data](#)

list of dates when monitoring sites recorded AQIs greater than 100 on its [web site](#)<sup>27</sup>. AQI and real-time information is also available on the [Polk County](#)<sup>28</sup>, [Linn County](#)<sup>29</sup> and [State Hygienic Laboratory](#)<sup>30</sup> websites.

There are no EPA requirements for collocated SO<sub>2</sub> monitoring. EPA's collocated monitoring requirements are indicated in [Appendix J](#). A comparison of Iowa's monitoring network to these requirements is located in [Appendix K](#).

Existing SO<sub>2</sub> monitors are listed in [Appendix D](#) and displayed in [Appendix L](#). There are no planned reductions to the SLAMS monitoring network for sulfur dioxide scheduled before submission of the next network plan. Changes to SPM monitors in the SO<sub>2</sub> network that are anticipated before the submission of the next network plan are indicated in [Appendix M](#). Iowa's current SO<sub>2</sub> monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

## ***Nitrogen Dioxide Monitoring Network Analysis***

On January 22, 2010, the U.S. Environmental Protection Agency revised the nitrogen dioxide (NO<sub>2</sub>) NAAQS. The new NAAQS included population-based monitoring requirements and traffic-based (near-road) monitoring requirements.

EPA's population-based NO<sub>2</sub> monitoring requirements are reproduced in [Appendix E](#). EPA requires one monitor in any CBSA with a population of more than 1 million in order to measure community-wide concentrations. Iowa does not contain or share any MSAs with populations this large and these monitors are not required.

EPA's updated near-road based NO<sub>2</sub> monitoring requirements are reproduced in [Appendix P](#). There are no near-road monitors required in Iowa based on the updated federal requirements. At NCore sites, EPA requires NO<sub>y</sub> instead of NO<sub>2</sub> monitoring in order to quantify more of the oxidation products of NO. These additional oxidation products are relevant to secondary formation of ozone and PM<sub>2.5</sub>.

There are currently no minimum federal requirements for NO<sub>2</sub> monitors applicable to Iowa, and there are no monitors designated as SLAMS monitors in the Iowa network. SPM NO<sub>2</sub> monitors are operated to provide a general knowledge of pollutant levels and to support permitting activities.

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<sup>27</sup> [Iowa DNR Air Monitoring](#)

<sup>28</sup> [Polk County Air Monitoring](#)

<sup>29</sup> [Linn County Air Monitoring](#)

<sup>30</sup> [SHL Real Time Data](#)

EPA's AQI reporting requirements for NO<sub>2</sub> are reproduced in [Appendix I](#). As indicated above, Iowa does not contain or share any MSAs that require NO<sub>2</sub> monitoring. AQI reporting is required in MSAs with required NO<sub>2</sub> monitors and populations over 350,000. Iowa provides real-time NO<sub>2</sub> monitoring data for the Des Moines-West Des Moines MSA and at a background site near Lake Sugema in the southeast corner of the state. This real-time data is uploaded to EPA's [AirNow](#)<sup>31</sup> Real-Time Reporting System. NO<sub>2</sub> concentration data and the AQI are publicly available on EPA's [AirData](#)<sup>32</sup> web site a few days after the data is uploaded to EPA. The DNR regularly updates a list of dates and locations of recorded AQIs greater than 100 on its [web site](#)<sup>33</sup>. AQI information is also available on the [Polk County](#)<sup>34</sup>, [Linn County](#)<sup>35</sup> and [State Hygienic Laboratory](#)<sup>36</sup> websites.

There are no EPA requirements for collocated NO<sub>2</sub> monitoring. EPA's collocated monitoring requirements are indicated in [Appendix J](#). A comparison of Iowa's monitoring network to these requirements is located in [Appendix K](#).

NO<sub>2</sub> monitors are listed in [Appendix D](#) and displayed in [Appendix L](#). Changes to SPM monitors that are anticipated before the submission of the next network plan are indicated in [Appendix M](#). Iowa's current NO<sub>2</sub> monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

## ***Carbon Monoxide Monitoring Network Analysis***

EPA requires that each State operate at least one multi-pollutant NCore site ([Appendix O](#)). Carbon monoxide monitoring is required at each NCore site. Iowa operates a carbon monoxide monitor at its NCore site in Davenport to meet this requirement.

EPA also requires CBSA's with a population of 1,000,000 or more persons to collocate at least one CO monitor at a near-road NO<sub>2</sub> station ([Appendix P](#)). Iowa does not contain or share any MSAs with populations this large, so these near-road CO monitors are not required.

EPA's AQI reporting requirements for CO are reproduced in [Appendix I](#). AQI reporting is required in MSAs with required CO monitors and populations over 350,000. MSAs in this population category include Omaha-Council Bluffs, Des Moines-West Des Moines, and Davenport-Moline-Rock Island ([Appendix F](#)). Nebraska provides real-time CO data for the Omaha-Council Bluffs MSA; Iowa provides real-time CO monitoring data for the Des Moines-West Des Moines, and Davenport-Moline-Rock Island MSAs. This real-time data is uploaded to

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<sup>31</sup> [EPA AirNow](#)

<sup>32</sup> [EPA Air Data](#)

<sup>33</sup> [Iowa DNR Air Monitoring](#)

<sup>34</sup> [Polk County Air Monitoring](#)

<sup>35</sup> [Linn County Air Monitoring](#)

<sup>36</sup> [SHL Real Time Data](#)

EPA's [AirNow](#)<sup>37</sup> Real-Time Reporting System. CO data and the AQI are publically available on EPA's [AirData](#)<sup>38</sup> web site a few days after the data is uploaded to EPA. The DNR regularly updates a list of dates when monitoring sites recorded AQIs greater than 100 on its [web site](#)<sup>39</sup>. AQI information is also available on the [Polk County](#)<sup>40</sup>, [Linn County](#)<sup>41</sup> and [State Hygienic Laboratory](#)<sup>42</sup> websites.

There are no EPA requirements for collocated CO monitoring. EPA's collocated monitoring requirements are indicated in [Appendix J](#). A comparison of Iowa's monitoring network to these requirements is located in [Appendix K](#).

Iowa's carbon monoxide monitors are listed in [Appendix D](#) and displayed in [Appendix L](#). There are no planned reductions to the SLAMS monitoring network for carbon monoxide scheduled before submission of the next network plan. Changes to SPM monitors in the CO network that are anticipated before the submission of the next network plan are indicated in [Appendix M](#). Iowa's current carbon monoxide monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

## ***Toxics Monitoring Network Analysis***

There are no federal requirements for minimum numbers of air toxics sites contained in 40 CFR Part 58.

Iowa currently operates five SPM air toxics sites. Details concerning Iowa's air toxics network are contained in [Appendix D](#) and displayed in [Appendix L](#). Changes to SPM monitors in the toxics network that are anticipated before the submission of the next network plan are indicated in [Appendix M](#).

## ***NCore Monitoring Network Analysis***

Requirements for a multi-pollutant "NCore" site are contained in 40 CFR Part 58, and reproduced in [Appendix O](#). The Department operates an NCore site at Jefferson School in Davenport (AQS ID 191630015) to meet this requirement.

## ***Lead Monitoring Network Analysis***

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<sup>37</sup> [EPA AirNow](#)

<sup>38</sup> [EPA Air Data](#)

<sup>39</sup> [Iowa DNR Air Monitoring](#)

<sup>40</sup> [Polk County Air Monitoring](#)

<sup>41</sup> [Linn County Air Monitoring](#)

<sup>42</sup> [SHL Real Time Data](#)

EPA requires source-oriented SLAMS lead monitoring near industries that emit over 0.5 tons per year (tpy) of lead. The rule allows for a waiver of monitoring requirements if air dispersion modeling predicts ambient air concentrations less than half the NAAQS. These waivers must be renewed as an element of each State's five-year network assessment. Current federal lead monitoring rules are reproduced in [Appendix U](#).

According to the Department's latest (2017 NEI) emissions estimates ([Appendix V](#)), there are no facilities in Iowa with lead emissions of 0.5 tpy or greater.

Historically the lead emissions from MidAmerican Energy Company - Walter Scott Jr Energy Center have been close to the 0.5 tpy threshold. Based on dispersion modeling results, EPA granted a waiver of monitoring requirements for this facility in Iowa's 2012 Network Plan and in its 2015 5-Year Network Assessment<sup>43</sup>. The most recent 2017 emissions estimate for the facility is 0.324 tpy ([Appendix V](#)), so the waiver of monitoring requirements is no longer needed.

The Department sited a SLAMS lead monitoring site in Council Bluffs near Griffin Pipe in 2009. The site recorded levels over the National Ambient Air Quality Standard (NAAQS) for lead in 2010 and 2012. The area around Griffin Pipe was declared a non-attainment area by EPA late in 2011.<sup>44</sup> The Griffin Pipe Plant was closed indefinitely in May of 2014, after acquisition of Griffin Pipe by American Pipe.<sup>45</sup> The DNR submitted a State Implementation Plan (SIP) in January 2015 that provides for ongoing attainment of the lead NAAQS by establishing federally enforceable permit limits at Griffin Pipe (should it reopen<sup>46</sup>) and a nearby facility, Alter Metal Recycling.<sup>47</sup> The most recent lead data from the site indicates attainment with the NAAQS for the 2016-2018 period, with a monitored level for the period that is about 53% of the NAAQS. EPA redesignated the area as attainment on 10/4/2018.<sup>48</sup>

EPA's collocated monitoring requirements for lead are indicated in [Appendix J](#). Iowa's monitoring network meets these requirements ([Appendix K](#)).

The location of Iowa's lead monitor is listed in [Appendix D](#) and displayed in [Appendix L](#). There are no planned reductions to the SLAMS monitoring network for lead scheduled before submission of the next network plan. Iowa's current lead monitoring network meets federal requirements and will continue to meet the requirements after the changes described in [Appendix M](#) occur.

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<sup>43</sup> [Iowa DNR Air Monitoring](#)

<sup>44</sup> [Federal Register Lead Designations](#)

<sup>45</sup> [Foundry Magazine Article Griffin Pipe](#)

<sup>46</sup> [NonPareil Article 1/30/2016](#)

<sup>47</sup> [Iowa Lead SIP Download PDF](#)

<sup>48</sup> [EPA Iowa SIP Status](#)



## **Appendix A: Federal Requirements for Annual Network Plans and Completion**

### **40 CFR Part 58, § 58.10 Annual monitoring network plan and periodic network assessment.**

(a)(1) Beginning July 1, 2007, the state, or where applicable local, agency shall submit to the Regional Administrator an annual monitoring network plan which shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations. The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement. The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments.

(2) Any annual monitoring network plan that proposes network modifications (including new or discontinued monitoring sites, new determinations that data are not of sufficient quality to be compared to the NAAQS, and changes in identification of monitors as suitable or not suitable for comparison against the annual PM<sub>2.5</sub> NAAQS) to SLAMS networks is subject to the approval of the EPA Regional Administrator, who shall approve or disapprove the plan within 120 days of submission of a complete plan to the EPA.

(3) The plan for establishing required NCore multipollutant stations shall be submitted to the Administrator not later than July 1, 2009. The plan shall provide for all required stations to be operational by January 1, 2011.

(4) A plan for establishing source-oriented Pb monitoring sites in accordance with the requirements of appendix D to this part for Pb sources emitting 1.0 tpy or greater shall be submitted to the EPA Regional Administrator no later than July 1, 2009, as part of the annual network plan required in paragraph (a)(1) of this section. The plan shall provide for the required source-oriented Pb monitoring sites for Pb sources emitting 1.0 tpy or greater to be operational by January 1, 2010. A plan for establishing source-oriented Pb monitoring sites in accordance with the requirements of appendix D to this part for Pb sources emitting equal to or greater than 0.50 tpy but less than 1.0 tpy shall be submitted to the EPA Regional Administrator no later than July 1, 2011. The plan shall provide for the required source-oriented Pb monitoring sites for Pb sources emitting equal to or greater than 0.50 tpy but less than 1.0 tpy to be operational by December 27, 2011.

(5)(i) A plan for establishing or identifying an area-wide NO<sub>2</sub> monitor, in accordance with the requirements of Appendix D, section 4.3.3 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2012. The plan shall provide for these required monitors to be operational by January 1, 2013.

(ii) A plan for establishing or identifying any NO<sub>2</sub> monitor intended to characterize vulnerable and susceptible populations, as required in Appendix D, section 4.3.4 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2012. The plan shall provide for these required monitors to be operational by January 1, 2013.

(iii) A plan for establishing a single near-road NO<sub>2</sub> monitor in CBSAs having 1,000,000 or more persons, in accordance with the requirements of Appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2013. The plan shall provide for these required monitors to be operational by January 1, 2014.

(iv) A plan for establishing a second near-road NO<sub>2</sub> monitor in any CBSA with a population of 2,500,000 persons or more, or a second monitor in any CBSA with a population of 1,000,000 or more persons that has one or more roadway segments with 250,000 or greater AADT counts, in accordance with the requirements of appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2014. The plan shall provide for these required monitors to be operational by January 1, 2015.

(6) A plan for establishing SO<sub>2</sub> monitoring sites in accordance with the requirements of appendix D to this part shall be submitted to the EPA Regional Administrator by July 1, 2011 as part of the annual network plan required in paragraph (a) (1). The plan shall provide for all required SO<sub>2</sub> monitoring sites to be operational by January 1, 2013.

(7) A plan for establishing CO monitoring sites in accordance with the requirements of appendix D to this part shall be submitted to the EPA Regional Administrator. Plans for required CO monitors shall be submitted at least six months prior to the date such monitors must be established as required by section 58.13.

(8)(i) A plan for establishing near-road PM<sub>2.5</sub> monitoring sites in CBSAs having 2.5 million or more persons, in accordance with the requirements of appendix D to this part, shall be submitted as part of the annual monitoring network plan to the EPA Regional Administrator by July 1, 2014. The plan shall provide for these required monitoring stations to be operational by January 1, 2015.

(ii) A plan for establishing near-road PM<sub>2.5</sub> monitoring sites in CBSAs having 1 million or more persons, but less than 2.5 million persons, in accordance with the requirements of appendix D to this part, shall be submitted as part of the annual monitoring network plan to the EPA Regional Administrator by July 1, 2016. The plan shall provide for these required monitoring stations to be operational by January 1, 2017.

(9) The annual monitoring network plan shall provide for the required O<sub>3</sub> sites to be operating on the first day of the applicable required O<sub>3</sub> monitoring season in effect on January 1, 2017 as listed in Table D-3 of appendix D of this part.

(10) A plan for making Photochemical Assessment Monitoring Stations (PAMS) measurements, if applicable, in accordance with the requirements of appendix D paragraph 5(a) of this part shall be submitted to the EPA Regional Administrator no later than July 1, 2018. The plan shall provide for the required PAMS measurements to begin by June 1, 2019.

(11) An Enhanced Monitoring Plan for O<sub>3</sub>, if applicable, in accordance with the requirements of appendix D paragraph 5(h) of this part shall be submitted to the EPA Regional Administrator no later than October 1, 2019 or two years following the effective date of a designation to a classification of Moderate or above O<sub>3</sub> nonattainment, whichever is later.

(12) A detailed description of the PAMS network being operated in accordance with the requirements of appendix D to this part shall be submitted as part of the annual monitoring network plan for review by the EPA Administrator. The PAMS Network Description described in section 5 of appendix D may be used to meet this requirement.

(b) The annual monitoring network plan must contain the following information for each existing and proposed site:

(1) The AQS site identification number.

(2) The location, including street address and geographical coordinates.

(3) The sampling and analysis method(s) for each measured parameter.

(4) The operating schedules for each monitor.

(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.

(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.

(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual PM<sub>2.5</sub> NAAQS as described in §58.30.

(8) The MSA, CBSA, CSA or other area represented by the monitor.

(9) The designation of any Pb monitors as either source-oriented or non-source-oriented according to Appendix D to 40 CFR part 58.

(10) Any source-oriented monitors for which a waiver has been requested or granted by the EPA Regional Administrator as allowed for under paragraph 4.5(a)(ii) of Appendix D to 40 CFR part 58.

(11) Any source-oriented or non-source-oriented site for which a waiver has been requested or granted by the EPA Regional Administrator for the use of Pb-PM<sub>10</sub> monitoring in lieu of Pb-TSP monitoring as allowed for under paragraph 2.10 of Appendix C to 40 CFR part 58.

(12) The identification of required NO<sub>2</sub> monitors as near-road, area-wide, or vulnerable and susceptible population monitors in accordance with Appendix D, section 4.3 of this part.

(13) The identification of any PM<sub>2.5</sub> FEMs and/or ARMs used in the monitoring agency's network where the data are not of sufficient quality such that data are not to be compared to the NAAQS. For required SLAMS where the agency identifies that the PM<sub>2.5</sub> Class III FEM or ARM does not produce data of sufficient quality for comparison to the NAAQS, the monitoring agency must

ensure that an operating FRM or filter-based FEM meeting the sample frequency requirements described in §58.12 or other Class III PM<sub>2.5</sub> FEM or ARM with data of sufficient quality is operating and reporting data to meet the network design criteria described in appendix D to this part.

(c) The annual monitoring network plan must document how state and local agencies provide for the review of changes to a PM<sub>2.5</sub> monitoring network that impact the location of a violating PM<sub>2.5</sub> monitor. The affected state or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

(d) The state, or where applicable local, agency shall perform and submit to the EPA Regional Administrator an assessment of the air quality surveillance system every 5 years to determine, at a minimum, if the network meets the monitoring objectives defined in appendix D to this part, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for incorporation into the ambient air monitoring network. The network assessment must consider the ability of existing and proposed sites to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma), and, for any sites that are being proposed for discontinuance, the effect on data users other than the agency itself, such as nearby states and tribes or health effects studies. The state, or where applicable local, agency must submit a copy of this 5-year assessment, along with a revised annual network plan, to the Regional Administrator. The assessments are due every five years beginning July 1, 2010.

(e) All proposed additions and discontinuations of SLAMS monitors in annual monitoring network plans and periodic network assessments are subject to approval according to §58.14.

[71 FR 61298, Oct. 17, 2006, as amended at 72 FR 32210, June 12, 2007; 73 FR 67059, Nov. 12, 2008; 73 FR 77517, Dec. 19, 2008; 75 FR 6534, Feb. 9, 2010; 75 FR 35601, June 22, 2010; 75 FR 81137, Dec. 27, 2010; 76 FR 54341, Aug. 31, 2011; 78 FR 16188, Mar. 14, 2013; 78 FR 3282, Jan. 15, 2013; 80 FR 65466, Oct. 26, 2015; 81 FR 17279, Mar. 28, 2016; 81 FR 96388, Dec. 30, 2016]

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#### **§58.11 Network technical requirements.**

(a)(1) State and local governments shall follow the applicable quality assurance criteria contained in appendix A to this part when operating the SLAMS networks.

(2) Beginning January 1, 2009, State and local governments shall follow the quality assurance criteria contained in appendix A to this part that apply to SPM sites when operating any SPM site which uses a FRM, FEM, or ARM and meets the requirements of appendix E to this part, unless the Regional Administrator approves an alternative to the requirements of appendix A with respect to such SPM sites because meeting those requirements would be physically and/or financially impractical due to physical conditions at the monitoring site and the requirements are not essential to achieving the intended data objectives of the SPM site. Alternatives to the requirements of appendix A may be approved for an SPM site as part of the approval of the annual monitoring plan, or separately.

(3) The owner or operator of an existing or a proposed source shall follow the quality assurance criteria in appendix B to this part that apply to PSD monitoring when operating a PSD site.

(b) State and local governments must follow the criteria in appendix C to this part to determine acceptable monitoring methods or instruments for use in SLAMS networks. Appendix C criteria are optional at SPM stations.

(c) State and local governments must follow the network design criteria contained in appendix D to this part in designing and maintaining the SLAMS stations. The final network design and all changes in design are subject to approval of the Regional Administrator. NCore and STN network design and changes are also subject to approval of the Administrator. Changes in SPM stations do not require approvals, but a change in the designation of a monitoring site from SLAMS to SPM requires approval of the Regional Administrator.

(d) State and local governments must follow the criteria contained in appendix E to this part for siting monitor inlets, paths or probes at SLAMS stations. Appendix E adherence is optional for SPM stations.

(e) State and local governments must assess data from Class III PM<sub>2.5</sub> FEM and ARM monitors operated within their network using the performance criteria described in table C-4 to subpart C of part 53 of this chapter, for cases where the data are identified as not of sufficient comparability to a collocated FRM, and the monitoring agency requests that the FEM or ARM data should not be

used in comparison to the NAAQS. These assessments are required in the monitoring agency's annual monitoring network plan described in §58.10(b) for cases where the FEM or ARM is identified as not of sufficient comparability to a collocated FRM. For these collocated PM<sub>2.5</sub> monitors the performance criteria apply with the following additional provisions:

- (1) The acceptable concentration range (R<sub>j</sub>), µg/m<sup>3</sup> may include values down to 0 µg/m<sup>3</sup>.
- (2) The minimum number of test sites shall be at least one; however, the number of test sites will generally include all locations within an agency's network with collocated FRMs and FEMs or ARMs.
- (3) The minimum number of methods shall include at least one FRM and at least one FEM or ARM.
- (4) Since multiple FRMs and FEMs may not be present at each site; the precision statistic requirement does not apply, even if precision data are available.
- (5) All seasons must be covered with no more than thirty-six consecutive months of data in total aggregated together.
- (6) The key statistical metric to include in an assessment is the bias (both additive and multiplicative) of the PM<sub>2.5</sub> continuous FEM(s) compared to a collocated FRM(s). Correlation is required to be reported in the assessment, but failure to meet the correlation criteria, by itself, is not cause to exclude data from a continuous FEM monitor.

[71 FR 61298, Oct. 17, 2006, as amended at 78 FR 3282, Jan. 15, 2013; 80 FR 65466, Oct. 26, 2015; 81 FR 17279, Mar. 28, 2016]

#### **40 CFR Part 58, § 58.13 Monitoring network completion.**

- (a) The network of NCore multipollutant sites must be physically established no later than January 1, 2011, and at that time, operating under all of the requirements of this part, including the requirements of appendices A, C, D, E, and G to this part. NCore sites required to conduct Pb monitoring as required under 40 CFR part 58 appendix D paragraph 3(b), or approved alternative non-source-oriented Pb monitoring sites, shall begin Pb monitoring in accordance with all of the requirements of this part, including the requirements of appendices A, C, D, E, and G to this part no later than December 27, 2011.
- (b) Notwithstanding specific dates included in this part, beginning January 1, 2008, when existing networks are not in conformance with the minimum number of required monitors specified in this part, additional required monitors must be identified in the next applicable annual monitoring network plan, with monitoring operation beginning by January 1 of the following year. To allow sufficient time to prepare and comment on Annual Monitoring Network Plans, only monitoring requirements effective 120 days prior to the required submission date of the plan (i.e., 120 days prior to July 1 of each year) shall be included in that year's annual monitoring network plan.
- (c) The NO<sub>2</sub> monitors required under Appendix D, section 4.3 of this part must be physically established and operating under all of the requirements of this part, including the requirements of appendices A, C, D, and E to this part, no later than:
  - (1) January 1, 2013, for area-wide NO<sub>2</sub> monitors required in Appendix D, section 4.3.3;
  - (2) January 1, 2013, for NO<sub>2</sub> monitors intended to characterize vulnerable and susceptible populations that are required in Appendix D, section 4.3.4;
  - (3) January 1, 2014, for an initial near-road NO<sub>2</sub> monitor in CBSAs having 1,000,000 million or more persons that is required in Appendix D, section 4.3.2;
  - (4) January 1, 2015, for a second near-road NO<sub>2</sub> monitor in CBSAs that have a population of 2,500,000 or more persons or a second monitor in any CBSA with a population of 1,000,000 or more persons that has one or more roadway segments with 250,000 or greater AADT counts that is required in appendix D, section 4.3.2.
- (d) The network of SO<sub>2</sub> monitors must be physically established no later than January 1, 2013, and at that time, must be operating under all of the requirements of this part, including the requirements of appendices A, C, D, and E to this part.

(e) The CO monitors required under Appendix D, section 4.2 of this part must be physically established and operating under all of the requirements of this part, including the requirements of appendices A, C, D, and E to this part, no later than:

(1) January 1, 2015 for CO monitors in CBSAs having 2.5 million persons or more; or

(2) January 1, 2017 for other CO monitors.

(f) PM2.5 monitors required in near-road environments as described in appendix D to this part, must be physically established and operating under all of the requirements of this part, including the requirements of appendices A, C, D, and E to this part, no later than:

(1) January 1, 2015 for PM2.5 monitors in CBSAs having 2.5 million persons or more; or

(2) January 1, 2017 for PM2.5 monitors in CBSAs having 1 million or more, but less than 2.5 million persons.

(g) The O3 monitors required under appendix D, section 4.1 of this part must operate on the first day of the applicable required O3 monitoring season in effect January 1, 2017.

(h) The Photochemical Assessment Monitoring sites required under 40 CFR part 58 Appendix D, section 5(a) must be physically established and operating under all of the requirements of this part, including the requirements of appendix A, C, D, and E of this part, no later than June 1, 2019.

[71 FR 61298, Oct. 17, 2006, as amended at 73 FR 67059, Nov. 12, 2008; 75 FR 6534, Feb. 9, 2010; 75 FR 35601, June 22, 2010; 75 FR 81137, Dec. 27, 2010; 76 FR 54341, Aug. 31, 2011; 78 FR 16188, Mar. 14, 2013; 78 FR 3283, Jan. 15, 2013; 80 FR 65466, Oct. 26, 2015; 81 FR 96388, Dec. 30, 2016]

## **Appendix B: SLAMS Network Modification**

### **40 CFR Part 58, § 58.14 System modification.**

(a) The state, or where appropriate local, agency shall develop a network modification plan and schedule to modify the ambient air quality monitoring network that addresses the findings of the network assessment required every 5 years by §58.10(d). The network modification plan shall be submitted as part of the Annual Monitoring Network Plan that is due no later than the year after submittal of the network assessment.

(b) Nothing in this section shall preclude the State, or where appropriate local, agency from making modifications to the SLAMS network for reasons other than those resulting from the periodic network assessments. These modifications must be reviewed and approved by the Regional Administrator. Each monitoring network may make or be required to make changes between the 5-year assessment periods, including for example, site relocations or the addition of PAMS networks in bumped-up ozone nonattainment areas. These modifications must address changes invoked by a new census and changes due to changing air quality levels. The State, or where appropriate local, agency shall provide written communication describing the network changes to the Regional Administrator for review and approval as these changes are identified.

(c) State, or where appropriate, local agency requests for SLAMS monitor station discontinuation, subject to the review of the Regional Administrator, will be approved if any of the following criteria are met and if the requirements of appendix D to this part, if any, continue to be met. Other requests for discontinuation may also be approved on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of a NAAQS and if the requirements of appendix D to this part, if any, continue to be met.

(1) Any PM<sub>2.5</sub>, O<sub>3</sub>, CO, PM<sub>10</sub>, SO<sub>2</sub>, Pb, or NO<sub>2</sub> SLAMS monitor which has shown attainment during the previous five years, that has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past, and which is not specifically required by an attainment plan or maintenance plan. In a nonattainment or maintenance area, if the most recent attainment or maintenance plan adopted by the State and approved by EPA contains a contingency measure to be triggered by an air quality concentration and the monitor to be discontinued is the only SLAMS monitor operating in the nonattainment or maintenance area, the monitor may not be discontinued.

(2) Any SLAMS monitor for CO, PM<sub>10</sub>, SO<sub>2</sub>, or NO<sub>2</sub> which has consistently measured lower concentrations than another monitor for the same pollutant in the same county (or portion of a county within a distinct attainment area, nonattainment area, or maintenance area, as applicable) during the previous five years, and which is not specifically required by an attainment plan or maintenance plan, if control measures scheduled to be implemented or discontinued during the next five years would apply to the areas around both monitors and have similar effects on measured concentrations, such that the retained monitor would remain the higher reading of the two monitors being compared.

(3) For any pollutant, any SLAMS monitor in a county (or portion of a county within a distinct attainment, nonattainment, or maintenance area, as applicable) provided the monitor has not measured violations of the applicable NAAQS in the previous five years, and the approved SIP provides for a specific, reproducible approach to representing the air quality of the affected county in the absence of actual monitoring data.

(4) A PM<sub>2.5</sub> SLAMS monitor which EPA has determined cannot be compared to the relevant NAAQS because of the siting of the monitor, in accordance with §58.30.

(5) A SLAMS monitor that is designed to measure concentrations upwind of an urban area for purposes of characterizing transport into the area and that has not recorded violations of the relevant NAAQS in the previous five years, if discontinuation of the monitor is tied to start-up of another station also characterizing transport.

(6) A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site.

## Appendix C: 2018 Iowa Ambient Air Monitoring Sites

City	Site	Address	County	MSA	Latitude	Longitude	AQS Site ID	Responsible Agency
Buffalo	Linwood Mining	11100 110th Ave.	Scott	DMR	41.46724	-90.68845	191630017	DNR
Cedar Rapids	Public Health	500 11th St. NW	Linn	CDR	41.97677	-91.68766	191130040	Linn Local Prog.
Cedar Rapids	Tait Cummins Park (Prairie Creek)	3000 C Street SW	Linn	CDR	41.94867	-91.63954	191130041	Linn Local Prog.
Clinton	Chancy Park	23rd & Camanche	Clinton	-	41.82328	-90.21198	190450019	DNR
Clinton	Rainbow Park	Roosevelt St.	Clinton	-	41.875	-90.17757	190450021	DNR
Clive	Indian Hills Jr. High School	9401 Indian Hills	Polk	DSM	41.60352	-93.7479	191532510	Polk Local Prog.
Coggon	Coggon Elementary School	408 E Linn St.	Linn	CDR	42.28056	-91.52694	191130033	Linn Local Prog.
Council Bluffs	Franklin School	3130 C Ave.	Pottawattamie	OMC	41.26417	-95.89612	191550009	DNR
Council Bluffs	Griffin Pipe	8th Avenue and 27th St	Pottawattamie	OMC	41.25425	-95.88725	191550011	DNR
Davenport	Jefferson School	10th St. & Vine St.	Scott	DMR	41.53001	-90.58761	191630015	DNR
Davenport	Hayes School	622 South Concord St	Scott	DMR	41.51208	-90.62404	191630020	DNR
Des Moines	Health Dept.	1907 Carpenter	Polk	DSM	41.60318	-93.6433	191530030	Polk Local Prog.
Emmetsburg	Iowa Lakes College	Iowa Lakes Community College	Palo Alto	-	43.1237	-94.69352	191471002	DNR
Iowa City	Hoover School	2200 East Court	Johnson	IAC	41.65723	-91.50348	191032001	DNR
Keokuk	Fire Station	111S. 13th St.	Lee	-	40.40096	-91.39101	191110008	DNR
Mason City	Holcim Cement	17th St. & Washington St.	Cerro Gordo	-	43.16944	-93.20243	190330018	DNR
Muscatine	Greenwood Cemetery	Fletcher St. & Kimble St.	Muscatine	-	41.41943	-91.07098	191390016	DNR
Muscatine	Muscatine HS, East Campus Roof	1409 Wisconsin	Muscatine	-	41.40095	-91.06781	191390015	DNR
Muscatine	Muscatine HS, East Campus Trailer	1409 Wisconsin	Muscatine	-	41.40145	-91.06845	191390019	DNR
Muscatine	Musser Park	Oregon St. & Earl Ave.	Muscatine	-	41.4069	-91.0616	191390020	DNR
Pisgah	Forestry Office	206 Polk St.	Harrison	OMC	41.83226	-95.92819	190850007	DNR
Sheldahl	Southern Crossroads	15795 NW 58 <sup>th</sup> St	Polk	DSM	41.84943	-93.69762	191531579	Polk Local Prog.
Sioux City	Irving School	901 Floyd Blvd.	Woodbury	SXC	42.499844	-96.394755	191930021	DNR
Waterloo	Water Tower	Vine St. & Steely	Black Hawk	WTL	42.50154	-92.31602	190130009	DNR
Waverly	Waverly Airport	Waverly Airport	Bremer	WTL	42.74117	-92.51285	190170011	DNR
-	Lake Sugema	24430 Lacey Trl, Keosauqua	Van Buren	-	40.69508	-92.00632	191770006	DNR
-	Scott County Park	Scott County Park	Scott	DMR	41.69917	-90.52194	191630014	DNR
-	Viking Lake State Park	2780 Viking Lake Road	Montgomery	-	40.96911	-95.04495	191370002	DNR

**Site Table Definitions:**

**City** – the city closest to the monitor location.

**Site** – the name of the monitoring site.

**Address** – an intersection or street address close to the monitoring site.

**County** – the county where the monitoring site resides.

**MSA** – Metropolitan Statistical Area. Iowa’s Metropolitan Statistical Areas (MSAs) according to the U.S. Census Bureau:

U.S. Census Geographic area	Abbreviation
Omaha-Council Bluffs, NE-IA	OMC
Des Moines-West Des Moines, IA	DSM
Davenport-Moline-Rock Island, IA-IL	DMR
Cedar Rapids, IA	CDR
Waterloo-Cedar Falls, IA	WTL
Sioux City, IA-NE-SD	SXC
Iowa City, IA	IAC
Dubuque, IA	-
Ames, IA	-

Source for Counties: [US Census MSA Delineation](#)

Maximum ozone concentrations are typically measured 10-30 miles downwind of an MSA. The site intended to record the maximum ozone concentration resulting from a given MSA may be located outside the MSA boundaries. Sites intended to measure background levels of pollutants for an MSA may also be located upwind and outside of that particular MSA.

**Latitude** – the latitude of a monitoring site, given in decimal degrees using the WGS (World Geodetic System) 84 datum.

**Longitude** – the longitude of a monitoring site, given in decimal degrees using the WGS (World Geodetic System) 84 datum.

**AQS Site ID** – The identifier of a monitoring site used in the US EPA Air Quality System (AQS) database. It has the form XX-XXX-XXXX where the first two digits specify the state (19 for Iowa), the next set of three digits the county, and the last four digits the site.

**Responsible Agency** – The agency responsible for performing ambient air monitoring at a monitoring site. The Polk County Local Program operates sites in or near Polk County. The Linn County Local Program operates sites in or near Linn County. The Department of Natural Resources (DNR) contracts with the State Hygienic Laboratory at the University of Iowa (SHL) to operate monitoring sites not operated by the Polk or Linn County Local Programs.



## Appendix D: 2018 Iowa Ambient Air Monitors

Site Name	PQAO	Pollutant	POC	Monitor Type	Design Value 16-18	High Design Value?	Sampling Method	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose
Buffalo, Linwood Mining	SHL	PM10	2	SLAMS			Low Volume FRM	Gravimetric	Daily	Source Oriented	Middle	Yes	Yes	NAAQS Compliance
Buffalo, Linwood Mining	SHL	PM10	3	SLAMS			Beta Attenuation	Met One BAM	Continuous	Source Oriented	Middle	No	Yes	QA NAAQS Compliance
Buffalo, Linwood Mining	SHL	PM10	5	SLAMS			Beta Attenuation	Met One BAM	Continuous	Source Oriented	Middle	No	Yes	Real-Time AQI Reporting
Cedar Rapids, Public Health	Linn	Ozone	1	SPM	63	Yes	UV Absorption		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Cedar Rapids, Public Health	Linn	Ozone	2	SPM			UV Absorption		Continuous	Population Exposure	Neighborhood	No	Yes	QA Real-Time AQI Reporting*
Cedar Rapids, Public Health	Linn	PM10	1	SLAMS			Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Cedar Rapids, Public Health	Linn	PM10	2	SLAMS			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Cedar Rapids, Public Health	Linn	PM2.5	1	SLAMS	19/8.0	No	Low Volume FRM	Gravimetric	Daily	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Cedar Rapids, Public Health	Linn	PM2.5	2	SLAMS			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Cedar Rapids, Public Health	Linn	PM2.5	3	SPM			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	Yes	Real-Time AQI Reporting
Cedar Rapids, Public Health	Linn	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	Yes	QA Real-Time AQI Reporting
Cedar Rapids, Public Health	Linn	SO2	1	SPM			UV Fluorescent		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Cedar Rapids, Public Health	Linn	Toxics	16	SPM			Cartridge	TO-11A	1 in 12	Population Exposure	Neighborhood	No	na	
Cedar Rapids, Tait Cummins Park	Linn	SO2	1	SLAMS			UV Fluorescent		Continuous	Source Oriented	Middle	Yes	Yes	NAAQS Compliance
Clinton, Chancy Park	SHL	PM2.5	1	SPM	20/na	No	Low Volume FRM	Gravimetric	1 in 3	Source Oriented	Middle	24 Hour Only	Yes	NAAQS Compliance
Clinton, Chancy Park	SHL	PM2.5	3	SPM			Beta Attenuation	Met One BAM	Continuous	Source Oriented	Middle	No	No	
Clinton, Chancy Park	SHL	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	Source Oriented	Middle	No	No	
Clinton, Chancy Park	SHL	SO2	1	SPM			UV Fluorescent		Continuous	Source Oriented	Middle	Yes	Yes	NAAQS Compliance

Site Name	PQAO	Pollutant	POC	Monitor Type	Design Value 16-18	High Design Value?	Sampling Method	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose
Clinton, Chancy Park	SHL	Toxics	16	SPM			Cartridge	TO-11A	1 in 12	Population Exposure	Middle	No	na	
Clinton, Rainbow Park	SHL	Ozone	1	SLAMS	64	Yes	UV Absorption		Continuous	Population Exposure	Urban	Yes	Yes	NAAQS Compliance
Clinton, Rainbow Park	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Population Exposure	Urban	No	Yes	QA Real-Time AQI Reporting*
Clinton, Rainbow Park	SHL	PM2.5	1	SPM	19/7.7	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Clive, Indian Hills Jr. High School	Polk	PM2.5	1	SPM	18/7.4	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Coggon, Elementary School	Linn	Ozone	1	SLAMS	65	Yes	UV Absorption		Continuous	Max Ozone Concentration	Urban	Yes	Yes	NAAQS Compliance
Coggon, Elementary School	Linn	Ozone	2	SLAMS			UV Absorption		Continuous	Max Ozone Concentration	Urban	No	Yes	QA Real-Time AQI Reporting*
Council Bluffs, Franklin School	SHL	PM10	1	SPM			Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Council Bluffs, Franklin School	SHL	PM2.5	1	SPM	19/7.9	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Council Bluffs, Franklin School	SHL	PM2.5	2	SPM			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Council Bluffs, Griffin Pipe	SHL	Lead	1	SLAMS			High Volume FRM	ICP-MS	1 in 6	Source Oriented	Middle	Yes	Yes	NAAQS Compliance
Council Bluffs, Griffin Pipe	SHL	Lead	3	SLAMS			High Volume FRM	ICP-MS	1 in 6	Source Oriented	Middle	No	Yes	QA NAAQS Compliance*
Davenport, Hayes Sch.	SHL	PM2.5	1	SLAMS	21/8.4	No	Low Volume FRM	Gravimetric	Daily	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Davenport, Jefferson Sch.	SHL	CO	1	NCORE			Non-Dispersive Infrared		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Davenport, Jefferson Sch.	SHL	CSN Speciation	5	NCORE			CSN Sampler	CSN Protocol	1 in 3	Population Exposure	Neighborhood	No	No	
Davenport, Jefferson Sch.	SHL	NOy	2	NCORE			Chemiluminescence		Continuous	Population Exposure	Neighborhood	No	na	
Davenport, Jefferson Sch.	SHL	Ozone	1	NCORE	63	Yes	UV Absorption		Continuous	Population Exposure	Urban	Yes	Yes	NAAQS Compliance
Davenport, Jefferson Sch.	SHL	Ozone	2	NCORE			UV Absorption		Continuous	Population Exposure	Urban	No	Yes	QA Real-Time AQI Reporting*
Davenport, Jefferson Sch.	SHL	PM10	1	NCORE			Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Davenport, Jefferson Sch.	SHL	PM10	2	NCORE			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*

Site Name	PQAO	Pollutant	POC	Monitor Type	Design Value 16-18	High Design Value?	Sampling Method	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose
Davenport, Jefferson Sch.	SHL	PM2.5	1	NCORE	19/7.9	No	Low Volume FRM	Gravimetric	Daily	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Davenport, Jefferson Sch.	SHL	PM2.5	2	NCORE			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Davenport, Jefferson Sch.	SHL	PM2.5	3	NCORE			Light Scattering	T640	Continuous	Population Exposure	Neighborhood	No	Yes	Real-Time AQI Reporting
Davenport, Jefferson Sch.	SHL	PM2.5	4	NCORE			Light Scattering	T640	Continuous	Population Exposure	Neighborhood	No	Yes	QA Real-Time AQI Reporting
Davenport, Jefferson Sch.	SHL	SO2	1	NCORE			UV Fluorescent		Continuous	Population Exposure	Urban	Yes	Yes	NAAQS Compliance
Davenport, Jefferson Sch.	SHL	Toxics	16	SPM			Cartridge	TO-11A	1 in 12	Population Exposure	Neighborhood	No	na	
Des Moines, Health Dept.	Polk	CO	1	SPM			Non-Dispersive Infrared		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Des Moines, Health Dept.	Polk	NO2	1	SPM			Chemiluminescence		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Des Moines, Health Dept.	Polk	Ozone	1	SLAMS	61	Yes	UV Absorption		Continuous	Population Exposure	Urban	Yes	Yes	NAAQS Compliance
Des Moines, Health Dept.	Polk	Ozone	2	SLAMS			UV Absorption		Continuous	Population Exposure	Urban	No	Yes	QA Real-Time AQI Reporting*
Des Moines, Health Dept.	Polk	PM10	1	SLAMS			Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Des Moines, Health Dept.	Polk	PM10	2	SLAMS			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Des Moines, Health Dept.	Polk	PM2.5	1	SLAMS	17/7.3	No	Low Volume FRM	Gravimetric	Daily	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Des Moines, Health Dept.	Polk	PM2.5	2	SLAMS			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Des Moines, Health Dept.	Polk	PM2.5	3	SLAMS			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	Yes	Yes	Real-Time AQI Reporting*
Des Moines, Health Dept.	Polk	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	Yes	QA Real-Time AQI Reporting
Des Moines, Health Dept.	Polk	Toxics	16	SPM			Cartridge	TO-11A	1 in 12	Population Exposure	Neighborhood	No	na	
Emmetsburg, Iowa Lakes Coll.	SHL	Ozone	1	SLAMS	62	Yes	UV Absorption		Continuous	Regional Transport	Regional	Yes	Yes	NAAQS Compliance
Emmetsburg, Iowa Lakes Coll.	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Regional Transport	Regional	No	Yes	QA Real-Time AQI Reporting*

Site Name	PQAO	Pollutant	POC	Monitor Type	Design Value 16-18	High Design Value?	Sampling Method	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose
Emmetsburg, Iowa Lakes Coll.	SHL	PM2.5	1	SLAMS	17/6.7	No	Low Volume FRM	Gravimetric	1 in 3	General / Background	Regional	Yes	Yes	NAAQS Compliance
Emmetsburg, Iowa Lakes Coll.	SHL	PM2.5	3	SPM			Beta Attenuation	Met One BAM	Continuous	General / Background	Regional	No	No	
Emmetsburg, Iowa Lakes Coll.	SHL	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	General / Background	Regional	No	No	
Iowa City, Hoover Sch.	SHL	PM2.5	1	SPM	18/7.6	No	Low Volume FRM	Gravimetric	Daily	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Iowa City, Hoover Sch.	SHL	PM2.5	3	SPM			Light Scattering	T640	Continuous	Population Exposure	Neighborhood	No	Yes	Real-Time AQI Reporting
Iowa City, Hoover Sch.	SHL	PM2.5	4	SPM			Light Scattering	T640	Continuous	Population Exposure	Neighborhood	No	Yes	QA Real-Time AQI Reporting
Keokuk, Fire Station	SHL	PM2.5	1	SPM	18/8.5	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Lake Sugema	SHL	IMPROVE Speciation	1	IMPROVE			IMPROVE Sampler	IMPROVE Protocol	1 in 3	General / Background	Regional	No	na	
Lake Sugema	SHL	NO2	1	SPM			Chemiluminescence		Continuous	General / Background	Regional	Yes	Yes	NAAQS Compliance
Lake Sugema	SHL	Ozone	1	SLAMS	61	Yes	UV Absorption		Continuous	Regional Transport	Regional	Yes	Yes	NAAQS Compliance
Lake Sugema	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Regional Transport	Regional	No	Yes	QA Real-Time AQI Reporting*
Lake Sugema	SHL	PM10	1	SPM			Low Volume FRM	Gravimetric	1 in 3	General / Background	Regional	Yes	Yes	NAAQS Compliance
Lake Sugema	SHL	PM2.5	1	SLAMS	17/6.9	No	Low Volume FRM	Gravimetric	1 in 3	Regional Transport	Regional	Yes	Yes	NAAQS Compliance
Lake Sugema	SHL	PM2.5	3	SPM			Beta Attenuation	Met One BAM	Continuous	Regional Transport	Regional	No	No	
Lake Sugema	SHL	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	Regional Transport	Regional	No	No	
Lake Sugema	SHL	SO2	1	SPM			UV Fluorescent		Continuous	General / Background	Regional	Yes	Yes	NAAQS Compliance
Mason City, Holcim Cement	SHL	PM10	1	SLAMS			Low Volume FRM	Gravimetric	1 in 3	Source Oriented	Middle	Yes	Yes	NAAQS Compliance
Mason City, Holcim Cement	SHL	PM10	2	SLAMS			Low Volume FRM	Gravimetric	1 in 6	Source Oriented	Middle	No	Yes	QA NAAQS Compliance*
Muscatine HS, East Campus Roof	SHL	PM10	1	SPM			Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Muscatine HS, East Campus Roof	SHL	PM2.5	1	SLAMS	21 / 8.3	No	Low Volume FRM	Gravimetric	Daily	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance

Site Name	PQAO	Pollutant	POC	Monitor Type	Design Value 16-18	High Design Value?	Sampling Method	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose
Muscatine HS, East Campus Roof	SHL	PM2.5	2	SLAMS			Low Volume FRM	Gravimetric	1 in 6	Population Exposure	Neighborhood	No	Yes	QA NAAQS Compliance*
Muscatine HS, East Campus Trailer	SHL	PM2.5	3	SPM			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	No	
Muscatine HS, East Campus Trailer	SHL	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	No	
Muscatine HS, East Campus Trailer	SHL	SO2	1	SPM			UV Fluorescent		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Muscatine, Greenwood Cemetery	SHL	PM2.5	1	SPM	17/7.5	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Muscatine, Greenwood Cemetery	SHL	SO2	1	SPM			UV Fluorescent		Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Muscatine, Musser Park	SHL	PM2.5	1	SPM	19/na	No	Low Volume FRM	Gravimetric	1 in 3	Source Oriented	Middle	24 Hour Only	Yes	NAAQS Compliance
Muscatine, Musser Park	SHL	SO2	1	SLAMS			UV Fluorescent		Continuous	Source Oriented	Middle	Yes	Yes	NAAQS Compliance
Muscatine, Musser Park	SHL	Toxics	16	SPM			Cartridge	TO-11A	1 in 12	Source Oriented	Middle	No	na	
Pisgah, Forestry Office	SHL	Ozone	1	SLAMS	64	Yes	UV Absorption		Continuous	Max Ozone Concentration	Urban	Yes	Yes	NAAQS Compliance
Pisgah, Forestry Office	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Max Ozone Concentration	Urban	No	Yes	QA Real-Time AQI Reporting*
Scott County Park	SHL	Ozone	1	SLAMS	65	Yes	UV Absorption		Continuous	Max Ozone Concentration	Urban	Yes	Yes	NAAQS Compliance
Scott County Park	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Max Ozone Concentration	Urban	No	Yes	QA Real-Time AQI Reporting*
Sheldahl, Southern Crossroads	Polk	Ozone	1	SLAMS	61	Yes	UV Absorption		Continuous	Max Ozone Concentration	Urban	Yes	Yes	NAAQS Compliance
Sheldahl, Southern Crossroads	Polk	Ozone	2	SLAMS			UV Absorption		Continuous	Max Ozone Concentration	Urban	No	Yes	QA Real-Time AQI Reporting*
Sioux City, Irving School	SHL	PM2.5	1	SPM	18/7.7	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Viking Lake State Park	SHL	IMPROVE Speciation	1	IMPROVE			IMPROVE Sampler	IMPROVE Protocol	1 in 3	General / Background	Regional	No	na	
Viking Lake State Park	SHL	Ozone	1	SLAMS	61	Yes	UV Absorption		Continuous	Regional Transport	Regional	Yes	Yes	NAAQS Compliance

Site Name	PQAO	Pollutant	POC	Monitor Type	Design Value 16-18	High Design Value?	Sampling Method	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose
Viking Lake State Park	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Regional Transport	Regional	No	Yes	QA Real-Time AQI Reporting*
Viking Lake State Park	SHL	PM2.5	1	SLAMS	16 / 6.5	No	Low Volume FRM	Gravimetric	1 in 3	Regional Transport	Regional	Yes	Yes	NAAQS Compliance
Viking Lake State Park	SHL	PM2.5	3	SPM			Beta Attenuation	Met One BAM	Continuous	Regional Transport	Regional	No	No	
Viking Lake State Park	SHL	PM2.5	4	SPM			Beta Attenuation	Met One BAM	Continuous	Regional Transport	Regional	No	No	
Waterloo, Water Tower	SHL	PM2.5	1	SLAMS	20/7.8	No	Low Volume FRM	Gravimetric	1 in 3	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance
Waterloo, Water Tower	SHL	PM2.5	3	SLAMS			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	No	
Waterloo, Water Tower	SHL	PM2.5	4	SLAMS			Beta Attenuation	Met One BAM	Continuous	Population Exposure	Neighborhood	No	No	
Waverly Airport	SHL	Ozone	1	SLAMS	63	Yes	UV Absorption		Continuous	Population Exposure	Urban	Yes	Yes	NAAQS Compliance
Waverly Airport	SHL	Ozone	2	SLAMS			UV Absorption		Continuous	Population Exposure	Urban	No	Yes	QA Real-Time AQI Reporting*

## Monitor Table Definitions:

**Site Name** – a combination of the city and site name from the previous table

**Pollutant** – indicates the pollutant, or set of pollutants, measured by each monitor

- CO – carbon monoxide
- CSN Speciation – a speciation monitor and suite of lab analysis procedures developed by the CSN program to identify and quantify the chemical components of PM<sub>2.5</sub>
- IMPROVE Speciation – a speciation monitor and suite of lab analysis procedures developed by the IMPROVE program to identify and quantify the chemical components of PM<sub>2.5</sub> in order to establish changes in visibility
- Lead—lead (Pb)
- NO<sub>2</sub> – nitrogen dioxide
- NO<sub>y</sub> – the sum of all reactive oxides of nitrogen: NO, NO<sub>2</sub>, NO<sub>3</sub>, N<sub>2</sub>O<sub>5</sub>, HNO<sub>2</sub>, HNO<sub>3</sub>, PAN, organic nitrates and aerosol nitrates.
- Ozone – an unstable molecule consisting of three oxygen atoms
- PM<sub>10</sub> – particles with a diameter of 10 micrometers or less
- PM<sub>2.5</sub> – particles with a diameter of 2.5 micrometers or less, also known as “fine particles”.
- NO<sub>y</sub> is the sum of all reactive oxides of nitrogen (NO, NO<sub>2</sub>, NO<sub>3</sub>, N<sub>2</sub>O<sub>5</sub>, HNO<sub>2</sub>, HNO<sub>3</sub>, PAN, organic nitrates and aerosol nitrates) – sulfur dioxide
- Toxics – monitoring for a pollutant identified on EPA’s Urban Air Toxics list

**POC** – “Parameter Occurrence Code” an integer in the AQS database that labels monitors at a monitoring site. If there are multiple monitors for a given pollutant at a monitoring site, each monitor will have its own POC.

**Monitor Type** – This column indicates how the monitor is classified in the AQS database.

- IMPROVE – a speciation monitor developed by the IMPROVE program to identify and quantify the chemical components of PM<sub>2.5</sub>. An IMPROVE monitor is a type of special purpose monitor (SPM) – see below.
- NCore – monitors operated at a site which has been accepted into EPA’s national network of long term multi-pollutant sites.
- SLAMS – State and Local Air Monitoring Stations. SLAMS make up the ambient air quality monitoring sites that are primarily needed for NAAQS comparisons, but may serve other data purposes. SLAMS exclude special purpose monitor (SPM) stations and include NCore, and all other State or locally operated stations that have not been designated as SPM stations.
- SPM – means a monitor that is designated as a special purpose monitor in the monitoring network plan and in EPA’s AQS database. SPM monitors do not count when showing compliance with minimum SLAMS requirements for monitor numbers and siting, unless a SPM designation is required for documenting a NAAQS exclusion for a poorly performing FEM PM<sub>2.5</sub> monitor.

**Design Value** – A design value is a number computed from monitoring data (see 40 CFR Part 50, Appendix N) that is used for comparisons to the National Ambient Air Quality Standards (NAAQS). For PM<sub>2.5</sub> and ozone, the monitoring requirements depend on these design values. For PM<sub>2.5</sub>, there are

two design values—a 24 hour design value (in  $\mu\text{g}/\text{m}^3$ ) and an annual design value (also in  $\mu\text{g}/\text{m}^3$ ). For  $\text{PM}_{2.5}$  monitors in the table, the 24 hour design value is listed first and an annual design value is listed second, i.e. 27/10.3. For ozone, there is a single design value; the 8-hour design value (in ppb) is indicated in the table.

**High Design Value?** – A “Yes” in this column indicates that the design value is within 85% of the NAAQS. For  $\text{PM}_{2.5}$ , 24 hour design values of  $30 \mu\text{g}/\text{m}^3$  or greater are considered greater than or equal to 85% of the 24-hour NAAQS ( $35 \mu\text{g}/\text{m}^3$ ) and values of  $10.2 \mu\text{g}/\text{m}^3$  or greater are considered greater than or equal to the 85% of the annual NAAQS ( $12.0 \mu\text{g}/\text{m}^3$ ). For ozone, 8-hour design values of 60 ppb or greater are considered greater than or equal to 85% of the 8-hour NAAQS (70 ppb).

**Sampling Method** – Indicates how the sample is collected. This column also shows how the sample is analyzed, if it is analyzed on site at the time of collection.

- Beta Attenuation—a type of continuous  $\text{PM}_{2.5}$  monitor that reports data in real time. Continuous  $\text{PM}_{2.5}$  monitors typically have three components: a size selective inlet (cyclone) that knocks out all but the fine particles, a conditioning system that rapidly dries the fine particles, and a mass measurement system that determines the mass of the conditioned sample. One type of continuous  $\text{PM}_{2.5}$  monitor currently used in the Iowa Network is the BAM (BAM=Beta Attenuation Monitor). This monitor conditions particles using an inlet heater to reduce particle-bound water. Mass measurements are made by measuring the attenuation of beta particles caused by fine particles collected on a sampling tape during the sampling period.
- Cartridge – A 2,4-Dinitrophenylhydrazine (DNPH) cartridge is used to collect toxics that contain a carbonyl group.
- Chemiluminescence – When a nitric oxide (NO) molecule collides with an ozone molecule, a nitrogen dioxide ( $\text{NO}_2$ ) molecule and an oxygen ( $\text{O}_2$ ) molecule result. The  $\text{NO}_2$  molecule is in an excited state, and subsequently emits infrared light that can be measured by a photomultiplier tube.
- High Volume FRM – a sampler that utilizes a flow of  $\sim 80$  cubic meters per hour or about 80 times that of a low volume FRM.
- IMPROVE Sampler – See IMPROVE in the “Pollutant” section above.
- Light Scattering – a type of continuous PM sampler that utilizes scattered light to determine the number, diameter and concentration of particles in ambient air. These instruments typically condition the sample by lowering the relative humidity of the air stream (via a heater or Nafion dryer) to eliminate interferences due to particle bound water.
- Low Volume – a sampler that uses a flow of 16.67 liters per minute.
- Low Volume FRM – a sampler that uses a flow of 16.67 liters per minute, which has been designated as a Federal Reference Method.
- Non-Dispersive Infrared – Carbon Monoxide absorbs infrared radiation; this property is the basis of the analytical method used by continuous CO monitors to quantify CO concentrations.
- CSN Sampler – a speciation monitor to identify and quantify the chemical components of  $\text{PM}_{2.5}$  via CSN protocol.
- UV Absorption – Ozone absorbs ultraviolet light; this property is the basis of the analytical method used by continuous ozone monitors to quantify ozone concentrations.



- UV Fluorescent – When excited by ultraviolet light, SO<sub>2</sub> molecules emit light at a lower frequency that may be detected by a photomultiplier tube. This property is the basis for the analytical method used for continuous SO<sub>2</sub> gas analyzers.

**Analysis** – indicates the method of analysis that is done either in situ or in a lab environment.

- Gravimetric – A filter is weighed before and after collecting a particulate sample.
- ICP-MS – Inductively Coupled Plasma Mass Spectrometry is a highly sensitive analytical technique capable of determining a range of metals. The metal sample is atomized and ionized by argon plasma, and the ions are separated and quantified via a mass spectrometer.
- IMPROVE Protocol – This protocol uses a suite of analytical procedures (X-Ray Fluorescence, Ion Chromatography, and Thermal Optical Reflectance) to identify and quantify the components of PM<sub>2.5</sub>. See [IMPROVE](#) for further details.
- CSN Protocol – refers to EPA’s chemical speciation network protocol. This protocol utilizes X-Ray Fluorescence, Ion Chromatography, and Thermal Optical Reflectance to identify and quantify the components of PM<sub>2.5</sub>.
- Met One BAM—See Beta Attenuation above. This category includes Met One models 1020 and 1022. The 1020 measurement unit resides in an air conditioned shelter, while the 1022 measurement unit is outdoors. The 1022 reduces the chances of condensation in the inlet line of the sampler in humid weather.
- TO-11A – an EPA protocol in which carbonyl cartridge extracts are analyzed using High Performance Liquid Chromatography and an ultraviolet detector.
- T640 – A Teledyne T640 analyzer that uses scattered light to measure PM<sub>2.5</sub>.

**Operating Schedule** – Continuous monitors run constantly and measure hourly average concentrations in real time. Manual samplers, such as PM filter samplers or toxics samplers, collect a single 24-hour sample from midnight to midnight on a particular day, which is quantified later in an analytical laboratory. A fractional (e.g. 1/2, 1/3, 1/6, and 1/12) schedule for a manual samplers refers to collecting a sample every second, third, sixth, and twelfth day, respectively. Ozone monitors in Iowa (except in Polk County and at the NCore site) are operated only during ozone season (March to October) when higher temperatures favor ozone formation. Cartridges for toxic carbonyl compounds are normally collected every twelfth day, but the schedule is accelerated to 1/6 days during ozone season.

**Primary Monitoring Objective** – the primary reason a monitor is operated at a particular location.

- General Background – The objective is to establish the background levels of a pollutant.
- Max. Ozone Conc. – The objective is to record the maximum ozone concentration. Because ozone is a secondary pollutant, ozone concentrations are typically highest 10-30 miles downwind of an urban area.
- Population Exposure – The objective is to monitor the exposure of individuals in the area represented by the monitor.
- Regional Transport – The objective is to assess the extent to which pollutants are transported between two regions that are separated by tens to hundreds of kilometers.
- Source Oriented – The objective is to determine the impact of a nearby source.

**Spatial Scale** – The scale of representativeness is described in terms of the physical dimensions of the air parcel nearest to a monitoring site throughout which actual pollutant concentrations are reasonably similar. Monitors are classified according to the largest applicable scale below:

- Microscale - defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
- Middle scale - defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometer.
- Neighborhood scale - defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers range. The neighborhood and urban scales listed below have the potential to overlap in applications that concern secondarily formed or homogeneously distributed air pollutants.
- Urban scale - defines concentrations within an area of city-like dimensions, on the order of 4 to 50 kilometers. Within a city, the geographic placement of sources may result in there being no single site that can be said to represent air quality on an urban scale.
- Regional scale – usually defines a rural area of reasonably homogeneous geography without large sources, and extends from tens to hundreds of kilometers.

**NAAQS Comparable?** – This column shows whether the data from the monitor can be compared to the National Ambient Air Quality Standards (NAAQS). Entries under this column are Yes, No, and 24 Hour Only. For a monitor's data to be eligible for comparison against the NAAQS, the type of monitor used must be defined as a federal reference method or federal equivalent method by EPA.

EPA has designated the Met One BAM as a Federal Equivalent Method (FEM) for PM<sub>2.5</sub> when configured and operated as prescribed in the federal equivalence designation. Iowa operates several Met One BAM analyzers, but most are not configured in accordance with the designation, and the data cannot be compared with the NAAQS.

For PM<sub>2.5</sub>, there is both an annual and a 24-hour NAAQS. To be comparable to either PM<sub>2.5</sub> NAAQS a site must be population-oriented. In 40 CFR Part 58, EPA defines a population-oriented monitoring site as follows:

*Population-oriented monitoring (or sites) means residential areas, commercial areas, recreational areas, industrial areas where workers from more than one company are located and other areas where a substantial number of people may spend a significant fraction of their day.*

Following this definition, all PM<sub>2.5</sub> monitoring sites in Iowa are population-oriented.

In a populated area near an industrial source, monitoring data may only be comparable to the 24 hour PM<sub>2.5</sub> NAAQS. According to Subpart D of 40 CFR Part 58:

*PM<sub>2.5</sub> measurement data from monitors that are not representative of area-wide air quality but rather of relatively unique micro-scale, or localized hot spot, or unique middle-scale impact sites are not eligible for comparison to the annual PM<sub>2.5</sub> NAAQS. PM<sub>2.5</sub> measurement data from these monitors are eligible for comparison to the 24-hour PM<sub>2.5</sub> NAAQS. For example, if a micro- or middle-scale PM<sub>2.5</sub>*

*monitoring site is adjacent to a unique dominating local PM<sub>2.5</sub> source, then the PM<sub>2.5</sub> measurement data from such a site would only be eligible for comparison to the 24-hour PM<sub>2.5</sub> NAAQS.*

A “No” entry in the “NAAQS Comparable” column also includes situations where there is more than one monitor measuring the same pollutant at a particular site. The data from the secondary sampler(s) is not NAAQS Comparable in the sense that it is never used to determine NAAQS attainment unless the primary sampler is down or malfunctioning. In the event that the data from the primary sampler is missing, data from the secondary sampler(s) may be substituted for primary monitor data to determine NAAQS compliance.

A “No” entry in the “NAAQS Comparable” column may also designate the initial two year trial period where comparability of PM<sub>2.5</sub> continuous samplers in “FEM” configuration to the FRM method is yet to be determined. See [EPA’s Technical Note - PM<sub>2.5</sub> Continuous Monitoring Comparability Assessment](#), particularly row 1 of Table 2, quoted below:

“All PM<sub>2.5</sub> continuous FEMs are to use this parameter code [88101]. Data are eligible for use in NAAQS calculations, unless labeled as “SPM” and “non-regulatory” for first 24 months of operation.”

**FRM/FEM** – “Federal Reference Method/Federal Equivalent Method” EPA specifies that only these types of monitors or monitoring methods may be used to establish attainment with the NAAQS. The first method that EPA declares to have sufficient accuracy and repeatability for ambient measurements is the reference method. Once the reference method is defined, other methods or equipment may be used for NAAQS comparisons, provided the candidate method passes tests that demonstrate comparability to the reference method. A criteria pollutant monitor that is not a FRM/FEM may not be used for NAAQS comparisons, but may still be useful for other purposes, such as real time reporting.

**FRM/FEM Purpose** – When more than one FRM/FEM is operated at a monitoring site at the same time (i.e. multiple POCs for the same pollutant), there is the potential for ambiguity in the attainment status at a monitoring site. To avoid this ambiguity, we declare one of the monitors to be the NAAQS compliance (primary) monitor at the monitoring site and indicate the purpose for the other monitors at the site.

- NAAQS Compliance – denotes a monitor that is the primary monitor used to establish attainment with the NAAQS.
- QA NAAQS Compliance – denotes a monitor that is used to satisfy a federal requirement to provide quality assurance data for the primary NAAQS monitor. Addition of an asterisk, i.e. QA NAAQS Compliance\* means that data from this monitor may be substituted for the primary monitor data when the primary monitor data is missing.<sup>49, 50</sup>
- Real-time AQI Reporting – Denotes a monitor used for real-time reporting. Addition of an asterisk, i.e. Real-time AQI Reporting\* means that data from this monitor may be substituted for the primary monitor data when the primary monitor data is missing.

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<sup>49</sup> For substitution rules for PM<sub>2.5</sub>, Lead, and PM<sub>10</sub> see [EPA POC Technical Note Download PDF](#)

<sup>50</sup> For AQS Guidelines for Reporting Collocated PM<sub>2.5</sub> and Lead Data see [EPA Collocated Guidelines](#)

- QA Real-Time AQI Reporting – Denotes a monitor that is used to provide real-time QA of a continuous monitor used for real-time reporting. Addition of an asterisk, i.e. QA Real-time AQI Reporting\* means that data from this monitor may be substituted for the primary monitor data when the primary monitor data is missing.

## Appendix E: Population-Based Minimum Monitoring Requirements

### Ozone

40 CFR Part 58 Appendix D, Table D-2 specifies the minimum number of SLAMS (State and Local Air Monitoring Stations) ozone monitors required based on population and the most recent three years of monitoring data (design value).

MSA population <sup>1 2</sup>	Most recent 3-year design value concentrations $\geq 85\%$ of any O <sub>3</sub> NAAQS <sup>3</sup>	Most recent 3-year design value concentrations $< 85\%$ of any O <sub>3</sub> NAAQS <sup>3 4</sup>
>10 million	4	2
4-10 million	3	1
350,000-<4 million	2	1
50,000-<350,000 <sup>5</sup>	1	0

<sup>1</sup>Minimum monitoring requirements apply to the Metropolitan statistical area (MSA).

<sup>2</sup>Population based on latest available census figures.

<sup>3</sup>The ozone (O<sub>3</sub>) National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.

<sup>4</sup>These minimum monitoring requirements apply in the absence of a design value.

<sup>5</sup>Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

### PM<sub>2.5</sub>

40 CFR Part 58 Appendix D, Table D-5 specifies the minimum number of SLAMS PM<sub>2.5</sub> monitors required based on population and 3-year design values.

TABLE D-5 OF APPENDIX D TO PART 58—PM<sub>2.5</sub> MINIMUM MONITORING REQUIREMENTS

MSA population <sup>1 2</sup>	Most recent 3-year design value $\geq 85\%$ of any PM <sub>2.5</sub> NAAQS <sup>3</sup>	Most recent 3-year design value $< 85\%$ of any PM <sub>2.5</sub> NAAQS <sup>3 4</sup>
>1,000,000	3	2
500,000-1,000,000	2	1
50,000-<500,000 <sup>5</sup>	1	0

<sup>1</sup>Minimum monitoring requirements apply to the Metropolitan statistical area (MSA).

<sup>2</sup>Population based on latest available census figures.

<sup>3</sup>The PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.

<sup>4</sup>These minimum monitoring requirements apply in the absence of a design value.

<sup>5</sup>Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

## PM<sub>10</sub>

40 CFR Part 58 Appendix D, Table D-4 lists the minimum requirements for the number of PM<sub>10</sub> stations per MSA based on population and measured levels:

**TABLE D-4 OF APPENDIX D TO PART 58—PM<sub>10</sub> MINIMUM MONITORING REQUIREMENTS (APPROXIMATE NUMBER OF STATIONS PER MSA)<sup>1</sup>**

Population category	High concentration <sup>2</sup>	Medium concentration <sup>3</sup>	Low concentration <sup>4 5</sup>
>1,000,000	6-10	4-8	2-4
500,000-1,000,000	4-8	2-4	1-2
250,000-500,000	3-4	1-2	0-1
100,000-250,000	1-2	0-1	0

<sup>1</sup>Selection of urban areas and actual numbers of stations per area will be jointly determined by EPA and the State agency.

<sup>2</sup>High concentration areas are those for which ambient PM<sub>10</sub> data show ambient concentrations exceeding the PM<sub>10</sub> NAAQS by 20 percent or more.

<sup>3</sup>Medium concentration areas are those for which ambient PM<sub>10</sub> data show ambient concentrations exceeding 80 percent of the PM<sub>10</sub> NAAQS.

<sup>4</sup>Low concentration areas are those for which ambient PM<sub>10</sub> data show ambient concentrations less than 80 percent of the PM<sub>10</sub> NAAQS.

<sup>5</sup>These minimum monitoring requirements apply in the absence of a design value.

## Nitrogen Dioxide

40 CFR Part 58 Appendix D, section 4.3.2 and 4.3.3 contain the minimum requirement for population-based NO<sub>2</sub> Monitoring:

...

(a) Within the NO<sub>2</sub> network, there must be one microscale near-road NO<sub>2</sub> monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected maximum hourly concentrations sited near a major road with high AADT counts as specified in paragraph 4.3.2(a)(1) of this appendix. An additional near-road NO<sub>2</sub> monitoring station is required for any CBSA with a population of 2,500,000 persons or more, or in any CBSA with a population of 1,000,000 or more persons that has one or more roadway segments with 250,000 or greater AADT counts to monitor a second location of expected maximum hourly concentrations. CBSA populations shall be based on the latest available census figures.

...

### 4.3.3 Requirement for Area-wide NO<sub>2</sub> Monitoring

(a) Within the NO<sub>2</sub> network, there must be one monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected highest NO<sub>2</sub> concentrations representing the neighborhood or larger spatial scales. PAMS sites collecting NO<sub>2</sub> data that are situated in an area of expected high NO<sub>2</sub> concentrations at the neighborhood or larger spatial scale may be used to satisfy this minimum monitoring requirement when the NO<sub>2</sub> monitor is operated year round. Emission inventories and meteorological analysis should be used to identify the appropriate locations within a CBSA for locating required area-wide NO<sub>2</sub> monitoring stations. CBSA populations shall be based on the latest available census figures.

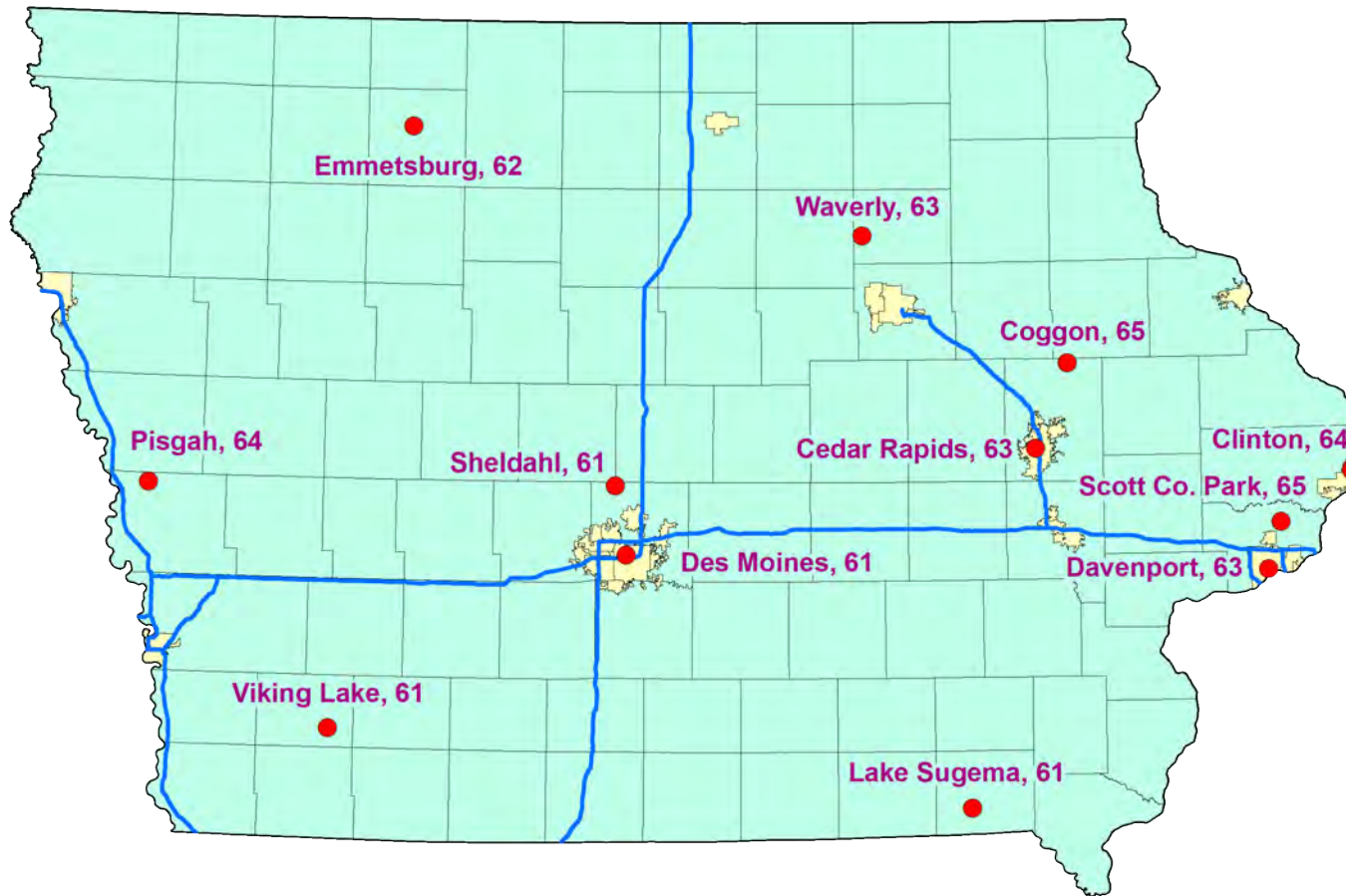
## **Appendix F: Census Bureau Estimates for Iowa MSAs**

<b>US Census Geographic Area</b>	<b>Counties in MSA</b>	<b>Population</b>
Omaha-Council Bluffs, NE-IA	IA: Harrison, Mills, Pottawattamie NE: Cass, Douglas, Sarpy, Saunders, Washington	942,198
Des Moines-West Des Moines, IA	Dallas, Guthrie, Madison, Polk, Warren	655,409
Davenport-Moline-Rock Island, IA-IL	IA: Scott IL: Henry, Mercer, Rock Island	381,451
Cedar Rapids, IA	Benton, Jones, Linn	272,295
Iowa City, IA	Johnson, Washington	173,401
Waterloo-Cedar Falls, IA	Black Hawk, Bremer, Grundy	169,659
Sioux City, IA-NE-SD	IA: Plymouth, Woodbury NE: Dakota, Dixon SD: Union	169,045
Ames, IA	Story	98,105
Dubuque, IA	Dubuque	96,854

Source for Counties: [US Census MSA Delineation](#)

Source for July 1, 2018 Population Estimates: [US Census Population Estimates](#)

**Appendix G: 2018 Design Value Map for Ozone**

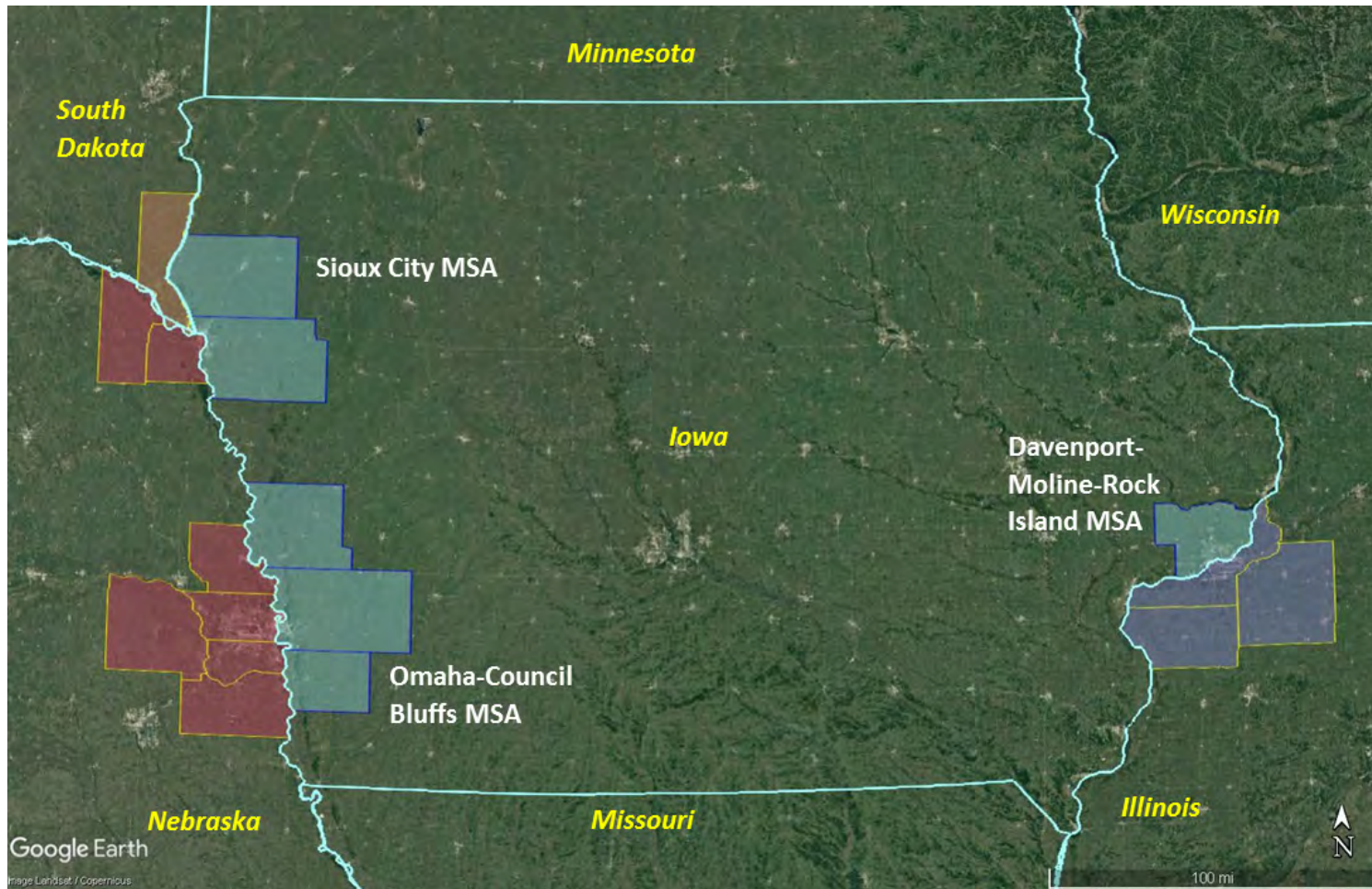


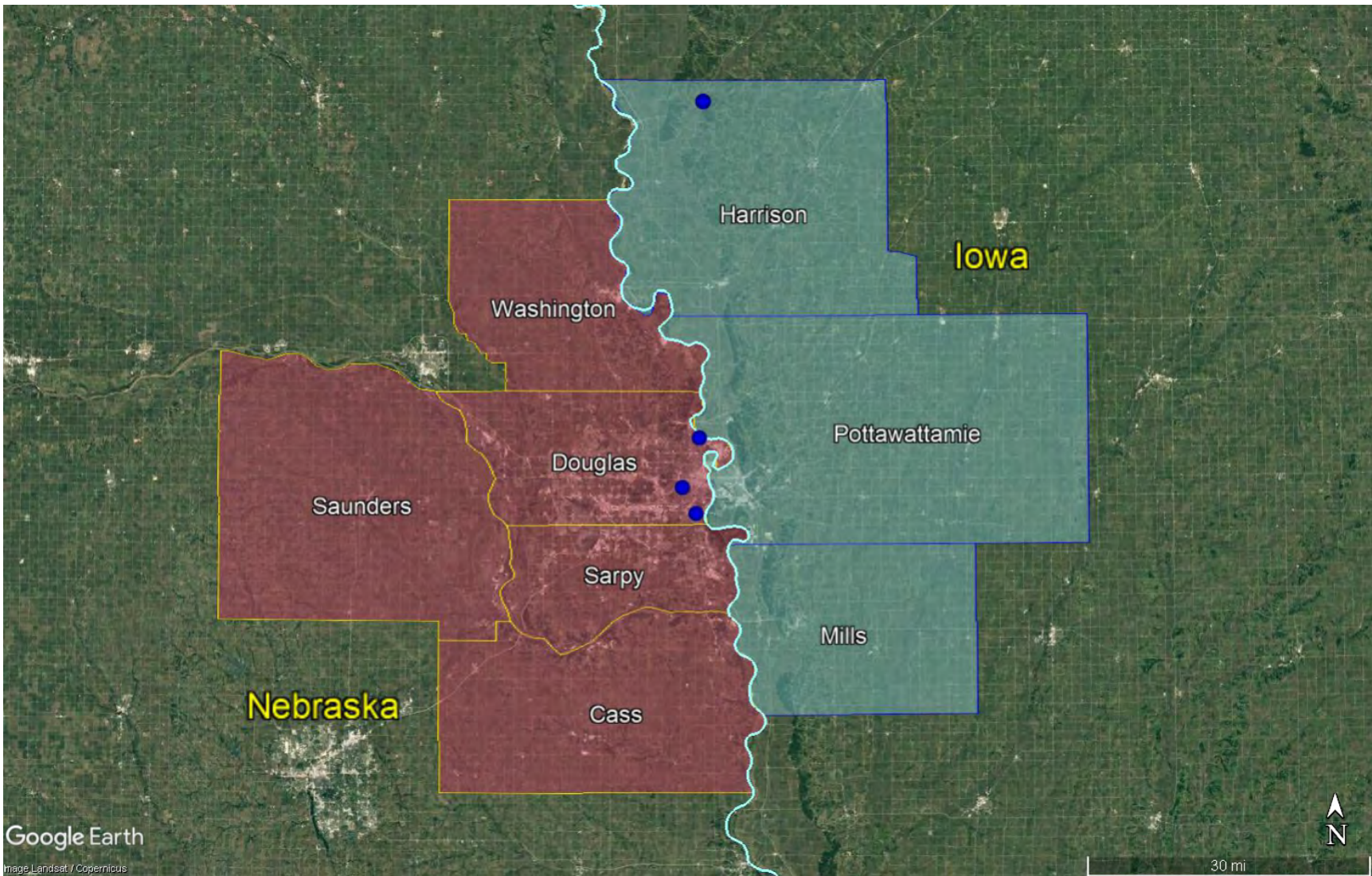
*2016-2018 Ozone Design Values (ppb)*



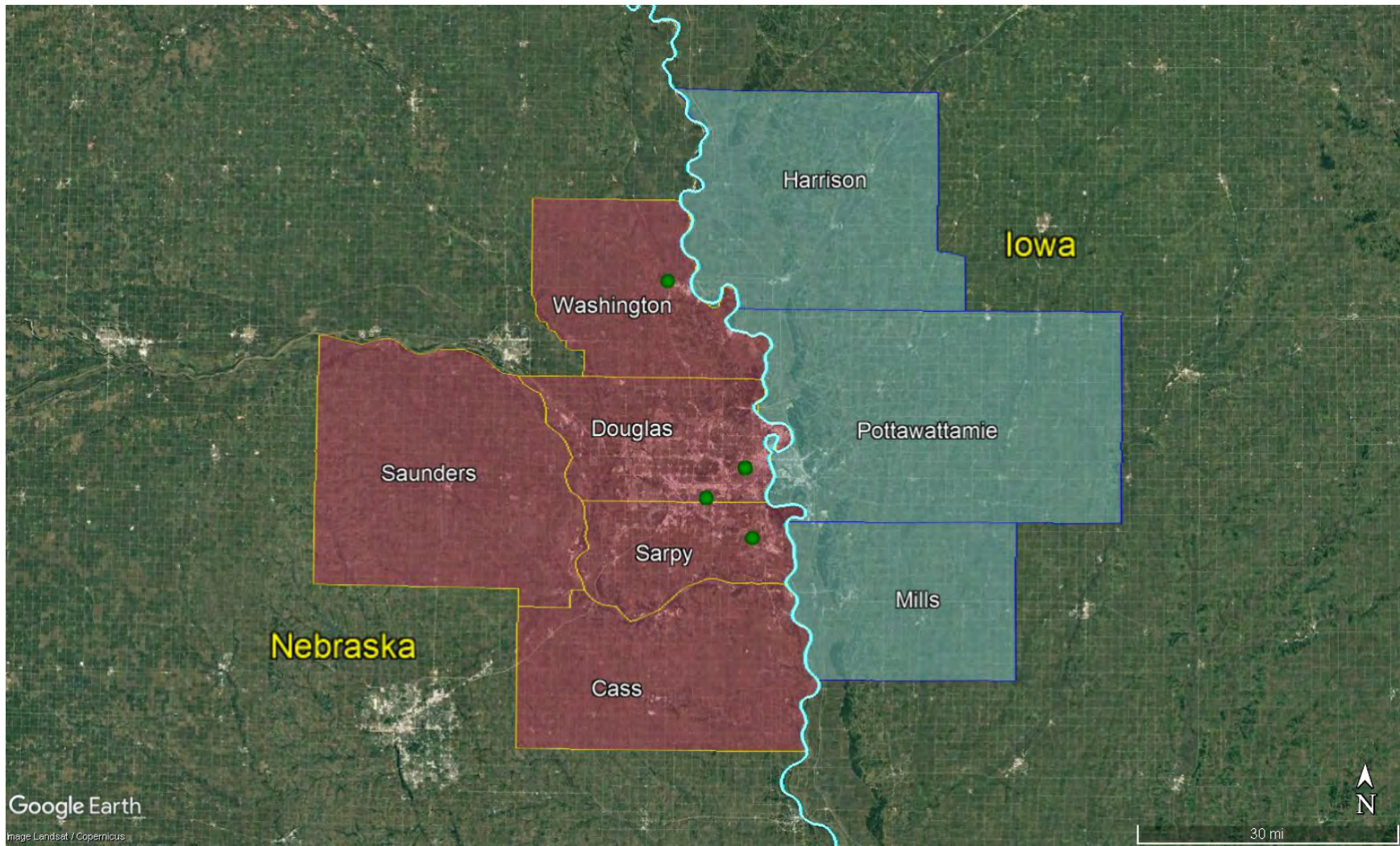
## **Appendix H: Maps of Monitoring Locations in MSAs on the State Border**

Iowa includes portions of three MSAs that it shares with other states: Davenport-Moline-Rock Island, IA-IL; Omaha-Council Bluffs, NE-IA; and Sioux City, NE-IA-SD. To estimate the SLAMS sites operating at the time of this review, Air Quality System (AQS) reports (AMP390 and AMP600) and Network Plans from adjacent states were examined. The following maps show the locations of SLAMS monitoring sites for ozone, PM<sub>2.5</sub>, SO<sub>2</sub>, and PM<sub>10</sub> in these MSA's.

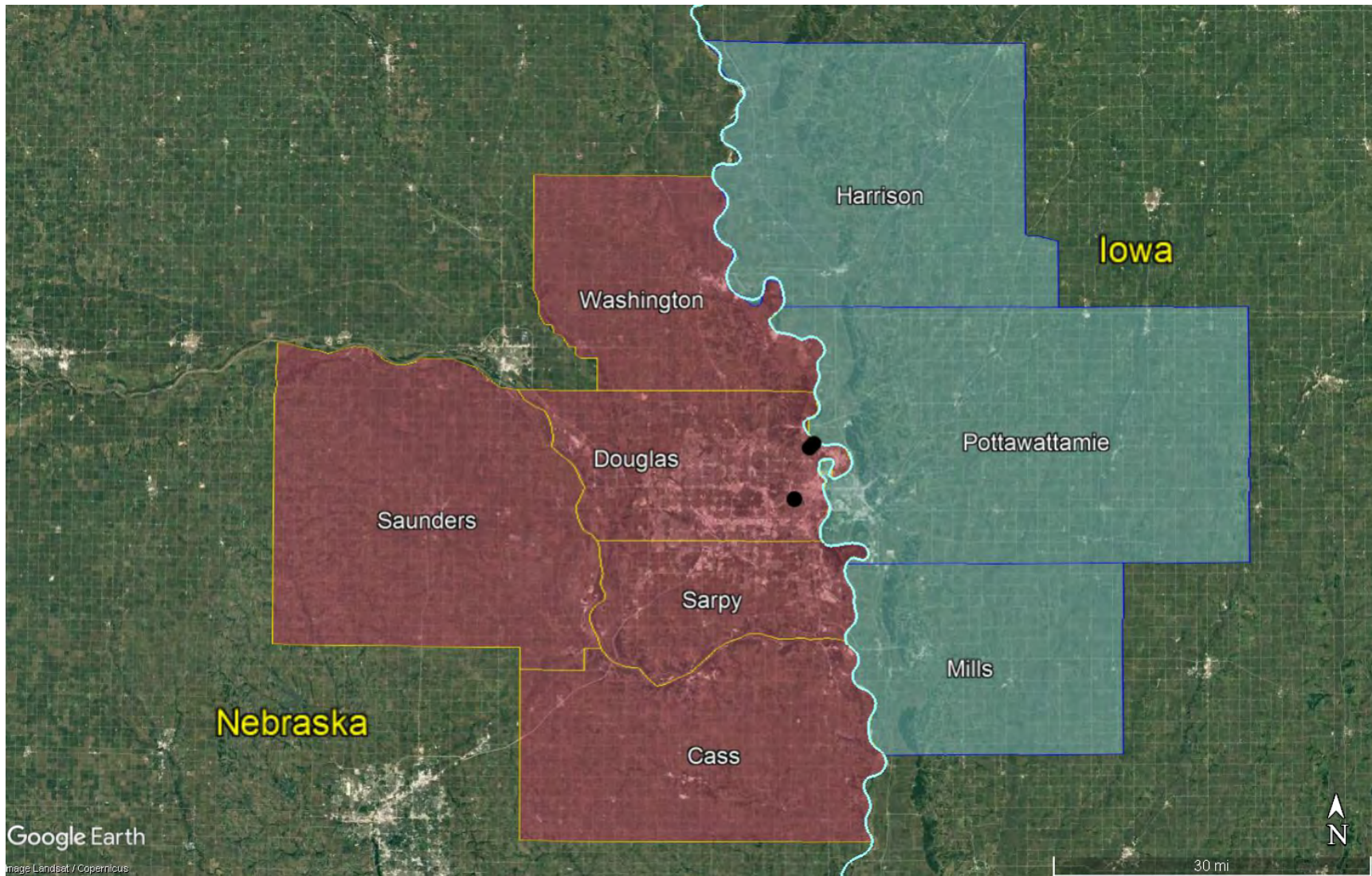




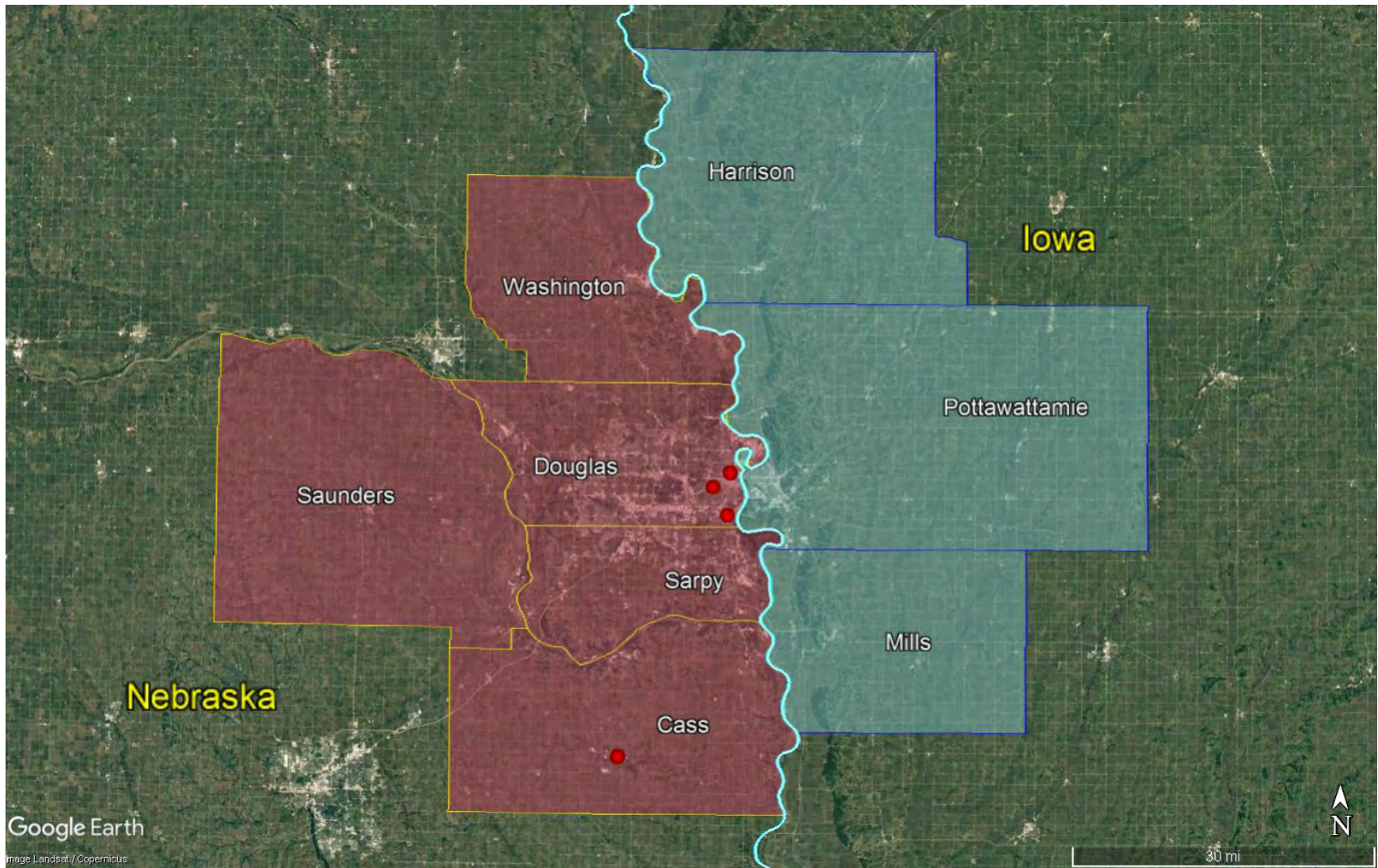
**Omaha-Council Bluffs, NE-IA Ozone SLAMS Monitoring Sites**



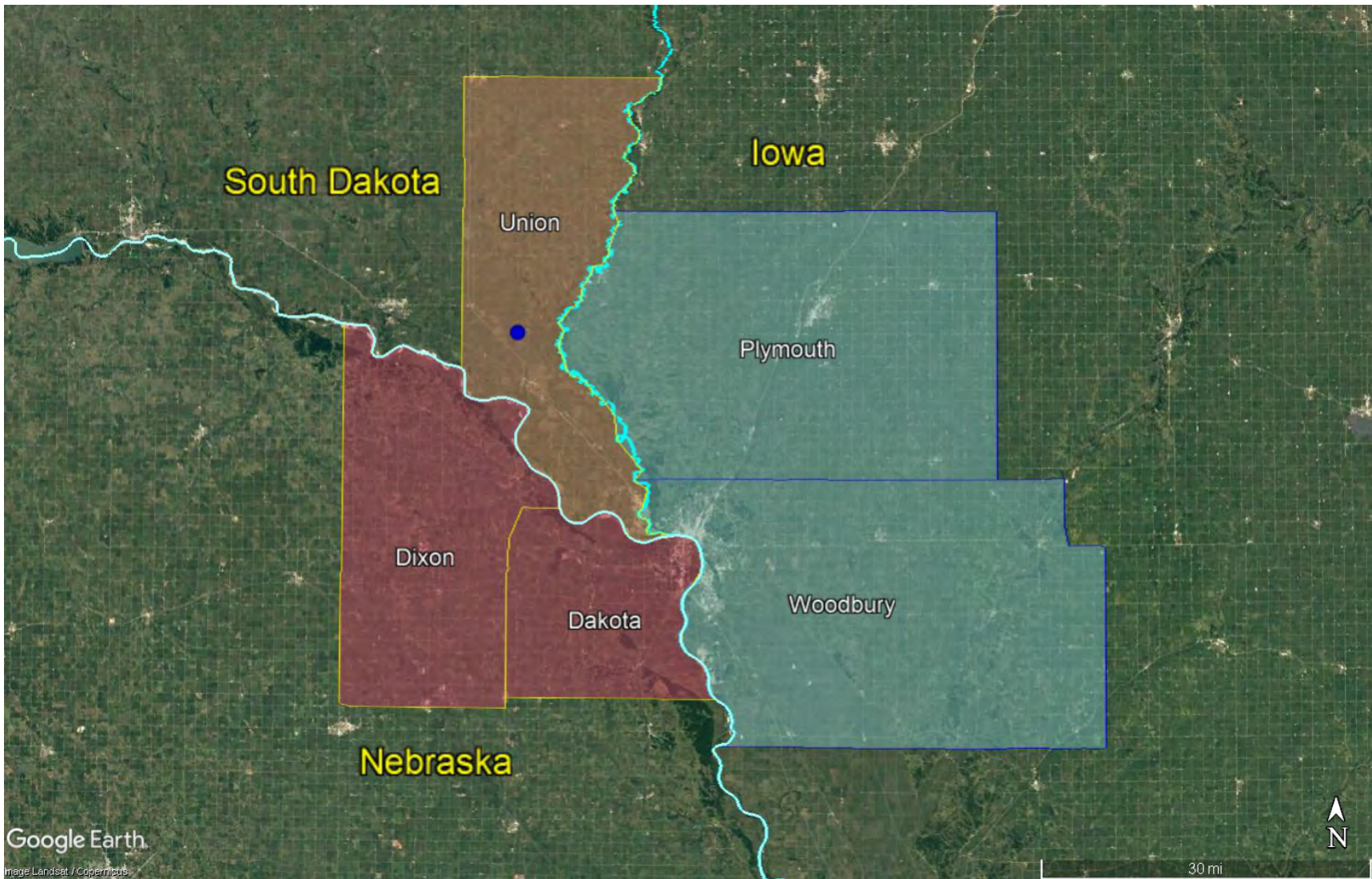
**Omaha-Council Bluffs, NE-IA PM<sub>2.5</sub> SLAMS Monitoring Sites**



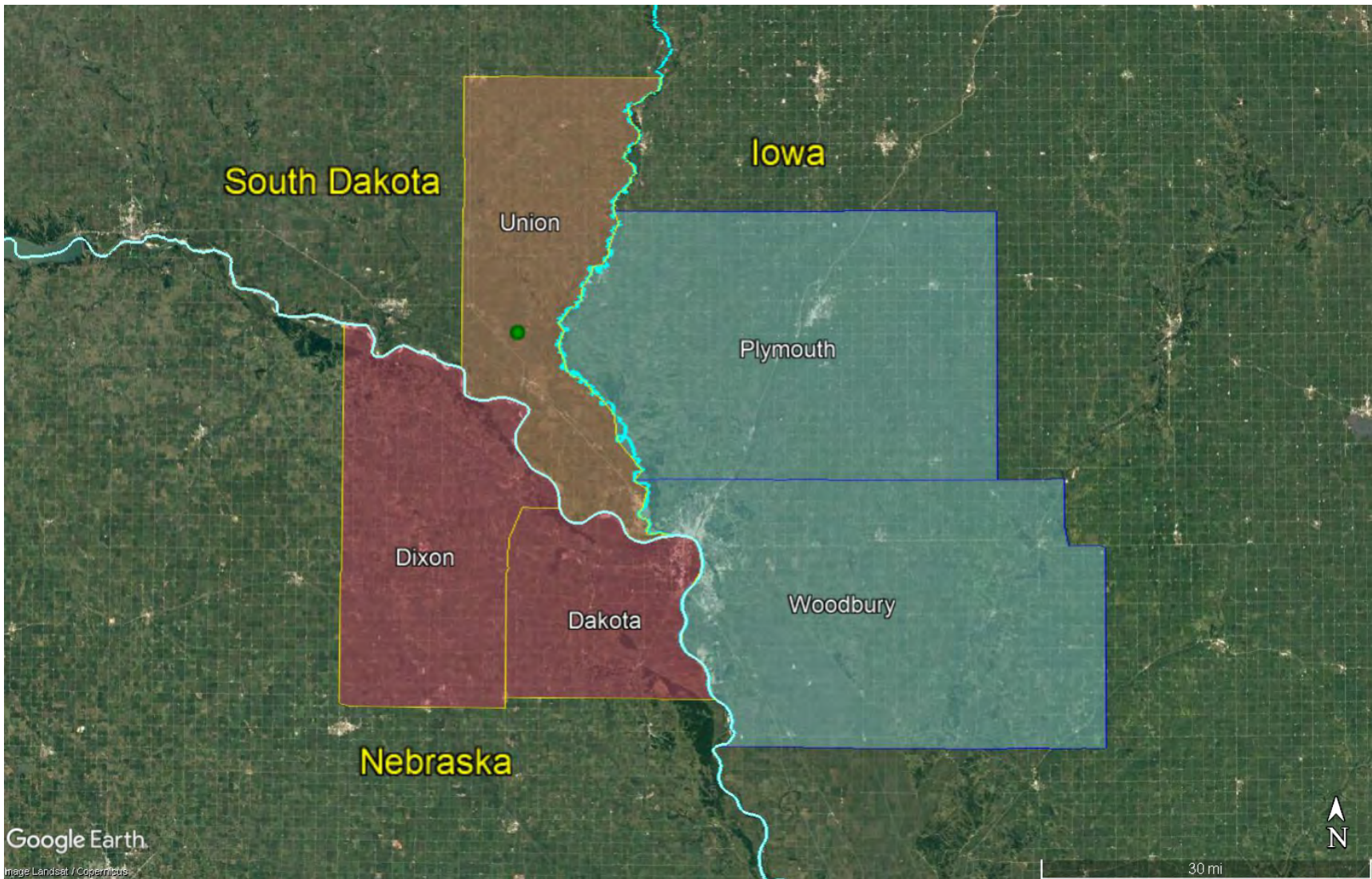
**Omaha-Council Bluffs, NE-IA SO<sub>2</sub> SLAMS Monitoring Sites**



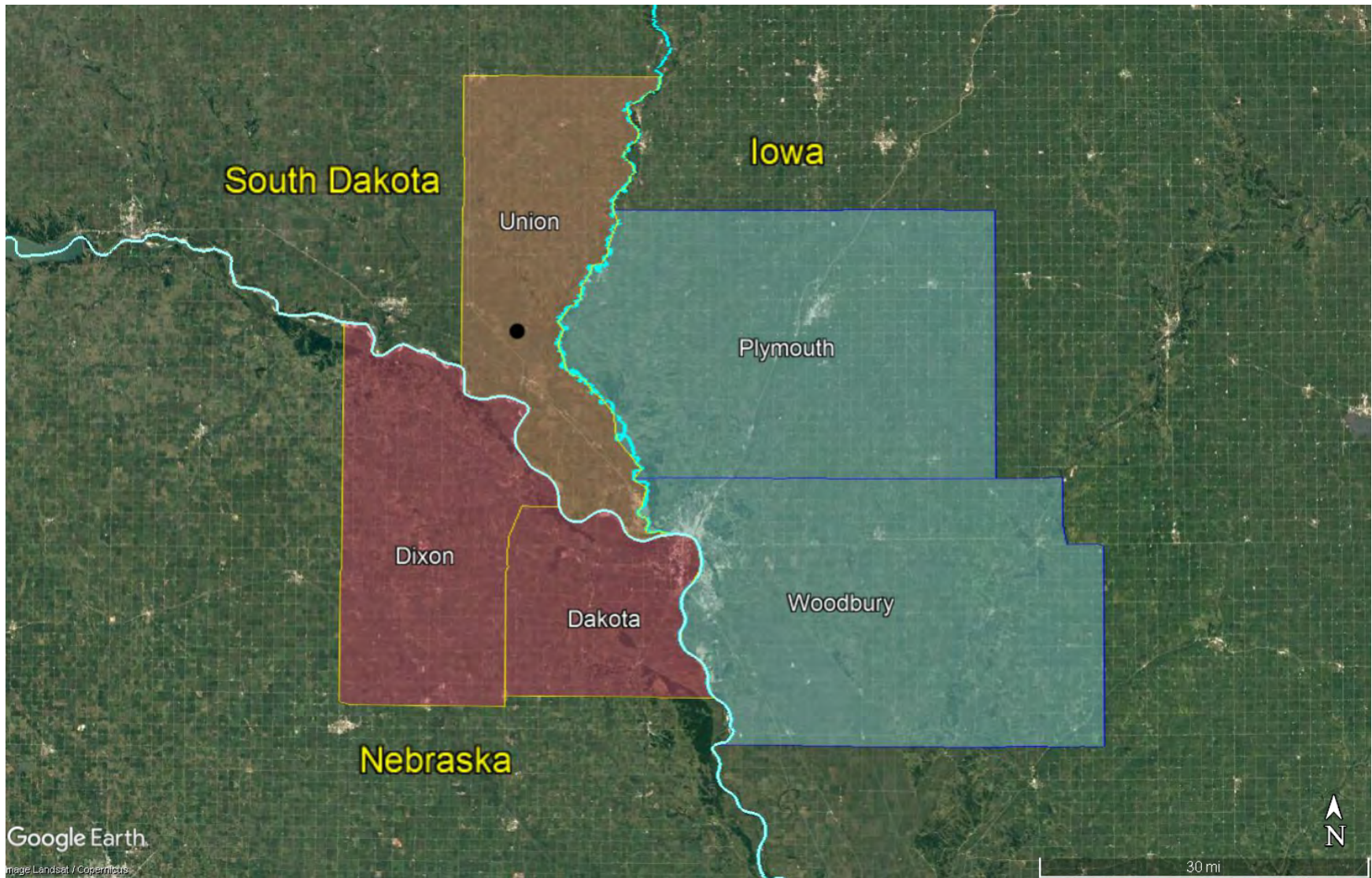
**Omaha-Council Bluffs, NE-IA PM<sub>10</sub> SLAMS Monitoring Sites**



**Sioux City, IA-NE-SD Ozone SLAMS Monitoring Site**

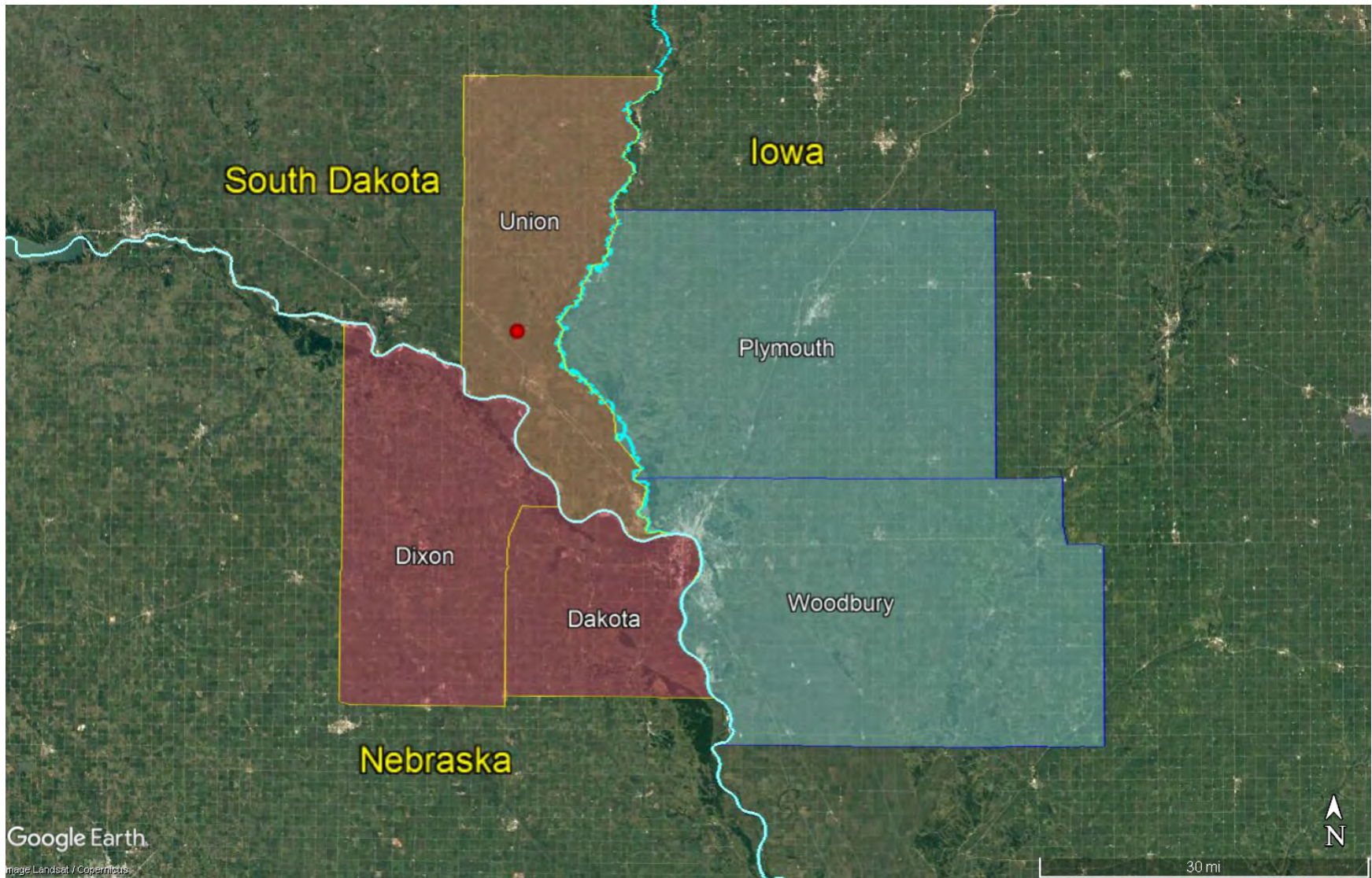


**Sioux City, IA-NE-SD PM<sub>2.5</sub> SLAMS Monitoring Site**

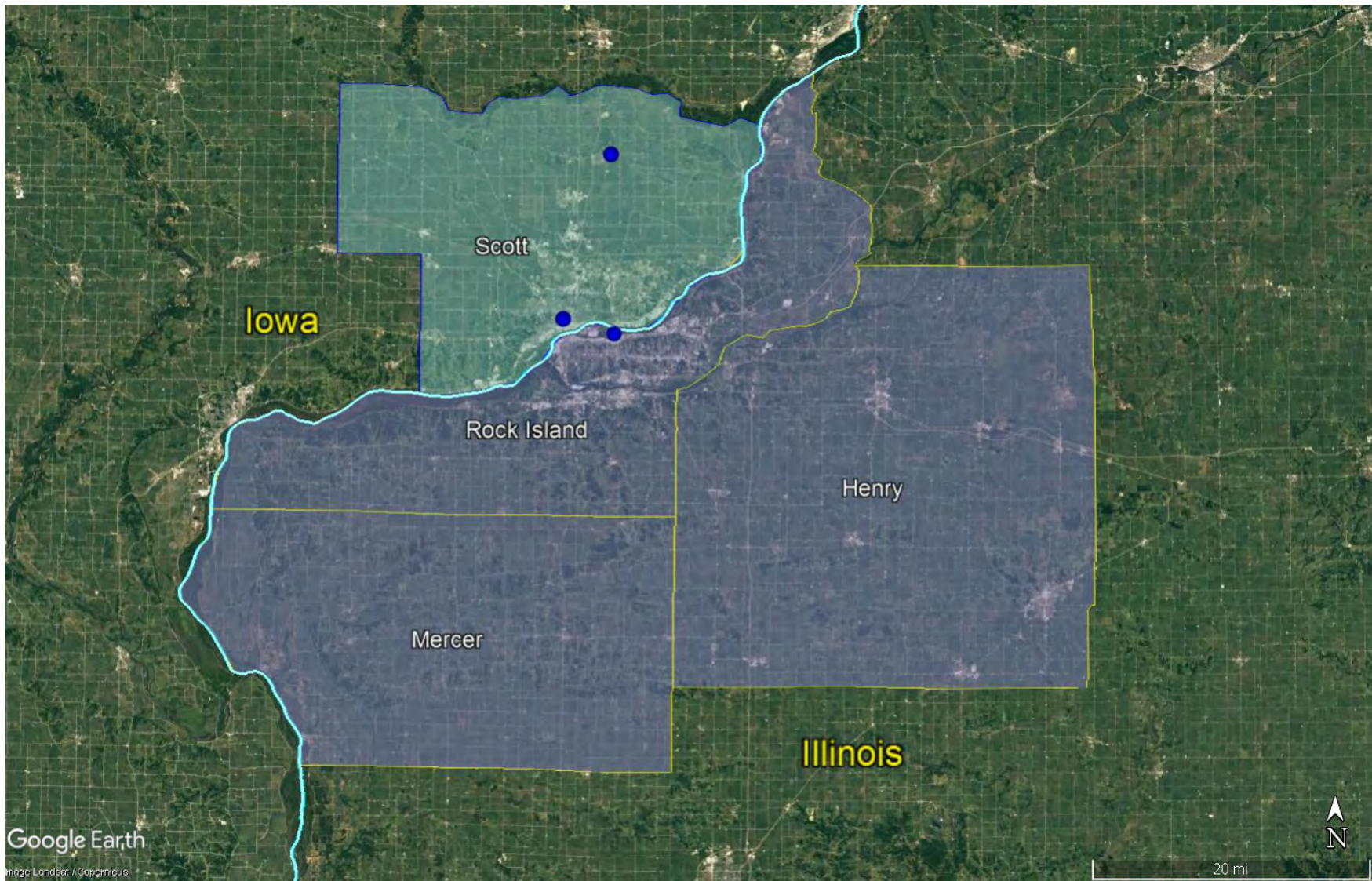


**Sioux City, IA-NE-SD SO<sub>2</sub> SLAMS Monitoring Site**

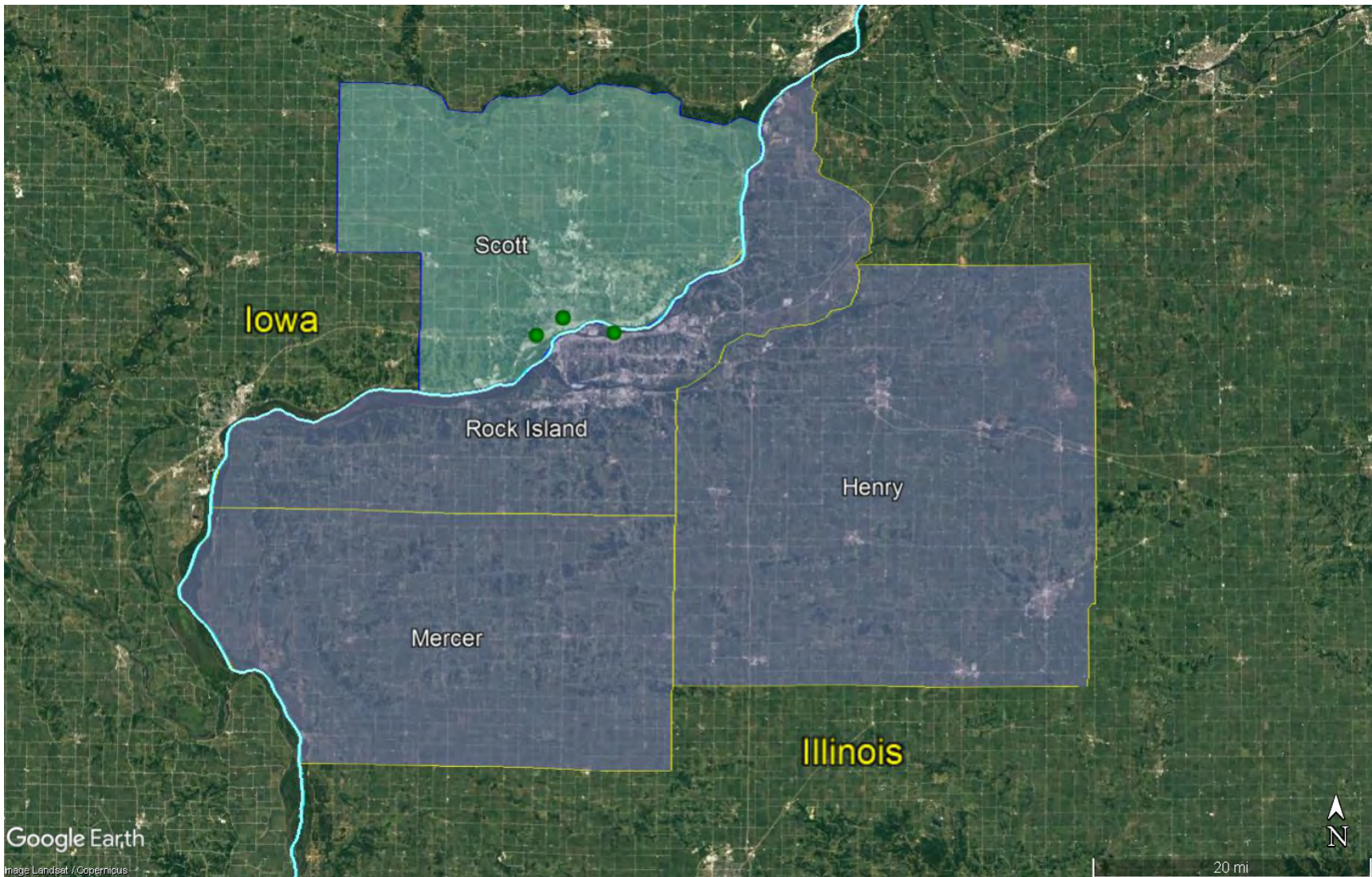




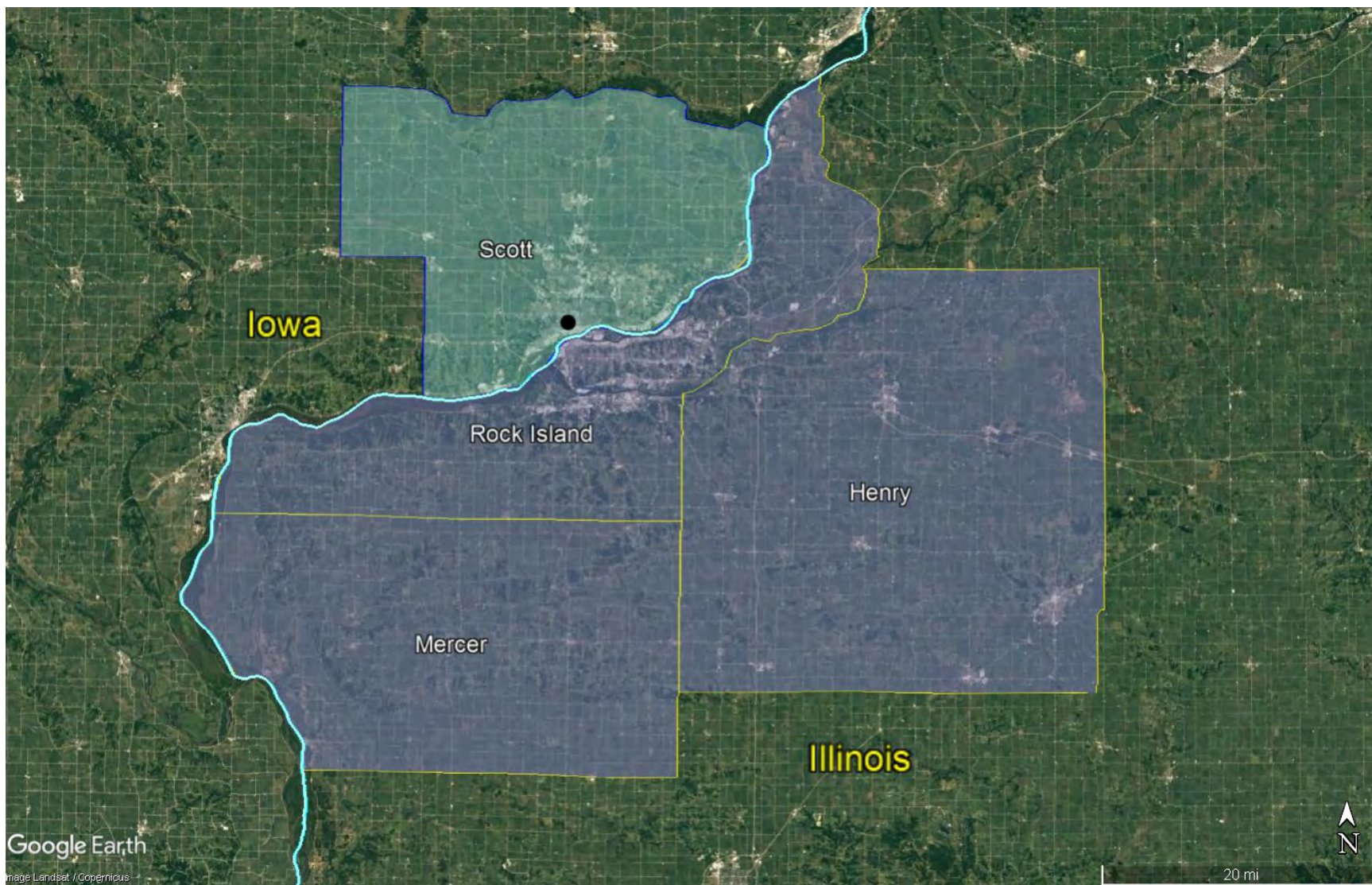
**Sioux City, IA-NE-SD PM<sub>10</sub> SLAMS Monitoring Site**



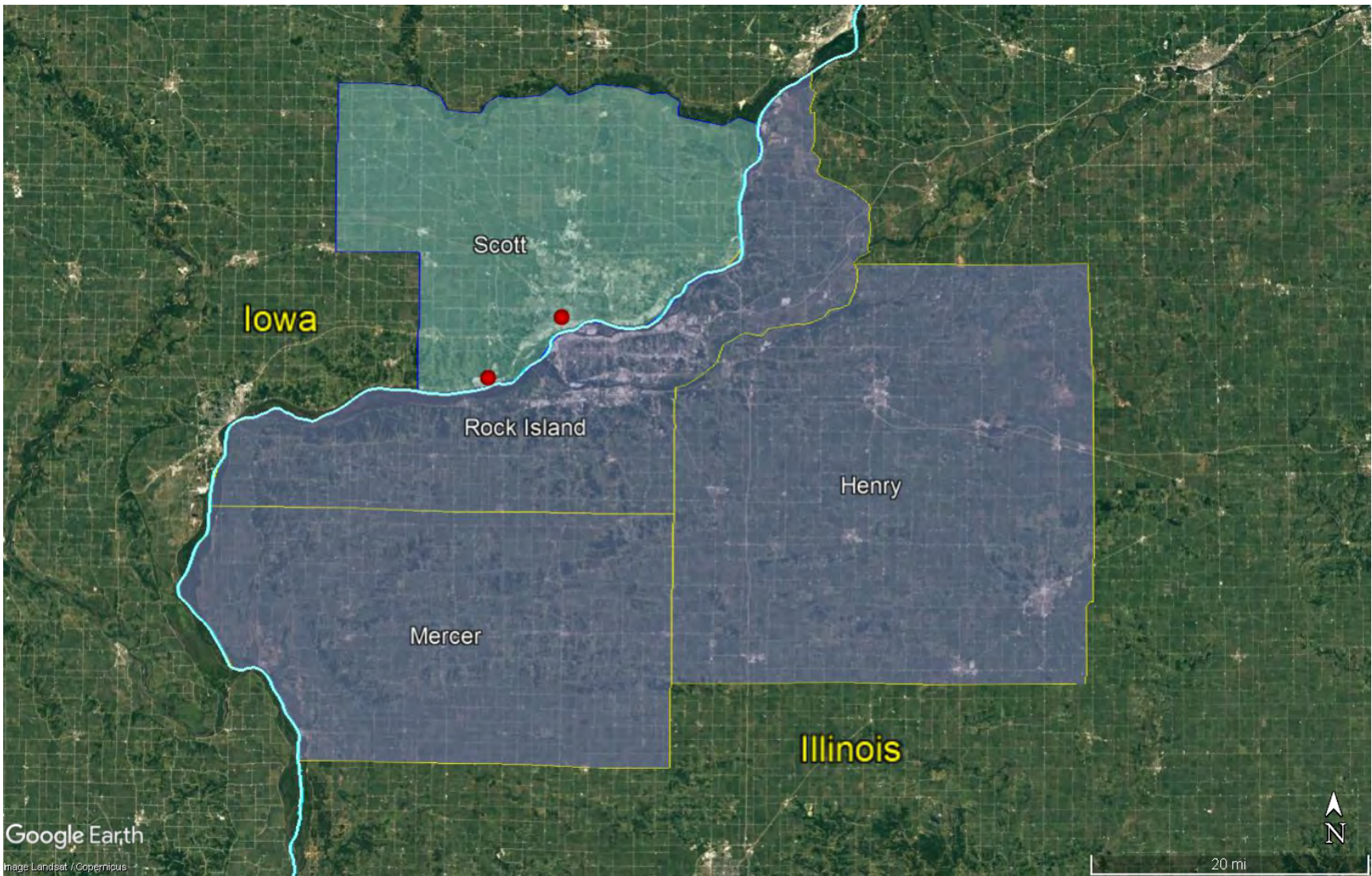
**Davenport-Moline-Rock Island, IA-IL Ozone SLAMS Monitoring Sites**



**Davenport-Moline-Rock Island, IA-IL PM<sub>2.5</sub> SLAMS Monitoring Sites**



**Davenport-Moline-Rock Island, IA-IL SO<sub>2</sub> SLAMS Monitoring Site**



**Davenport-Moline-Rock Island, IA-IL PM<sub>10</sub> SLAMS Monitoring Sites**

# ***Appendix I: Uniform Air Quality Index (AQI) and Daily Reporting***

## **Appendix G to Part 58—Uniform Air Quality Index (AQI) and Daily Reporting**

### **General Requirements**

1. What is the AQI?
2. Why report the AQI?
3. Must I report the AQI?
4. What goes into my AQI report?
5. Is my AQI report for my MSA only?
6. How do I get my AQI report to the public?
7. How often must I report the AQI?
8. May I make exceptions to these reporting requirements?

### **Calculation**

9. How Does the AQI Relate to Air Pollution Levels?
10. What Monitors Should I Use To Get the Pollutant Concentrations for Calculating the AQI?
11. Do I have to forecast the AQI?
12. How Do I Calculate the AQI?

### **Background and Reference Materials**

13. What Additional Information Should I Know?

### **General Requirements**

#### *1. What Is the AQI?*

The AQI is a tool that simplifies reporting air quality to the general public. The AQI incorporates into a single index concentrations of 5 criteria pollutants: ozone (O<sub>3</sub>), particulate matter (PM), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and nitrogen dioxide (NO<sub>2</sub>). The scale of the index is divided into general categories that are associated with health messages.

#### *2. Why Report the AQI?*

The AQI offers various advantages:

- a. It is simple to create and understand.
- b. It conveys the health implications of air quality.
- c. It promotes uniform use throughout the country.

#### *3. Must I Report the AQI?*

You must report the AQI daily if yours is a metropolitan statistical area (MSA) with a population over 350,000.

#### *4. What Goes Into My AQI Report?*

- i. Your AQI report must contain the following:
  - a. The reporting area(s) (the MSA or subdivision of the MSA).
  - b. The reporting period (the day for which the AQI is reported).
  - c. The critical pollutant (the pollutant with the highest index value).
  - d. The AQI (the highest index value).
  - e. The category descriptor and index value associated with the AQI and, if you choose to report in a color format, the associated color. Use only the following descriptors and colors for the six AQI categories:

**Table 1—AQI Categories**

<b>For this AQI</b>	<b>Use this descriptor</b>	<b>And this color<sup>1</sup></b>
0 to 50	“Good”	Green.
51 to 100	“Moderate”	Yellow.
101 to 150	“Unhealthy for Sensitive Groups”	Orange.
151 to 200	“Unhealthy”	Red.
201 to 300	“Very Unhealthy”	Purple.
301 and above	“Hazardous”	Maroon. <sup>1</sup>

<sup>1</sup>Specific colors can be found in the most recent reporting guidance (Guideline for Public Reporting of Daily Air Quality—Air Quality Index (AQI)).

f. The pollutant specific sensitive groups for any reported index value greater than 100. Use the following sensitive groups for each pollutant:

<b>When this pollutant has an index value above 100 * * *</b>	<b>Report these sensitive groups * * *</b>
Ozone	Children and people with asthma are the groups most at risk.
PM <sub>2.5</sub>	People with respiratory or heart disease, the elderly and children are the groups most at risk.
PM <sub>10</sub>	People with respiratory disease are the group most at risk.
CO	People with heart disease are the group most at risk.
SO <sub>2</sub>	People with asthma are the group most at risk.
NO <sub>2</sub>	Children and people with respiratory disease are the groups most at risk.

- ii. When appropriate, your AQI report may also contain the following:
  - a. Appropriate health and cautionary statements.
  - b. The name and index value for other pollutants, particularly those with an index value greater than 100.
  - c. The index values for sub-areas of your MSA.
  - d. Causes for unusual AQI values.
  - e. Actual pollutant concentrations.

**5. Is My AQI Report for My MSA Only?**

Generally, your AQI report applies to your MSA only. However, if a significant air quality problem exists (AQI greater than 100) in areas significantly impacted by your MSA but not in it (for example, O<sub>3</sub> concentrations are often highest downwind and outside an urban area), you should identify these areas and report the AQI for these areas as well.

**6. How Do I Get My AQI Report to the Public?**

You must furnish the daily report to the appropriate news media (radio, television, and newspapers). You must make the daily report publicly available at one or more places of public access, or by any other means, including a

recorded phone message, a public Internet site, or facsimile transmission. When the AQI value is greater than 100, it is particularly critical that the reporting to the various news media be as extensive as possible. At a minimum, it should include notification to the media with the largest market coverages for the area in question.

#### *7. How Often Must I Report the AQI?*

You must report the AQI at least 5 days per week. Exceptions to this requirement are in section 8 of this appendix.

#### *8. May I Make Exceptions to These Reporting Requirements?*

- i. If the index value for a particular pollutant remains below 50 for a season or year, then you may exclude the pollutant from your calculation of the AQI in section 12.
- ii. If all index values remain below 50 for a year, then you may report the AQI at your discretion. In subsequent years, if pollutant levels rise to where the AQI would be above 50, then the AQI must be reported as required in sections 3, 4, 6, and 7 of this appendix.

### **Calculation**

#### *9. How does the AQI relate to air pollution levels?*

For each pollutant, the AQI transforms ambient concentrations to a scale from 0 to 500. The AQI is keyed as appropriate to the national ambient air quality standards (NAAQS) for each pollutant. In most cases, the index value of 100 is associated with the numerical level of the short-term standard (i.e., averaging time of 24-hours or less) for each pollutant. The index value of 50 is associated with the numerical level of the annual standard for a pollutant, if there is one, at one-half the level of the short-term standard for the pollutant, or at the level at which it is appropriate to begin to provide guidance on cautionary language. Higher categories of the index are based on increasingly serious health effects and increasing proportions of the population that are likely to be affected. The index is related to other air pollution concentrations through linear interpolation based on these levels. The AQI is equal to the highest of the numbers corresponding to each pollutant. For the purposes of reporting the AQI, the sub-indexes for PM<sub>10</sub> and PM<sub>2.5</sub> are to be considered separately. The pollutant responsible for the highest index value (the reported AQI) is called the “critical” pollutant.

#### *10. What monitors should I use to get the pollutant concentrations for calculating the AQI?*

You must use concentration data from State/Local Air Monitoring Station (SLAMS) or parts of the SLAMS required by 40 CFR 58.10 for each pollutant except PM. For PM, calculate and report the AQI on days for which you have measured air quality data (e.g., from continuous PM<sub>2.5</sub> monitors required in Appendix D to this part). You may use PM measurements from monitors that are not reference or equivalent methods (for example, continuous PM<sub>10</sub> or PM<sub>2.5</sub> monitors). Detailed guidance for relating non-approved measurements to approved methods by statistical linear regression is referenced in section 13 below.

#### *11. Do I Have to Forecast the AQI?*

You should forecast the AQI to provide timely air quality information to the public, but this is not required. If you choose to forecast the AQI, then you may consider both long-term and short-term forecasts. You can forecast the AQI at least 24-hours in advance using the most accurate and reasonable procedures considering meteorology, topography, availability of data, and forecasting expertise. The document “Guideline for Developing an Ozone Forecasting Program” (the Forecasting Guidance) will help you start a forecasting program. You can also issue short-term forecasts by predicting 8-hour ozone values from 1-hour ozone values using methods suggested in the Reporting Guidance, “Guideline for Public Reporting of Daily Air Quality.”



12. How do I calculate the AQI?

i. The AQI is the highest value calculated for each pollutant as follows:

a. Identify the highest concentration among all of the monitors within each reporting area and truncate as follows:

- (1) Ozone—truncate to 3 decimal places
- PM<sub>2.5</sub>—truncate to 1 decimal place
- PM<sub>10</sub>—truncate to integer
- CO—truncate to 1 decimal place
- SO<sub>2</sub>—truncate to integer
- NO<sub>2</sub>—truncate to integer

(2) [Reserved]

b. Using Table 2, find the two breakpoints that contain the concentration.

c. Using Equation 1, calculate the index.

d. Round the index to the nearest integer.

**Table 2—Breakpoints for the AQI**

These breakpoints							Equal these AQI's	
O <sub>3</sub> (ppm) 8-hour	O <sub>3</sub> (ppm) 1-hour <sup>1</sup>	PM <sub>2.5</sub> (µg/m <sup>3</sup> ) 24-hour	PM <sub>10</sub> (µg/m <sup>3</sup> ) 24-hour	CO (ppm) 8-hour	SO <sub>2</sub> (ppb) 1-hour	NO <sub>2</sub> (ppb) 1-hour	AQI	Category
0.000-0.054		0.0-12.0	0-54	0.0-4.4	0-35	0-53	0-50	Good.
0.055-0.070		12.1-35.4	55-154	4.5-9.4	36-75	54-100	51-100	Moderate.
0.071-0.085	0.125-0.164	35.5-55.4	155-254	9.5-12.4	76-185	101-360	101-150	Unhealthy for Sensitive Groups.
0.086-0.105	0.165-0.204	<sup>3</sup> 55.5-150.4	255-354	12.5-15.4	<sup>4</sup> 186-304	361-649	151-200	Unhealthy.
0.106-0.200	0.205-0.404	<sup>3</sup> 150.5-250.4	355-424	15.5-30.4	<sup>4</sup> 305-604	650-1249	201-300	Very Unhealthy.
201-( <sup>2</sup> )	0.405-0.504	<sup>3</sup> 250.5-350.4	425-504	30.5-40.4	<sup>4</sup> 605-804	1250-1649	301-400	Hazardous.
( <sup>2</sup> )	0.505-0.604	<sup>3</sup> 350.5-500.4	505-604	40.5-50.4	<sup>4</sup> 805-1004	1650-2049	401-500	

<sup>1</sup>Areas are generally required to report the AQI based on 8-hour ozone values. However, there are a small number of areas where an AQI based on 1-hour ozone values would be more precautionary. In these cases, in addition to calculating the 8-hour ozone index value, the 1-hour ozone index value may be calculated, and the maximum of the two values reported.

<sup>2</sup>8-hour O<sub>3</sub> values do not define higher AQI values (≥301). AQI values of 301 or greater are calculated with 1-hour O<sub>3</sub> concentrations.

<sup>3</sup>If a different SHL for PM<sub>2.5</sub> is promulgated, these numbers will change accordingly.

<sup>4</sup>1-hr SO<sub>2</sub> values do not define higher AQI values (≥200). AQI values of 200 or greater are calculated with 24-hour SO<sub>2</sub> concentrations.

ii. If the concentration is equal to a breakpoint, then the index is equal to the corresponding index value in Table 2. However, Equation 1 can still be used. The results will be equal. If the concentration is between two breakpoints, then calculate the index of that pollutant with Equation 1. You must also note that in some areas, the AQI based on 1-hour O<sub>3</sub> will be more precautionary than using 8-hour values (see footnote 1 to Table 2). In these cases, you may use 1-hour values as well as 8-hour values to calculate index values and then use the maximum index value as the AQI for O<sub>3</sub>.

$$I_p = \frac{I_{Hi} - I_{Lo}}{BP_{Hi} - BP_{Lo}} (C_p - BP_{Lo}) + I_{Lo} \quad (\text{Equation 1})$$

Where:

$I_p$  = the index value for pollutant<sub>p</sub>

$C_p$  = the truncated concentration of pollutant<sub>p</sub>

$BP_{Hi}$  = the breakpoint that is greater than or equal to  $C_p$

$BP_{Lo}$  = the breakpoint that is less than or equal to  $C_p$

$I_{Hi}$  = the AQI value corresponding to  $BP_{Hi}$

$I_{Lo}$  = the AQI value corresponding to  $BP_{Lo}$ .

iii. If the concentration is larger than the highest breakpoint in Table 2 then you may use the last two breakpoints in Table 2 when you apply Equation 1.

Example

iv. Using Table 2 and Equation 1, calculate the index value for each of the pollutants measured and select the one that produces the highest index value for the AQI. For example, if you observe a PM<sub>10</sub> value of 210 µg/m<sup>3</sup>, a 1-hour O<sub>3</sub> value of 0.156 ppm, and an 8-hour O<sub>3</sub> value of 0.130 ppm, then do this:

a. Find the breakpoints for PM<sub>10</sub> at 210 µg/m<sup>3</sup> as 155 µg/m<sup>3</sup> and 254 µg/m<sup>3</sup>, corresponding to index values 101 and 150;

b. Find the breakpoints for 1-hour O<sub>3</sub> at 0.156 ppm as 0.125 ppm and 0.164 ppm, corresponding to index values 101 and 150;

c. Find the breakpoints for 8-hour O<sub>3</sub> at 0.130 ppm as 0.116 ppm and 0.374 ppm, corresponding to index values 201 and 300;

d. Apply Equation 1 for 210 µg/m<sup>3</sup>, PM<sub>10</sub>:

$$\frac{150 - 101}{254 - 155} (210 - 155) + 101 = 128$$

e. Apply Equation 1 for 0.156 ppm, 1-hour O<sub>3</sub>:

$$\frac{150 - 101}{0.164 - 0.125} (0.156 - 0.125) + 101 = 140$$

f. Apply Equation 1 for 0.130 ppm, 8-hour O<sub>3</sub>:

$$\frac{300 - 201}{0.374 - 0.116} (0.130 - 0.116) + 201 = 206$$

g. Find the maximum, 206. This is the AQI. The minimal AQI report would read:

v. Today, the AQI for my city is 206 which is Very Unhealthy, due to ozone. Children and people with asthma are the groups most at risk.

*13. What additional information should I know?*

The EPA has developed a computer program to calculate the AQI for you. The program prompts for inputs, and it displays all the pertinent information for the AQI (the index value, color, category, sensitive group, health effects, and cautionary language). The EPA has also prepared a brochure on the AQI that explains the index in detail (The Air Quality Index), Reporting Guidance (Technical Assistance Document for the Reporting of Daily Air Quality—the Air Quality Index (AQI)) that provides associated health effects and cautionary statements, and Forecasting Guidance (Guideline for Developing an Ozone Forecasting Program) that explains the steps necessary to start an air pollution forecasting program. You can download the program and the guidance documents at [www.airnow.gov](http://www.airnow.gov). Reference for relating non-approved PM measurements to approved methods (Eberly, S., T. Fitz-Simons, T. Hanley, L. Weinstock., T. Tamanini, G. Denniston, B. Lambeth, E. Michel, S. Bortnick. Data Quality Objectives (DQOs) For Relating Federal Reference Method (FRM) and Continuous PM<sub>2.5</sub> Measurements to Report an Air Quality Index (AQI). U.S. Environmental Protection Agency, Research Triangle Park, NC. EPA-454/B-02-002, November 2002) can be found on the Ambient Monitoring Technology Information Center (AMTIC) Web site, <http://www.epa.gov/ttnamti1/>.

[64 FR 42547, Aug. 4, 1999, as amended at 73 FR 16513, Mar. 27, 2008; 75 FR 6537, Feb. 9, 2010; 75 FR 35602, June 22, 2010; 78 FR 3286, Jan. 15, 2013; 80 FR 65468, Oct. 26, 2015]

**Appendix J: Federal Collocation Requirements & Operating Schedules**  
**Unless otherwise indicated, all the following is quoted from Appendix A to 40 CFR Part 58.**

**Collocation Requirements for PM<sub>2.5</sub>:**

3.2.3 Collocated Quality Control Sampling Procedures for PM<sub>2.5</sub>. For each pair of collocated monitors, designate one sampler as the primary monitor whose concentrations will be used to report air quality for the site, and designate the other as the quality control monitor. There can be only one primary monitor at a monitoring site for a given time period.

3.2.3.1 For each distinct monitoring method designation (FRM or FEM) that a PQAQ is using for a primary monitor, the PQAQ must have 15 percent of the primary monitors of each method designation collocated (values of 0.5 and greater round up); and have at least one collocated quality control monitor (if the total number of monitors is less than three). The first collocated monitor must be a designated FRM monitor.

3.2.3.2 In addition, monitors selected for collocation must also meet the following requirements:

(a) A primary monitor designated as an EPA FRM shall be collocated with a quality control monitor having the same EPA FRM method designation.

(b) For each primary monitor designated as an EPA FEM used by the PQAQ, 50 percent of the monitors designated for collocation, or the first if only one collocation is necessary, shall be collocated with a FRM quality control monitor and 50 percent of the monitors shall be collocated with a monitor having the same method designation as the FEM primary monitor. If an odd number of collocated monitors is required, the additional monitor shall be a FRM quality control monitor. An example of the distribution of collocated monitors for each unique FEM is provided below. Table A-2 of this appendix demonstrates the collocation procedure with a PQAQ having one type of primary FRM and multiple primary FEMs.

<b>#Primary FEMS of a unique method designation</b>	<b>#Collocated</b>	<b>#Collocated with an FRM</b>	<b>#Collocated with same method designation</b>
1-9	1	1	0
10-16	2	1	1
17-23	3	2	1
24-29	4	2	2
30-36	5	3	2
37-43	6	3	3

3.2.3.3 Since the collocation requirements are used to assess precision of the primary monitors and there can only be one primary monitor at a monitoring site, a site can only count for the collocation of the method designation of the primary monitor at that site.

3.2.3.4 The collocated monitors should be deployed according to the following protocol:

(a) Fifty percent of the collocated quality control monitors should be deployed at sites with annual average or daily concentrations estimated to be within plus or minus 20 percent of either the annual or 24-hour NAAQS and the remainder at the PQAQs discretion;

(b) If an organization has no sites with annual average or daily concentrations within  $\pm 20$  percent of the annual NAAQS or 24-hour NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the annual mean concentrations or 24-hour concentrations among the highest for all sites in the network and the remainder at the PQAOs discretion.

(c) The two collocated monitors must be within 4 meters (inlet to inlet) of each other and at least 2 meters apart for flow rates greater than 200 liters/min or at least 1 meter apart for samplers having flow rates less than 200 liters/min to preclude airflow interference. A waiver allowing up to 10 meters horizontal distance and up to 3 meters vertical distance (inlet to inlet) between a primary and collocated sampler may be approved by the Regional Administrator for sites at a neighborhood or larger scale of representation during the annual network plan approval process. Sampling and analytical methodologies must be consistently implemented for both primary and collocated quality control samplers and for all other samplers in the network.

(d) Sample the collocated quality control monitor on a 1-in-12 day schedule. Report the measurements from both primary and collocated quality control monitors at each collocated sampling site to AQS. The calculations for evaluating precision between the two collocated monitors are described in section 4.2.1 of this appendix.

...

4.7.2 Requirement for Continuous PM<sub>2.5</sub> Monitoring. The State, or where appropriate, local agencies must operate continuous PM<sub>2.5</sub> analyzers equal to at least one-half (round up) the minimum required sites listed in Table D-5 of this appendix. At least one required continuous analyzer in each MSA must be collocated with one of the required FRM/FEM/ARM monitors, unless at least one of the required FRM/FEM/ARM monitors is itself a continuous FEM or ARM monitor in which case no collocation requirement applies. State and local air monitoring agencies must use methodologies and quality assurance/quality control (QA/QC) procedures approved by the EPA Regional Administrator for these required continuous analyzers. [This paragraph is from Appendix D to 40 CFR Part 58.]

#### **Collocation Requirements for Manual PM<sub>10</sub>:**

3.3.4 Collocated Quality Control Sampling Procedures for Manual PM<sub>10</sub>. Collocated sampling for PM<sub>10</sub> is only required for manual samplers. For each pair of collocated monitors, designate one sampler as the primary monitor whose concentrations will be used to report air quality for the site and designate the other as the quality control monitor.

3.3.4.1 For manual PM<sub>10</sub> samplers, a PQAQO must:

(a) Have 15 percent of the primary monitors collocated (values of 0.5 and greater round up); and

(b) Have at least one collocated quality control monitor (if the total number of monitors is less than three).

3.3.4.2 The collocated quality control monitors should be deployed according to the following protocol:

(a) Fifty percent of the collocated quality control monitors should be deployed at sites with daily concentrations estimated to be within plus or minus 20 percent of the applicable NAAQS and the remainder at the PQAQOs discretion;

(b) If an organization has no sites with daily concentrations within plus or minus 20 percent of the NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the daily mean concentrations among the highest for all sites in the network and the remainder at the PQAQOs discretion.

(c) The two collocated monitors must be within 4 meters (inlet to inlet) of each other and at least 2 meters apart for flow rates greater than 200 liters/min or at least 1 meter apart for samplers having flow rates less than 200

liters/min to preclude airflow interference. A waiver allowing up to 10 meters horizontal distance and up to 3 meters vertical distance (inlet to inlet) between a primary and collocated sampler may be approved by the Regional Administrator for sites at a neighborhood or larger scale of representation. This waiver may be approved during the annual network plan approval process. Sampling and analytical methodologies must be consistently implemented for both collocated samplers and for all other samplers in the network.

(d) Sample the collocated quality control monitor on a 1-in-12 day schedule. Report the measurements from both primary and collocated quality control monitors at each collocated sampling site to AQS. The calculations for evaluating precision between the two collocated monitors are described in section 4.2.1 of this appendix.

#### **Collocated Quality Control Sampling for TSP Pb:**

3.4.4 Collocated Quality Control Sampling for TSP Pb for monitoring sites other than non-source oriented NCore. For each pair of collocated monitors for manual TSP Pb samplers, designate one sampler as the primary monitor whose concentrations will be used to report air quality for the site, and designate the other as the quality control monitor.

3.4.4.1 A PQAQO must:

(a) Have 15 percent of the primary monitors (not counting non-source oriented NCore sites in PQAQO) collocated. Values of 0.5 and greater round up; and

(b) Have at least one collocated quality control monitor (if the total number of monitors is less than three).

3.4.4.2 The collocated quality control monitors should be deployed according to the following protocol:

(a) The first collocated Pb site selected must be the site measuring the highest Pb concentrations in the network. If the site is impractical, alternative sites, approved by the EPA Regional Administrator, may be selected. If additional collocated sites are necessary, collocated sites may be chosen that reflect average ambient air Pb concentrations in the network.

(b) The two collocated monitors must be within 4 meters (inlet to inlet) of each other and at least 2 meters apart for flow rates greater than 200 liters/min or at least 1 meter apart for samplers having flow rates less than 200 liters/min to preclude airflow interference.

(c) Sample the collocated quality control monitor on a 1-in-12 day schedule. Report the measurements from both primary and collocated quality control monitors at each collocated sampling site to AQS. The calculations for evaluating precision between the two collocated monitors are described in section 4.2.1 of this appendix.

#### **40 CFR Part 58, § 58.12 Operating schedules.**

State and local governments shall collect ambient air quality data at any SLAMS station on the following operational schedules:

(a) For continuous analyzers, consecutive hourly averages must be collected except during:

(1) Periods of routine maintenance,

(2) Periods of instrument calibration, or

(3) Periods or monitoring seasons exempted by the Regional Administrator.

(b) For Pb manual methods, at least one 24-hour sample must be collected every 6 days except during periods or seasons exempted by the Regional Administrator.

(c) For PAMS VOC samplers, samples must be collected as specified in section 5 of appendix D to this part. Area-specific PAMS operating schedules must be included as part of the PAMS network description and must be approved by the Regional Administrator.

(d) For manual PM<sub>2.5</sub> samplers:

(1)(i) Manual PM<sub>2.5</sub> samplers at required SLAMS stations without a collocated continuously operating PM<sub>2.5</sub> monitor must operate on at least a 1-in-3 day schedule unless a waiver for an alternative schedule has been approved per paragraph (d)(1)(ii) of this section.

(ii) For SLAMS PM<sub>2.5</sub> sites with both manual and continuous PM<sub>2.5</sub> monitors operating, the monitoring agency may request approval for a reduction to 1-in-6 day PM<sub>2.5</sub> sampling or for seasonal sampling from the EPA Regional Administrator. Other requests for a reduction to 1-in-6 day PM<sub>2.5</sub> sampling or for seasonal sampling may be approved on a case-by-case basis. The EPA Regional Administrator may grant sampling frequency reductions after consideration of factors (including but not limited to the historical PM<sub>2.5</sub> data quality assessments, the location of current PM<sub>2.5</sub> design value sites, and their regulatory data needs) if the Regional Administrator determines that the reduction in sampling frequency will not compromise data needed for implementation of the NAAQS. Required SLAMS stations whose measurements determine the design value for their area and that are within  $\pm 10$  percent of the annual NAAQS, and all required sites where one or more 24-hour values have exceeded the 24-hour NAAQS each year for a consecutive period of at least 3 years are required to maintain at least a 1-in-3 day sampling frequency until the design value no longer meets these criteria for 3 consecutive years. A continuously operating FEM or ARM PM<sub>2.5</sub> monitor satisfies this requirement unless it is identified in the monitoring agency's annual monitoring network plan as not appropriate for comparison to the NAAQS and the EPA Regional Administrator has approved that the data from that monitor may be excluded from comparison to the NAAQS.

(iii) Required SLAMS stations whose measurements determine the 24-hour design value for their area and whose data are within  $\pm 5$  percent of the level of the 24-hour PM<sub>2.5</sub> NAAQS must have an FRM or FEM operate on a daily schedule if that area's design value for the annual NAAQS is less than the level of the annual PM<sub>2.5</sub> standard. A continuously operating FEM or ARM PM<sub>2.5</sub> monitor satisfies this requirement unless it is identified in the monitoring agency's annual monitoring network plan as not appropriate for comparison to the NAAQS and the EPA Regional Administrator has approved that the data from that monitor may be excluded from comparison to the NAAQS. The daily schedule must be maintained until the referenced design value no longer meets these criteria for 3 consecutive years.

(iv) Changes in sampling frequency attributable to changes in design values shall be implemented no later than January 1 of the calendar year following the certification of such data as described in §58.15.

(2) Manual PM<sub>2.5</sub> samplers at NCore stations and required regional background and regional transport sites must operate on at least a 1-in-3 day sampling frequency.

(3) Manual PM<sub>2.5</sub> speciation samplers at STN stations must operate on at least a 1-in-3 day sampling frequency unless a reduction in sampling frequency has been approved by the EPA Administrator based on factors such as area's design value, the role of the particular site in national health studies, the correlation of the site's species data with nearby sites, and presence of other leveraged measurements.

(e) For PM<sub>10</sub> samplers, a 24-hour sample must be taken from midnight to midnight (local standard time) to ensure national consistency. The minimum monitoring schedule for the site in the area of expected maximum concentration shall be based on the relative level of that monitoring site concentration with respect to the 24-hour standard as illustrated in Figure 1. If the operating agency demonstrates by monitoring data that during certain periods of the year conditions preclude violation of the PM<sub>10</sub> 24-hour standard, the increased sampling frequency for those periods or seasons may be exempted by the Regional Administrator and permitted to revert back to once in six days. The minimum sampling schedule for all other sites in the area remains once every six days. No less frequently than as part of each 5-year network assessment, the most recent year of data must be considered to estimate the air quality status at the site near the area of maximum concentration. Statistical models such as analysis of concentration frequency distributions as described in "Guideline for the Interpretation of Ozone Air Quality Standards," EPA-450/479-003, U.S. Environmental Protection Agency, Research Triangle Park, NC, January 1979, should be used. Adjustments to the monitoring schedule must be made on the basis of the 5-year network assessment. The site having the highest concentration in the most current year must be given first consideration when selecting the site for the more frequent sampling schedule. Other factors such as major change in sources of PM<sub>10</sub> emissions or in sampling site characteristics could influence the location of the expected maximum concentration site. Also, the use of the most recent 3 years of data might, in some cases, be justified in order to provide a more representative database from which to estimate current air quality status and to provide stability to the network. This multiyear consideration reduces the possibility of an anomalous year biasing a site selected for accelerated sampling. If the maximum concentration site based on the most current year is not selected for the more frequent operating schedule, documentation of the justification for selection of an alternative site must be submitted to the Regional Office for approval during the 5-year network assessment process. Minimum data completeness criteria, number of years of data and sampling frequency for judging attainment of the NAAQS are discussed in appendix K of part 50 of this chapter.

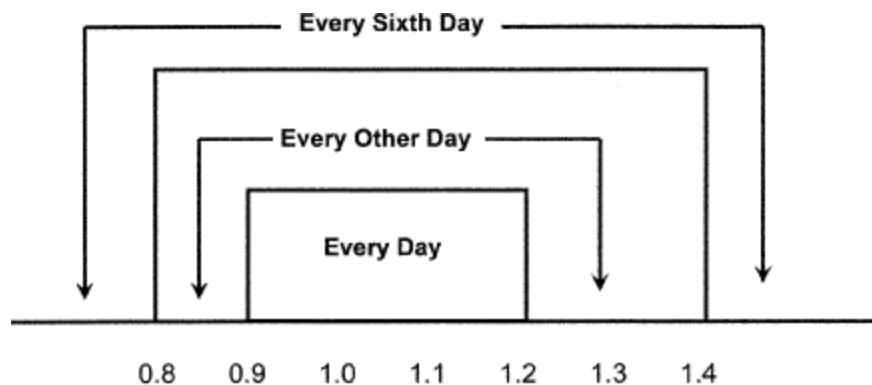


Figure 1 – Ratio to Standard

(f) For manual PM<sub>10-2.5</sub> samplers:

(1) Manual PM<sub>10-2.5</sub> samplers at NCore stations must operate on at least a 1-in-3 day schedule at sites without a collocated continuously operating federal equivalent PM<sub>10-2.5</sub> method that has been designated in accordance with part 53 of this chapter.

(2) [Reserved]

(g) For continuous SO<sub>2</sub> analyzers, the maximum 5-minute block average concentration of the twelve 5-minute blocks in each hour must be collected except as noted in §58.12 (a).

[71 FR 61298, Oct. 17, 2006, as amended at 72 FR 32210, June 12, 2007; 75 FR 35601, June 22, 2010; 78 FR 3282, Jan. 15, 2013; 81 FR 17279, Mar. 28, 2016]



## ***Appendix K: Collocated Monitoring Network Analysis***

For some criteria pollutants, EPA regulations require that multiple monitors are operated at the same site for the purpose of quality assurance [Appendix J](#) or public reporting [Appendix I](#). This Appendix compares the Iowa network to these requirements.

### **Ozone Network Analysis**

There are no federal requirements for collocated ozone monitoring. In the Iowa network, continuous ozone data is generated at twelve sites. The data is used for real-time and AQI reporting and uploaded to the EPA's AirNow Real-Time Reporting System, where it is consolidated to produce the national ozone and AQI maps. At each of the twelve sites, pairs of ozone monitors are operated to allow for a real-time check on the quality of the data. These are FEM monitors, and the data they produce is acceptable for NAAQS compliance and AQI reporting. When two FEM monitors are operated simultaneously at a monitoring site, data from the secondary ozone monitor is substituted for missing values from the primary monitor. The combined dataset is then used to calculate a design value for the site.

### **PM<sub>2.5</sub> Network Analysis**

To meet EPA QA requirements, the Iowa network contains pairs of PM<sub>2.5</sub> monitors (collocated monitors) at some sites. EPA regulations ([Appendix J](#)) require that 15 percent of the sites be collocated (values of 0.5 and greater round up), and a minimum of one collocated monitor within each monitoring group or primary quality assurance organization (PQAO). The Iowa network contains three PQAO's, corresponding to the Polk, Linn and SHL networks. Since the SHL network contains 15 FRM sites, 2.25 (rounding to 2) collocated sites are required. The Polk network (2 FRM sites) and Linn network (1 FRM site), each meet minimum collocation requirements by operation of a single collocated FRM site.

Linn County operates a collocated monitor at its Public Health site. Polk County operates its collocated monitor at its Health Department site. SHL uses two groups of field operators to run its PM<sub>2.5</sub> samplers. Members of the SHL staff collect filters in the eastern part of the state where levels are typically higher. Contract operators collect filters in the western half of the state where levels are typically lower. SHL operates a collocated pair of filter samplers at its NCORE site. SHL also operates a collocated pair of filter samplers at Muscatine High School (with highest annual and third highest 24-Hour design values in the state). A contract operator collects filters at a collocated site at Franklin School in Council Bluffs.

EPA regulations indicate that "50 percent of the collocated quality control monitors should be deployed at sites with annual average or daily concentrations estimated to be within  $\pm 20$  percent of either the annual or 24-hour NAAQS and the remainder at the PQAOs discretion".

EPA also indicates that “If an organization has no sites with annual average or daily concentrations within  $\pm 20$  percent of the annual NAAQS or 24-hour NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the annual mean concentrations or 24-hour concentrations among the highest for all sites in the network and the remainder at the PQAOs discretion”. This requirement is met automatically in the Linn PQAO since they have only one  $PM_{2.5}$  site. It is also met in the Polk PQAO.

Iowa has no sites within 20% of either  $PM_{2.5}$  NAAQS. SHL currently operates three sites in Iowa that have collocated  $PM_{2.5}$  monitors; Muscatine High School, Davenport, Jefferson School, and Council Bluffs, Franklin School. (See Figure K.1.) The Muscatine High School site is among the highest sites in the SHL network. The Department feels that the value of having a collocated  $PM_{10-2.5}$  pair at Davenport, Jefferson School argues against relocating the collocated  $PM_{2.5}$  pair. The Department also feels that there is value in having a collocated  $PM_{2.5}$  monitor at the Council Bluffs site in order to provide additional quality assurance data for a monitor that could impact the attainment status of the large Omaha-Council Bluffs MSA.

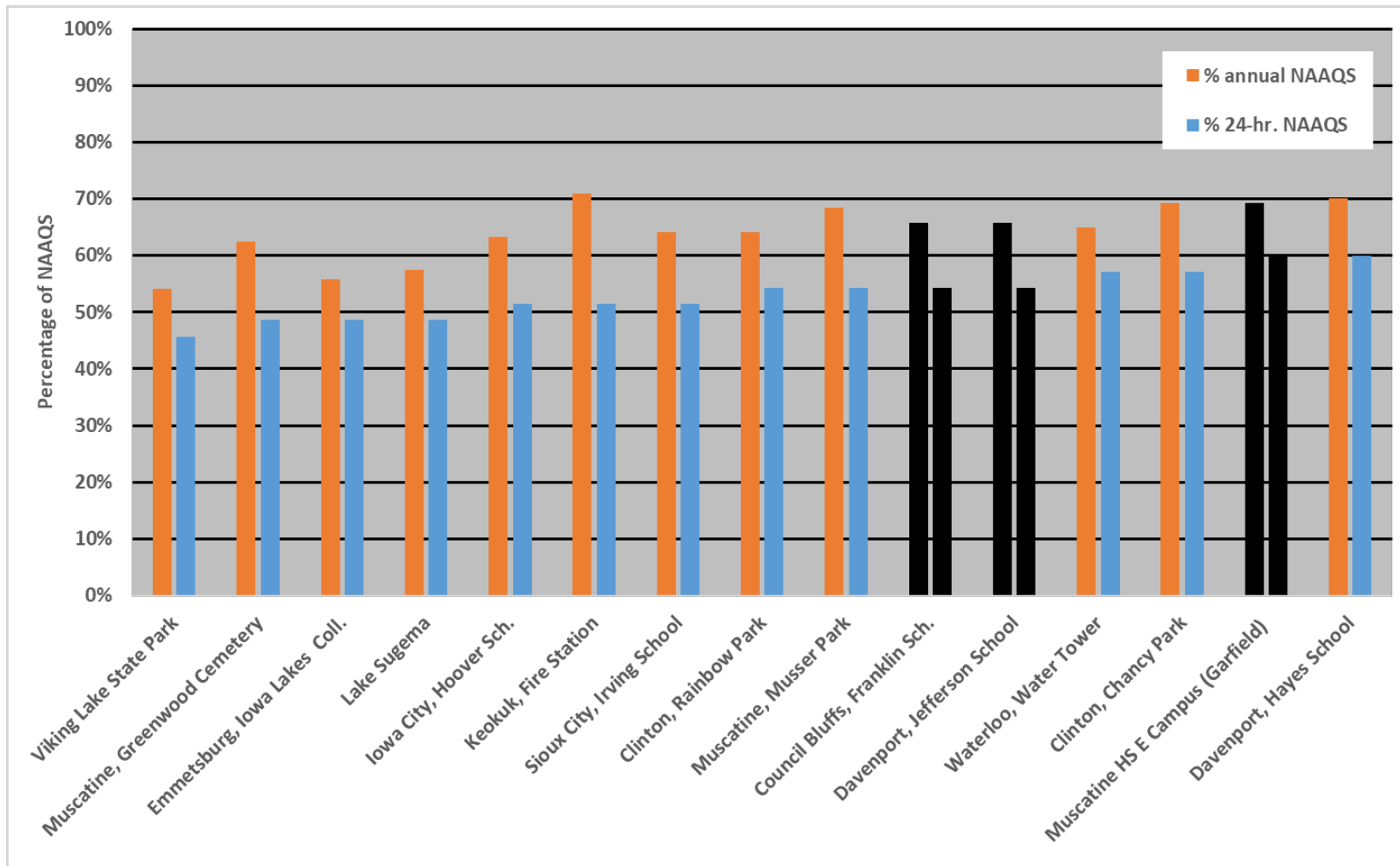


Figure K.1 SHL 2018 PM<sub>2.5</sub> Design Values as a percentage of the NAAQS. Collocated Monitors are shown in black.

## Continuous PM<sub>2.5</sub> Monitoring Requirements

In MSAs where a single PM<sub>2.5</sub> monitor is required and with populations over 350,000 (i.e. the Omaha-Council Bluffs, NE-IA and Des Moines-West Des Moines, IA MSA's<sup>51</sup>), 40 CFR Part 58 requires that an additional continuous PM<sub>2.5</sub> monitor is operated at the same monitoring location ([Appendix E](#) and [Appendix I](#)). A continuous PM<sub>2.5</sub> monitor for the Omaha-Council Bluffs MSA is operated by a Nebraska agency, and a continuous PM<sub>2.5</sub> monitor is currently operated in Des Moines to meet this requirement. NCore sites ([Appendix O](#)) also require a continuous PM<sub>2.5</sub> monitor. The Department operates a continuous PM<sub>2.5</sub> sampler at its Jefferson School site in Davenport (AQS ID 191630015) to meet this requirement.

In the Iowa PM<sub>2.5</sub> network, continuous PM<sub>2.5</sub> data is generated at ten sites. At each of these sites, pairs of continuous monitors are operated. The secondary monitor allows for a real-time check on the quality of the data from the primary monitor. The data from all ten sites is uploaded to the EPA's AirNow<sup>52</sup> system where it is consolidated along with data from other states to produce the national PM<sub>2.5</sub> and AQI maps.

If the data from a FEM continuous monitor can be determined to be NAAQS comparable, it can substitute for FRM data for establishing attainment with the NAAQS.<sup>53</sup>

In 2018, two Iowa sites were operated with FEM monitors, one at the Public Health Site (AQS ID 191530030) in Des Moines (with collocated BAM 1022 analyzers) and another at the Public Health Building (AQS ID 191130040) in Cedar Rapids (with collocated BAM 1020 analyzers). The remaining eight sites were operated with non-FEM monitors (BAM1020 analyzers with SCC separators). In the comparability analysis below, we include all continuous monitors (both FEM and non-FEM) for the sake of completeness.

To establish NAAQS comparability of continuous and FRM data at a monitoring site requires that one perform a linear regression of the 24-hour average continuous data against the FRM data for the period of interest.<sup>54</sup> The slope (S), intercept (I) and coefficient of correlation (R) resulting from this analysis are compared to the PM<sub>2.5</sub> Class III Acceptance Criteria contained in Table C-4 of 40 CFR Part 53<sup>55,56,57</sup>. According to this table, when the FRM data has a coefficient of variation (CCV)  $\geq 0.5$ , R from the regression analysis is required to be  $\geq 0.95$ . However, 40 CFR Part 58<sup>58</sup> indicates that failure to meet the correlation criteria, by itself, is not cause to exclude data from a continuous monitor. Therefore the essential elements of the PM<sub>2.5</sub> Class III Acceptance Criteria for the purpose of establishing comparability of continuous and FRM data

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<sup>51</sup> See: [PM<sub>2.5</sub> Monitoring Network Analysis](#)

<sup>52</sup> [EPA's Airnow](#)

<sup>53</sup> [40 CFR Part 50 Appendix N](#)

<sup>54</sup> [EPA memo on Comparability Assessments](#)

<sup>55</sup> [40 CFR Part 53](#)

<sup>56</sup> [EPA Air Data](#). In the lower right corner of the webpage (under "Generate Technical Reports") see "PM<sub>2.5</sub> Continuous Monitor Comparability Assessments".

<sup>57</sup> [EPA AMTIC Site](#). See bullet item "Spreadsheet with example data included (xls file) (410K)".

<sup>58</sup> See: §58.11 e (6) in [Appendix A](#)

at a site are that the Slope and Intercept from the regression analysis must lie inside a particular region specified in Table C-4 of Part 53, which are indicated with red lines in Figure K.2 below.

In the 2018 Iowa data, the CCV's of the FRM data at all sites with collocated FRM and continuous data were greater than 0.5, and so the criterion for the coefficient of correlation for the FEM vs FRM from Part 53 is  $R \geq 0.95$ .

The results of the regression analysis are compared to the acceptance criteria in Table K.1.

Four continuous monitors satisfied the (non-essential) criterion  $R \geq 0.95$ . Seven monitors meet the slope and intercept criteria; these are indicated in green on the chart (Figure K.2) and in the table (Table K.1). Three monitors met all criteria for S, R, and I.

Two of the four FEM monitors, the collocated BAM1022 analyzers at the Public Health Site in Des Moines, met the slope and intercept criteria for 2018. The Cedar Rapids, Public Health collocated BAM1020 analyzers did not meet the criteria.

The DNR requests exclusion from use in NAAQS determination for both of the Cedar Rapids, Public Health FEM  $PM_{2.5}$  monitors. EPA's AQS system will currently allow NAAQS exclusion flags<sup>59</sup> to be registered for SPM monitors only. One of the Cedar Rapids BAMs is currently indicated in AQS as a SLAMS monitor, and as there are no federal requirements for this monitor according to the analysis above, it will be changed from SLAMS to SPM in AQS to apply the NAAQS exclusion flag to the 2018 data.

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<sup>59</sup> <https://www.epa.gov/aqs/aqs-patch>

Acceptable	Site #	Site Name	AQS ID-POC	Slope	Instrument Type	FEM?	Intercept	R	Count
S, I, R	1	Des Moines, Health Dept.	191530030-3	1.04	BAM 1022	Y	-0.3	0.97	320
S, I, R	2	Viking Lake State Park	191370002-4	0.93	BAM 1020	N	1.6	0.95	114
S, I, R	3	Clinton, Chancy Park	190450019-4	0.97	BAM 1020	N	0.9	0.95	117
S, I	4	Des Moines, Health Dept.	191530030-4	0.91	BAM 1022	Y	-0.4	0.94	311
S, I	5	Iowa City, Hoover Sch.	191032001-3	0.93	BAM 1020	N	0.9	0.90	314
S, I	6	Clinton, Chancy Park	190450019-3	0.95	BAM 1020	N	0.8	0.91	109
S, I	7	Viking Lake State Park	191370002-3	1.03	BAM 1020	N	0.3	0.92	114
R	8	Cedar Rapids, Public Health	191130040-4	0.88	BAM 1020	Y	0.9	0.96	329
-	9	Cedar Rapids, Public Health	191130040-3	0.87	BAM 1020	Y	1.4	0.89	323
-	10	Waterloo, Water Tower	190130009-3	0.89	BAM 1020	N	3.0	0.90	116
-	11	Waterloo, Water Tower	190130009-4	0.90	BAM 1020	N	2.9	0.90	117
-	12	Iowa City, Hoover Sch.	191032001-4	0.84	BAM 1020	N	2.4	0.93	320
-	13	Muscatine HS, East Campus Trailer	191390019-3	0.87	BAM 1020	N	2.2	0.84	345
-	14	Muscatine HS, East Campus Trailer	191390019-4	0.77	BAM 1020	N	2.0	0.84	346
-	15	Emmetsburg, Iowa Lakes Coll.	191471002-3	0.87	BAM 1020	N	2.8	0.88	114
-	16	Emmetsburg, Iowa Lakes Coll.	191471002-4	0.89	BAM 1020	N	1.3	0.92	110
-	17	Davenport, Jefferson Sch.	191630015-3	0.83	BAM 1020	N	3.6	0.83	314
-	18	Davenport, Jefferson Sch.	191630015-4	0.88	BAM 1020	N	3.9	0.91	313
-	19	Keosauqua, Lake Sugema	191770006-3	0.82	BAM 1020	N	1.2	0.83	106
-	20	Keosauqua, Lake Sugema	191770006-4	0.77	BAM 1020	N	1.0	0.90	111

**Table K.1 BAM Performance Relative to the PM<sub>2.5</sub> Class III Acceptance Criteria.**

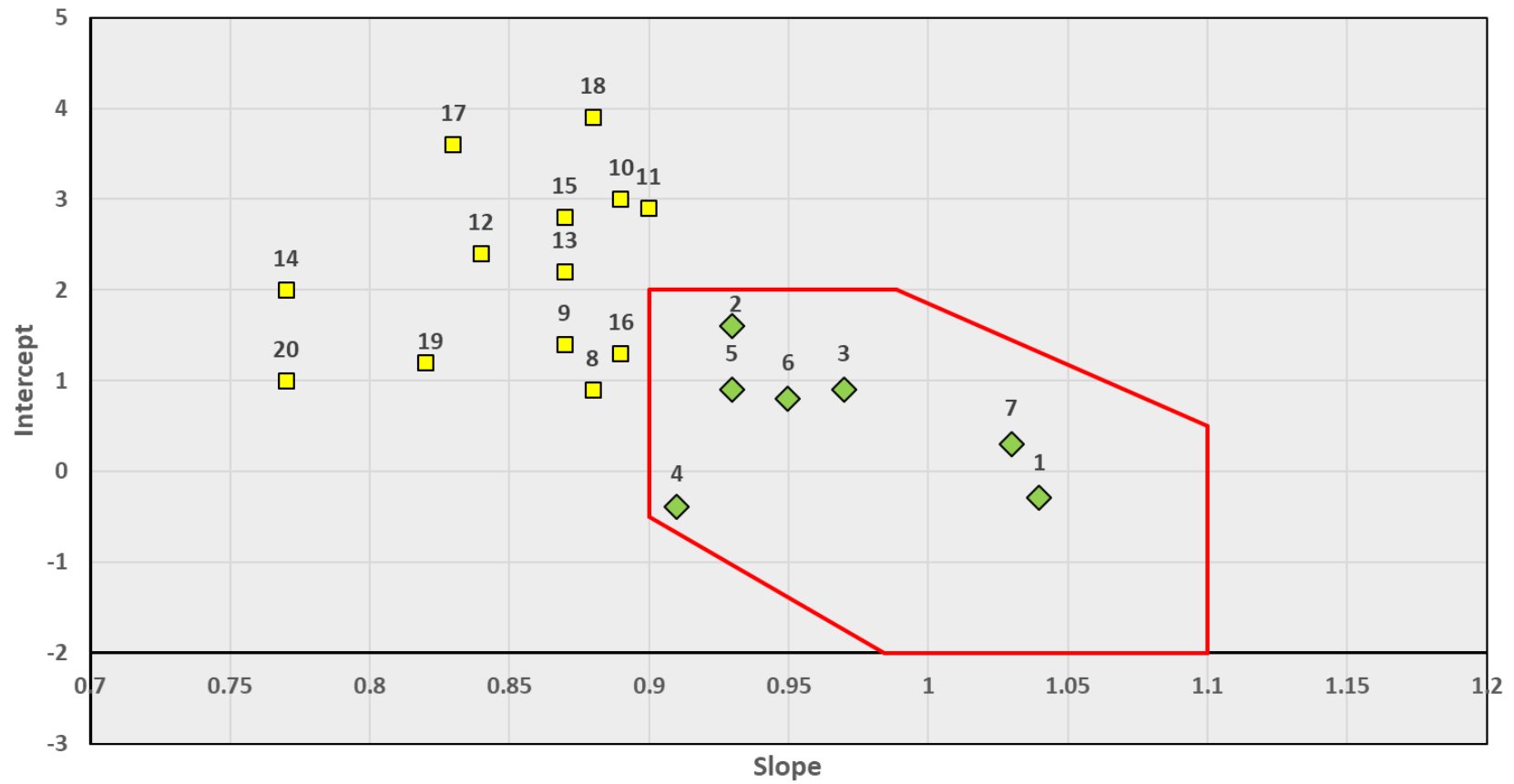


Figure K.2 BAM Performance Relative to the Slope and Intercept Acceptance Criteria in Part 53.

In January of 2019, collocated pairs of FEM Teledyne T640 analyzers were installed at the Hoover School site in Iowa City (AQS ID 191032001) and at the Jefferson Elementary (AQS ID 191630015) NCORE site in Davenport. In September of 2019, the Linn County Local Program intends to replace its secondary BAM1020 analyzer with FEM Teledyne T640 at the Public Health Building site (AQS ID 191130040).

The new T640 data will be evaluated relative to the comparability requirements indicated above in 2019. In the event that the data does not meet these comparability requirements, NAAQS exclusion flags will be added at SPM sites, and the data will be coded as 88502 (Acceptable for AQI only) at SLAMs sites.

### **PM<sub>10-2.5</sub> Network Analysis**

There are currently no PQAQO collocation requirements for PM<sub>10-2.5</sub>. The Iowa network contains three PQAQO's, corresponding to the Polk, Linn, and SHL networks and the networks operate 1, 1, and 4 sites respectively. Each of the PQAQO's operates one collocated PM<sub>10-2.5</sub> site.

### **PM<sub>10</sub> Network Analysis**

EPA regulations require collocation at 15 percent (or at least one) of the monitoring sites within a PQAQO. The Iowa network contains three PQAQO's, corresponding to the Polk, Linn and SHL networks. Since the SHL network contains 6 FRM sites, 0.9 (rounding to 1) collocated site is required. For the Polk network (1 FRM site) and Linn network (1 FRM site), one collocated site meets the requirement.

Linn County operates a collocated monitor at its Public Health site. Polk County operates its collocated monitor at its Health Department site. SHL operates a collocated pair of filter samplers at its NCORE site as well as the Holcim Cement site in Mason City.

According to EPA regulations "Fifty percent of the collocated quality control monitors should be deployed at sites with daily concentrations estimated to be within plus or minus 20 percent of the applicable NAAQS and the remainder at the PQAQOs discretion". Based on data from the most recent 5 years, the only site in Iowa measuring levels within 20 percent of the NAAQS (120 µg/m<sup>3</sup> or more) is the Linwood Mining site in Buffalo, Iowa (see Table K.2) and it is currently collocated.



PQAO	AQS ID	Site Name	2013	2014	2015	2016	2017	2018
SHL	191630017	Buffalo, Linwood Mining	141	145	153	120	110	123
SHL	190330018	Mason City, Holcim Cement	73	57	70	72	84	50
Polk	191530030	Des Moines, Health Dept.	46	52	40	43	65	48
Linn	191130040	Cedar Rapids, Public Health	57	53	69	53	64	54
SHL	191550009	Council Bluffs, Franklin School	65	53	50	53	64	83
SHL	191630015	Davenport, Jefferson Sch.	50	49	63	40	49	39
SHL	191390015	Muscatine HS, East Campus Roof	57	50	65	41	45	50
SHL	191770006	Keosauqua, Lake Sugema	42	46	38	41	44	52

**Table K.2 Annual Daily Maximum Values for Iowa PM<sub>10</sub> Sites. All units are µg/m<sup>3</sup>. Shaded rows indicate that the site has collocated monitors.**

EPA also indicates that “If an organization has no sites with daily concentrations within plus or minus 20 percent of the NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the daily mean concentrations among the highest for all sites in the network and the remainder at the PQAOs discretion.”

The Polk and Linn County PQAOs each operate one PM<sub>10</sub> and each of these sites are collocated to meet these EPA requirements.

When multiple FRM/FEM monitors are operated simultaneously at a monitoring site, in the absence of EPA rules describing the how the monitor data is to be aggregated to establish the site data, there is potential ambiguity in establishing the data capture and NAAQS attainment status at the site (Figure K.3). Owing to comparability issues between filter-based and continuous methods, the Department considers the FRM method (filter data) to be more suitable for making PM<sub>10</sub> attainment decisions than continuous methods. At Linwood Mining near Buffalo, SHL collects filters from the primary filter sampler (POC 2) to establish NAAQS attainment, and operates a collocated BAM (POC 3) for quality assurance purposes and an additional BAM (POC 5) for real-time AQI reporting. A comparison of each BAM relative to the FRM is displayed in Figure K.3.

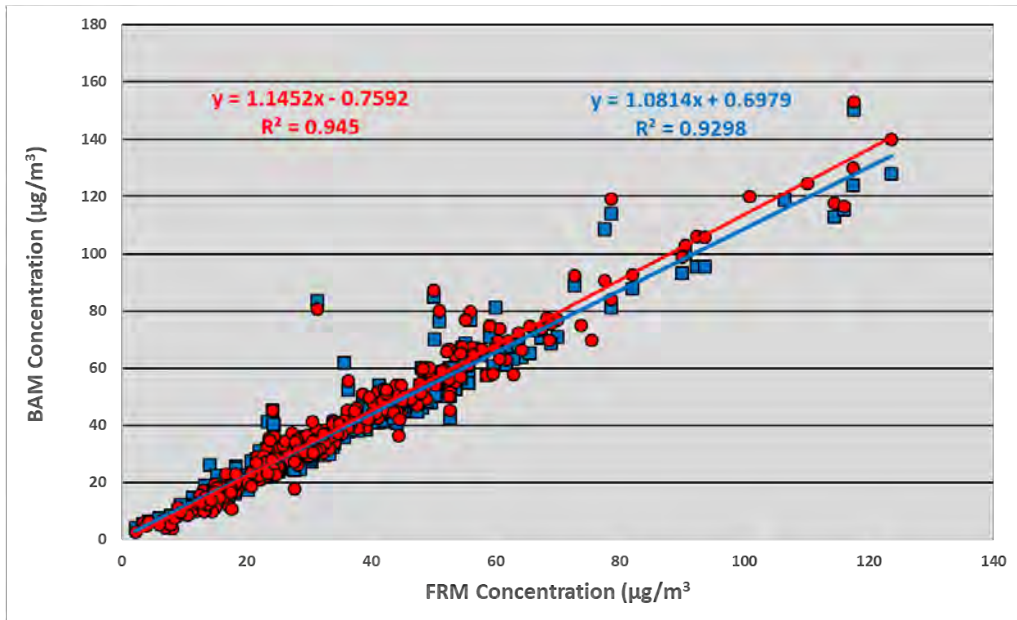


Figure K.3 Buffalo, Linwood Mining PM<sub>10</sub> BAM vs FRM in 2018.

### SO<sub>2</sub>, NO<sub>2</sub>, CO Network Analysis

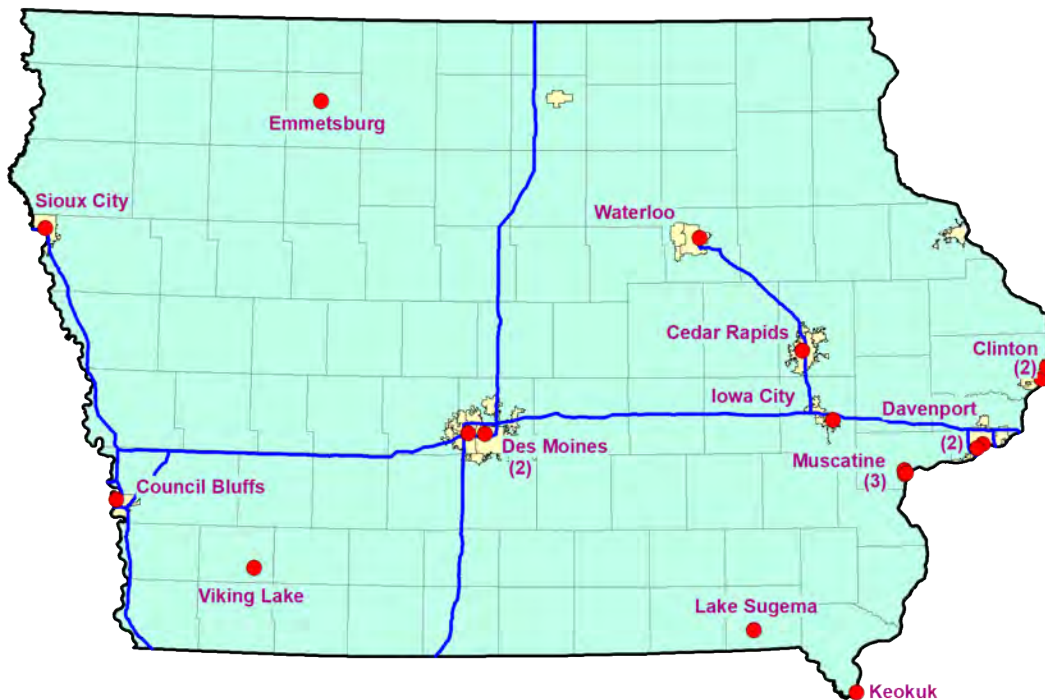
There are no federal requirements for collocated SO<sub>2</sub>, NO<sub>2</sub> or CO monitoring, and there are no collocated monitors in the Iowa network for these criteria pollutants.

### Lead Network Analysis

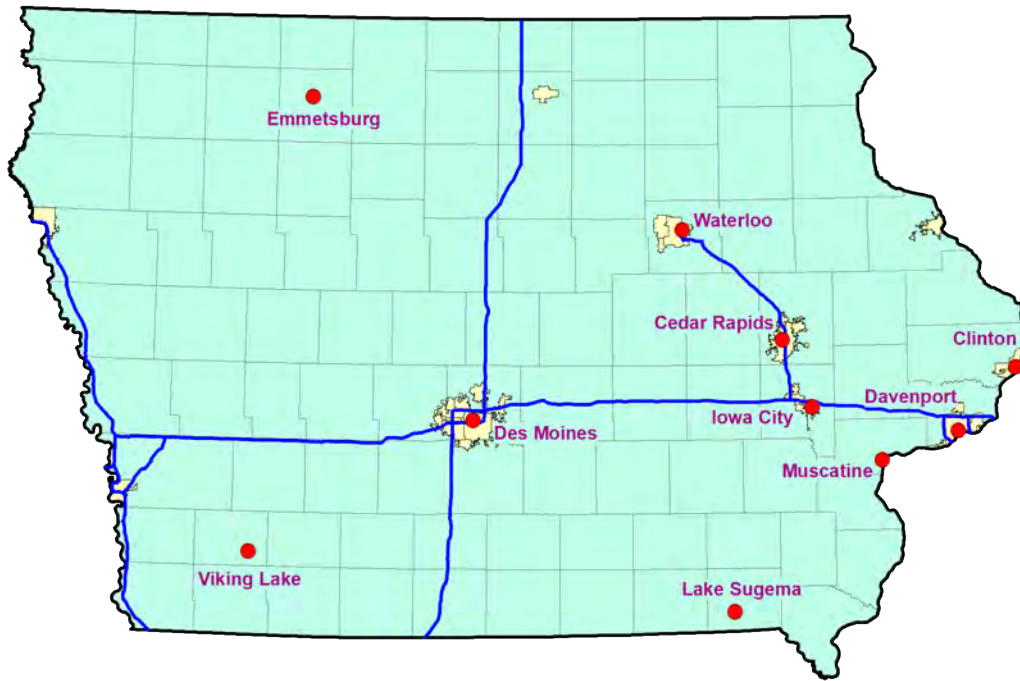
Iowa has only one Lead site and meets CFR requirements by having a one collocated monitor at this site.

## Appendix L: Iowa Ambient Air Monitoring Network Maps

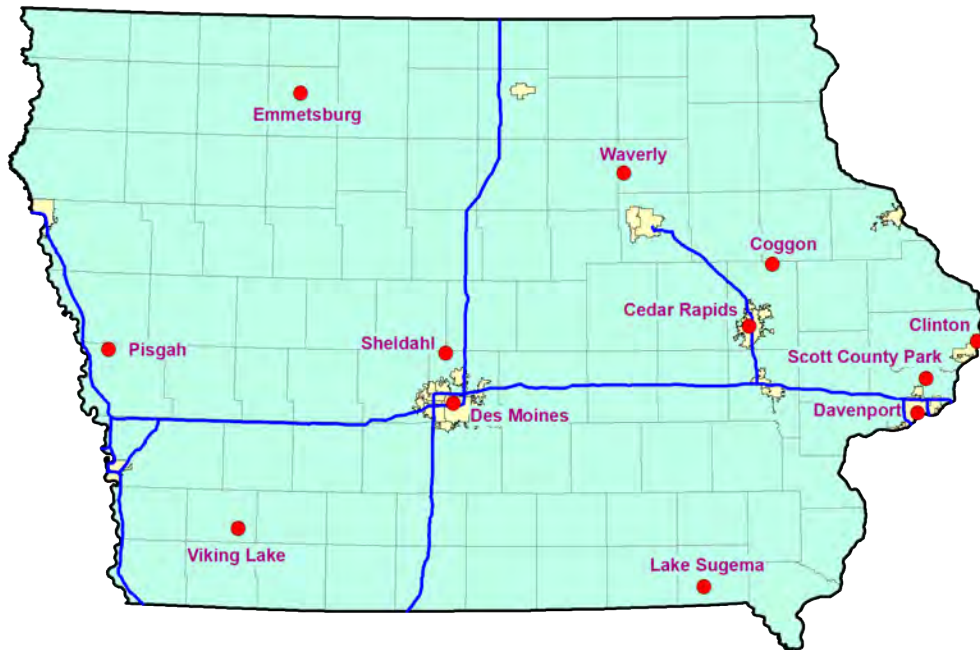
The following maps show the locations for the criteria pollutant monitors in the state of Iowa, which are current as of January 1, 2019. Non-criteria pollutant maps are also included for the continuous PM<sub>2.5</sub> monitoring network and the Toxics and Speciation monitoring networks.



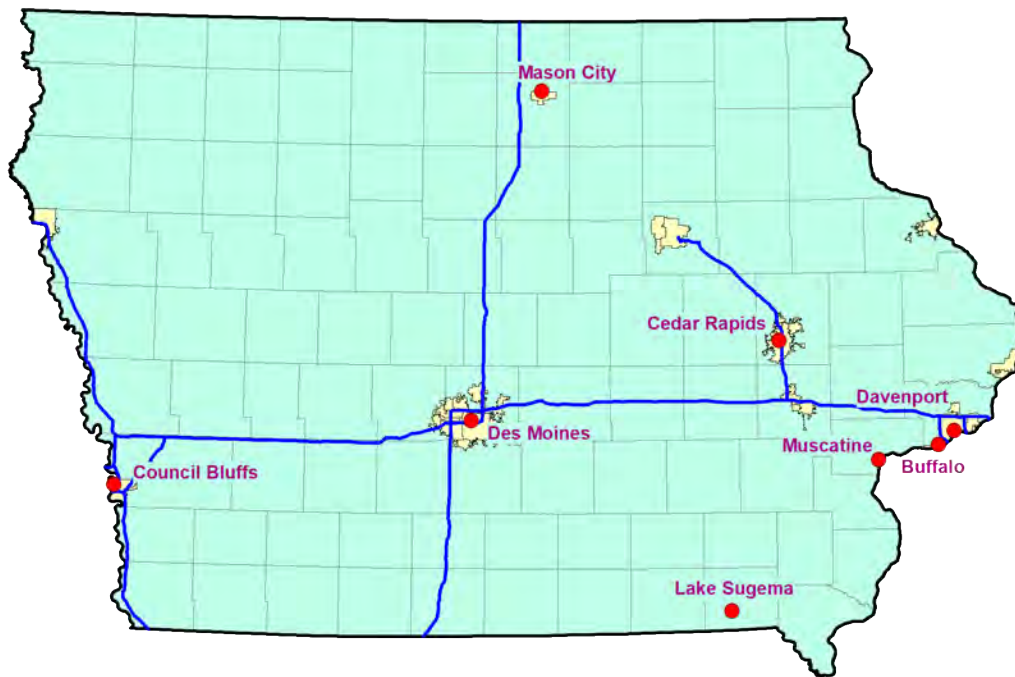
**Manual PM<sub>2.5</sub> (FRM) Monitoring Sites**



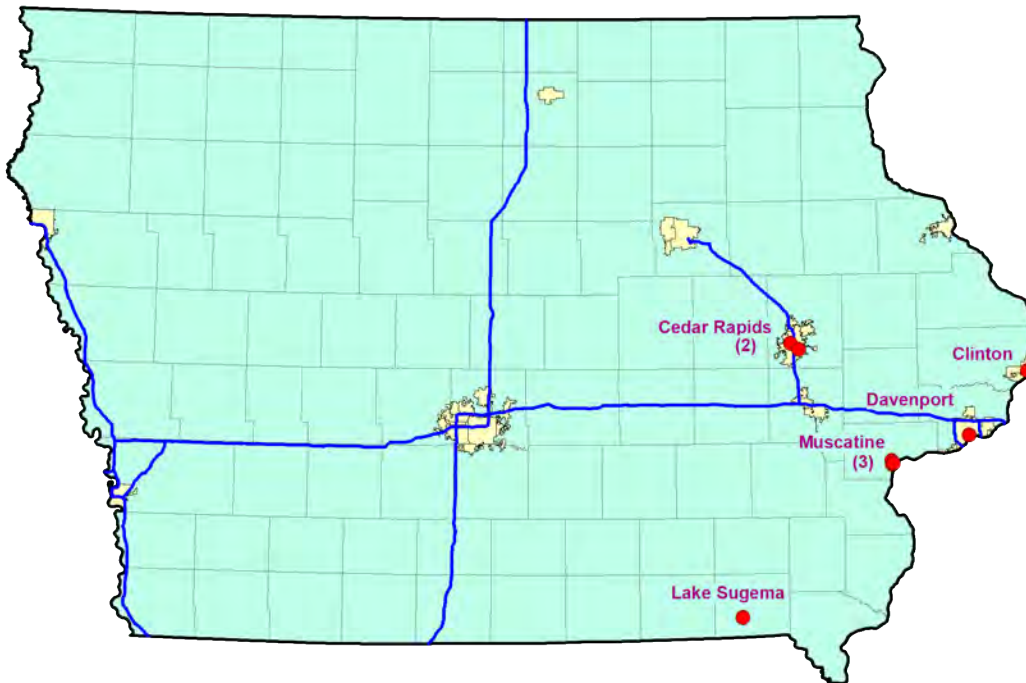
*Continuous PM<sub>2.5</sub> (non-FRM) Monitoring Sites*



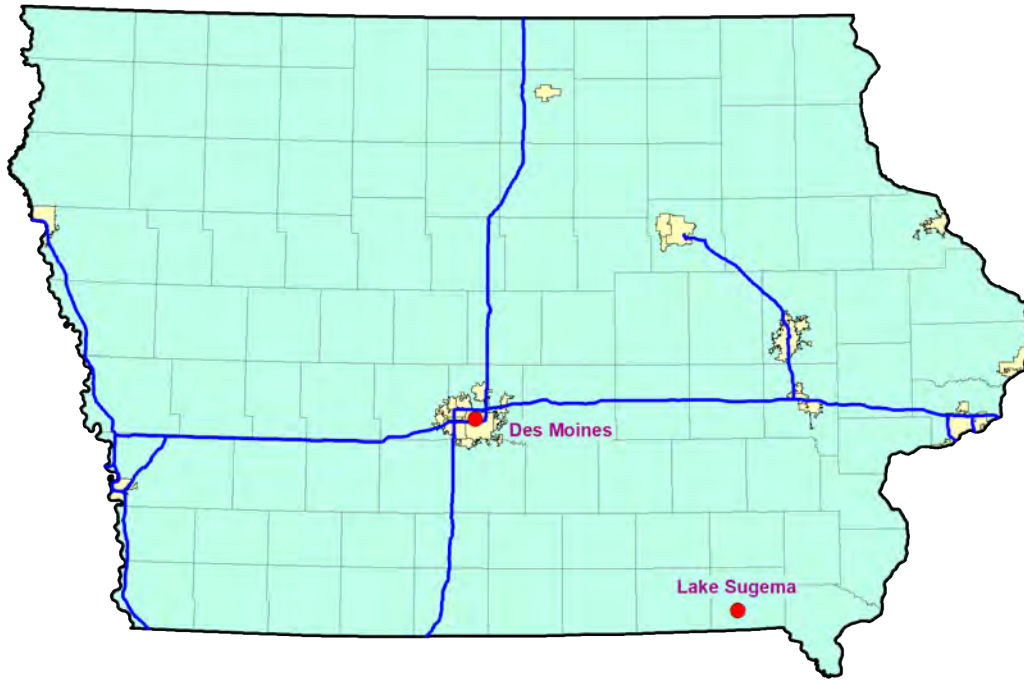
*Ozone Monitoring Sites*



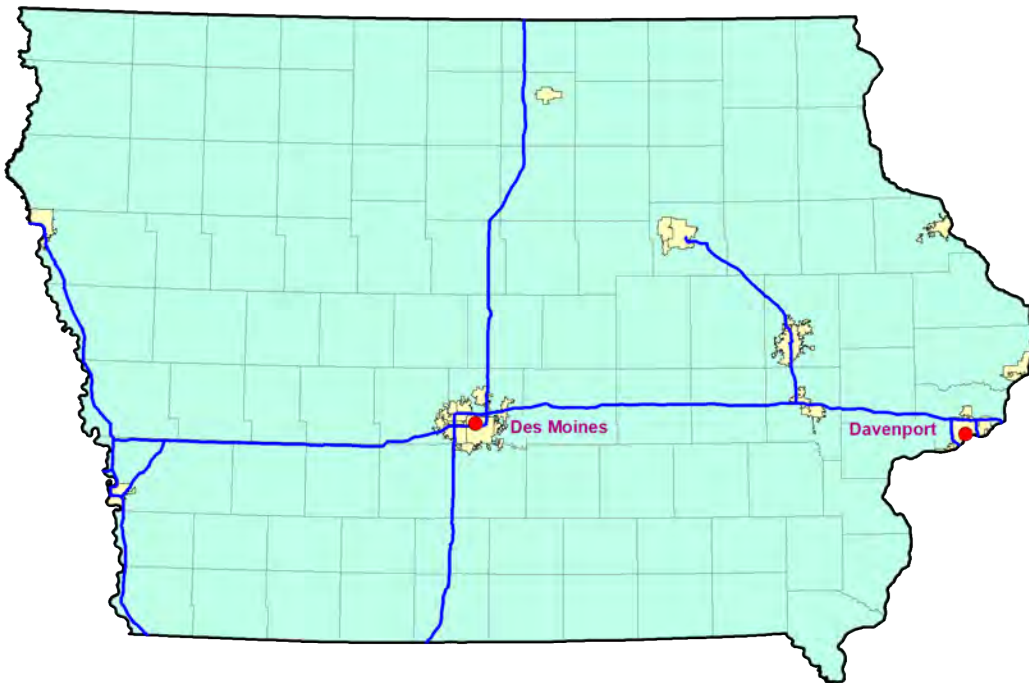
*PM<sub>10</sub> Monitoring Sites*



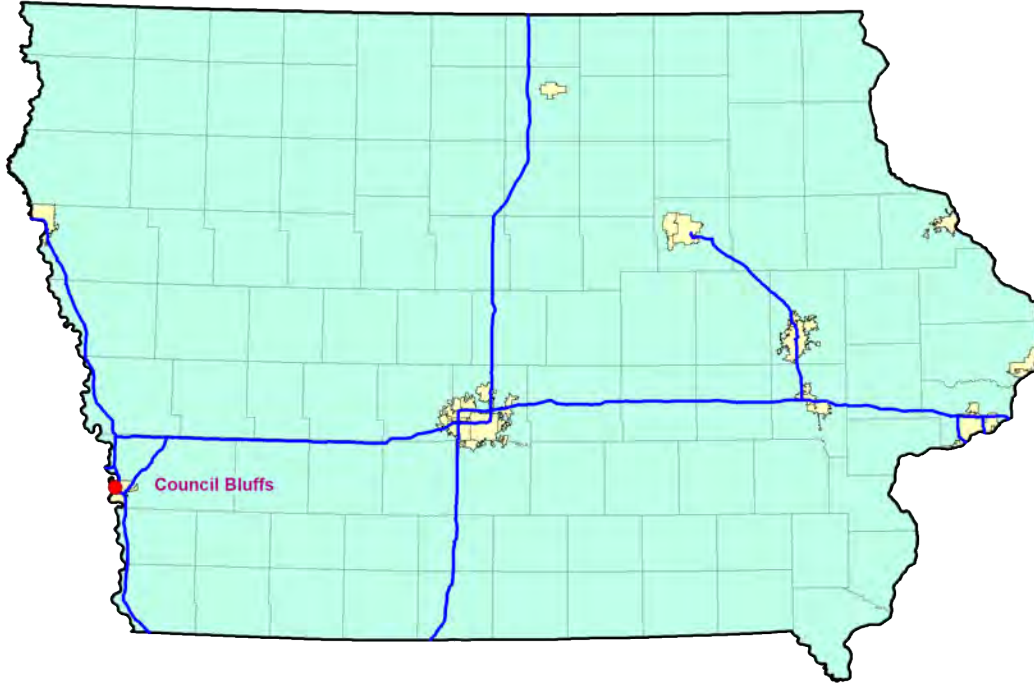
*SO<sub>2</sub> Monitoring Sites*



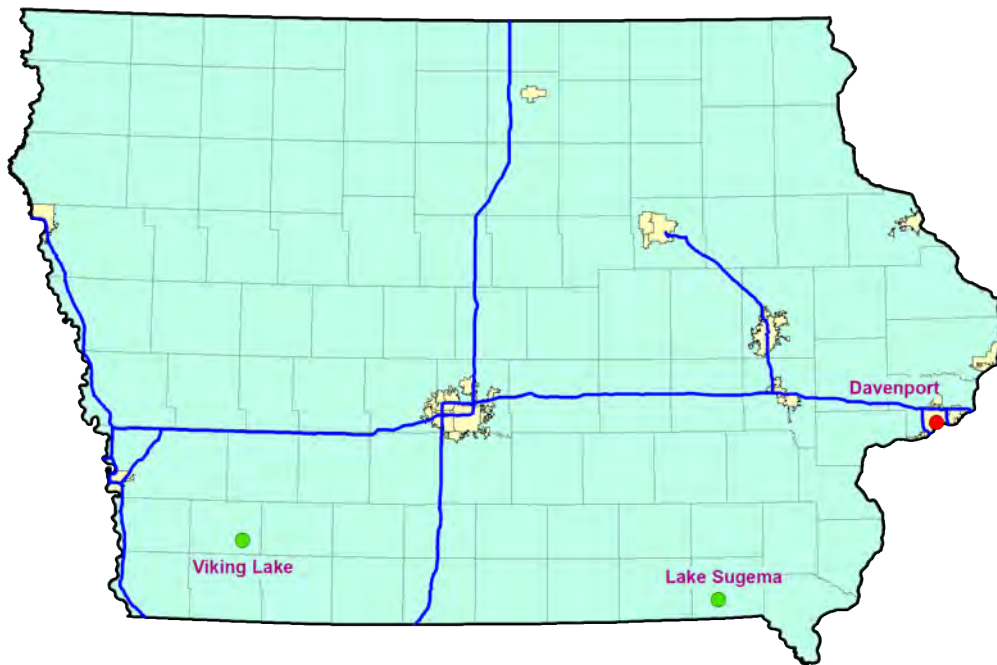
*NO<sub>2</sub> Monitoring Sites*



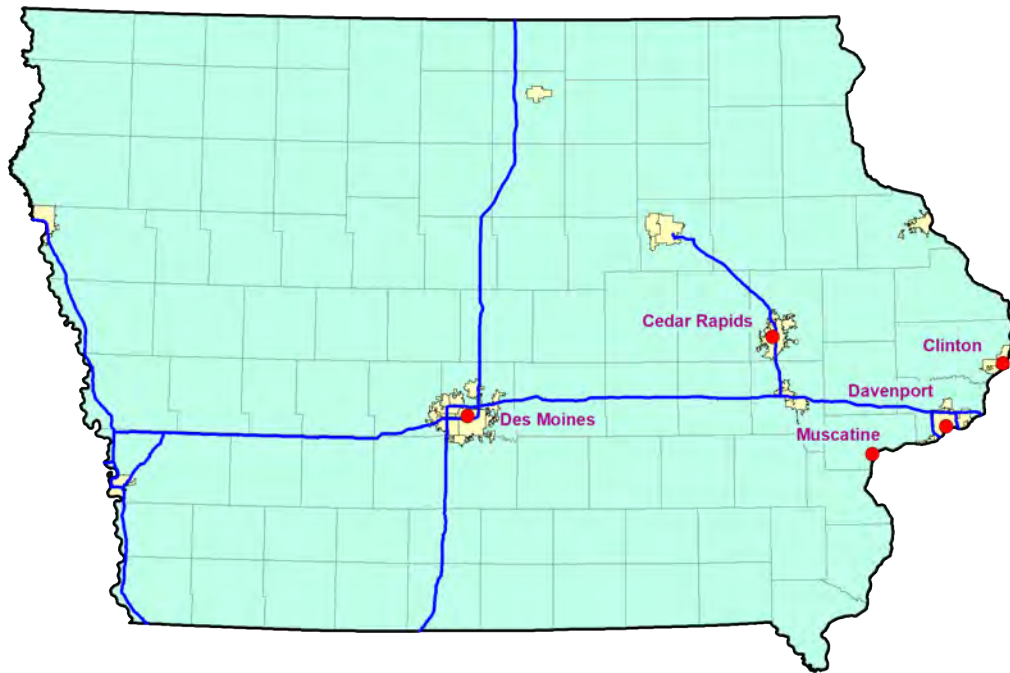
*CO Monitoring Sites*



*Lead (Pb) Monitoring Site*



*Speciation Monitoring Sites; CSN Speciation site is located at the red dot, IMPROVE speciation sites are located at the green dots.*



*Toxics Monitoring Sites*



## Appendix M: Network Changes

### SLAMs Network Changes

Based on the discussion in the [Introduction](#), and [Appendix K](#), there are no federal requirements for the SLAMs monitors at the sites below, and the DNR proposes to reclassify the following monitors from SLAMs to SPMs.

Site Name	AQS ID	Pollutant	POC	Analysis	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM/FEM	FRM/FEM Purpose	Action	Proposed Effective Date
Cedar Rapids, Public Health	191330040	PM2.5	3	Met One BAM	Continuous	Population Exposure	Neighborhood	No	Yes	Real-Time AQI Reporting	Convert SLAMs to SPM	1/1/18*
Waterloo, Water Tower	190130009	PM2.5	3	Met One BAM	Continuous	Population Exposure	Neighborhood	No	No		Convert SLAMs to SPM	1/1/19
Waterloo, Water Tower	190130009	PM2.5	4	Met One BAM	Continuous	Population Exposure	Neighborhood	No	No		Convert SLAMs to SPM	1/1/19

**Table M.1 SLAMs monitors proposed for conversion to SPM monitors**

\*See results in [App. K](#), showing that the 2018 data does not meet EPA equivalency criteria.

### Termination of SPM monitors

The reductions in the Iowa SPM network that are scheduled for January 1, 2020 are indicated in the table below:

Site Name	AQS Site ID	Pollutant	POC	Sampling Method	Operating Schedule	Primary Monitoring Objective	Spatial Scale	NAAQS Comparable?	FRM / FEM	FRM / FEM Purpose	Action
Des Moines, Health Dept.	191530030	CO	1	Non-Dispersive Infrared	Continuous	Population Exposure	Neighborhood	Yes	Yes	NAAQS Compliance	Deletion

**Table M.2 SPM monitors proposed for termination**

As indicated in the graphs below, the monitor scheduled for deletion recorded excellent data capture (see Figure M.2). It has also recorded ambient levels that are considerably less than the NAAQS (see Figure M.1). Specifically, Figure M.1 indicates that both the highest annual hourly, and the highest annual 8 hour block average, are less than 20% of the NAAQS. Termination of this monitor has been discussed with the Department's dispersion modeling staff and it was decided that it is not required for computation of background levels for dispersion modeling.

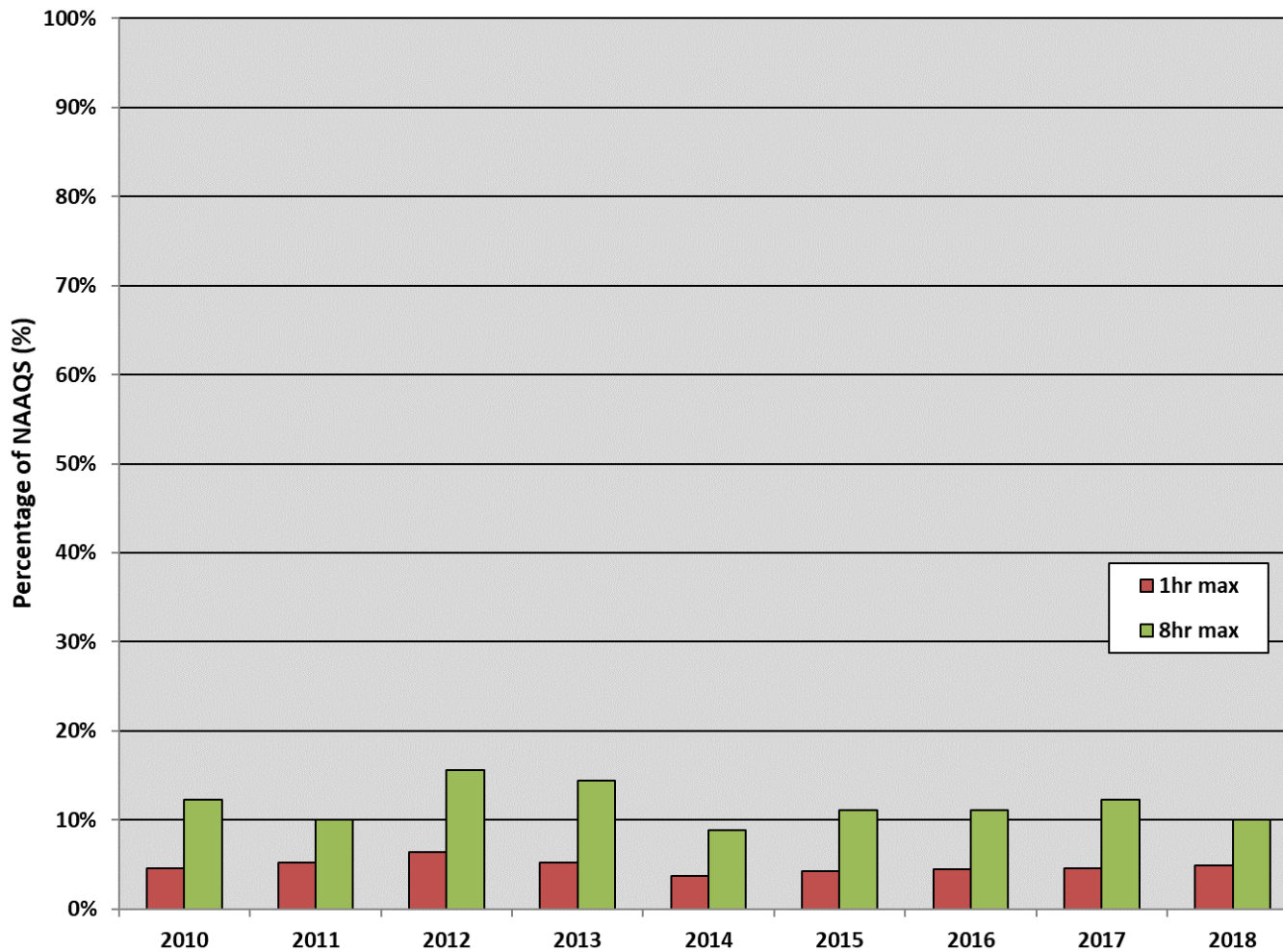


Figure M.1. Des Moines, Health Dept. Site CO monitor, Maximum 1-hr and 8-hr Values as a Percentage of the NAAQS. The 1-hr NAAQS is 35 ppm and the 8-hr NAAQS is 9 ppm.

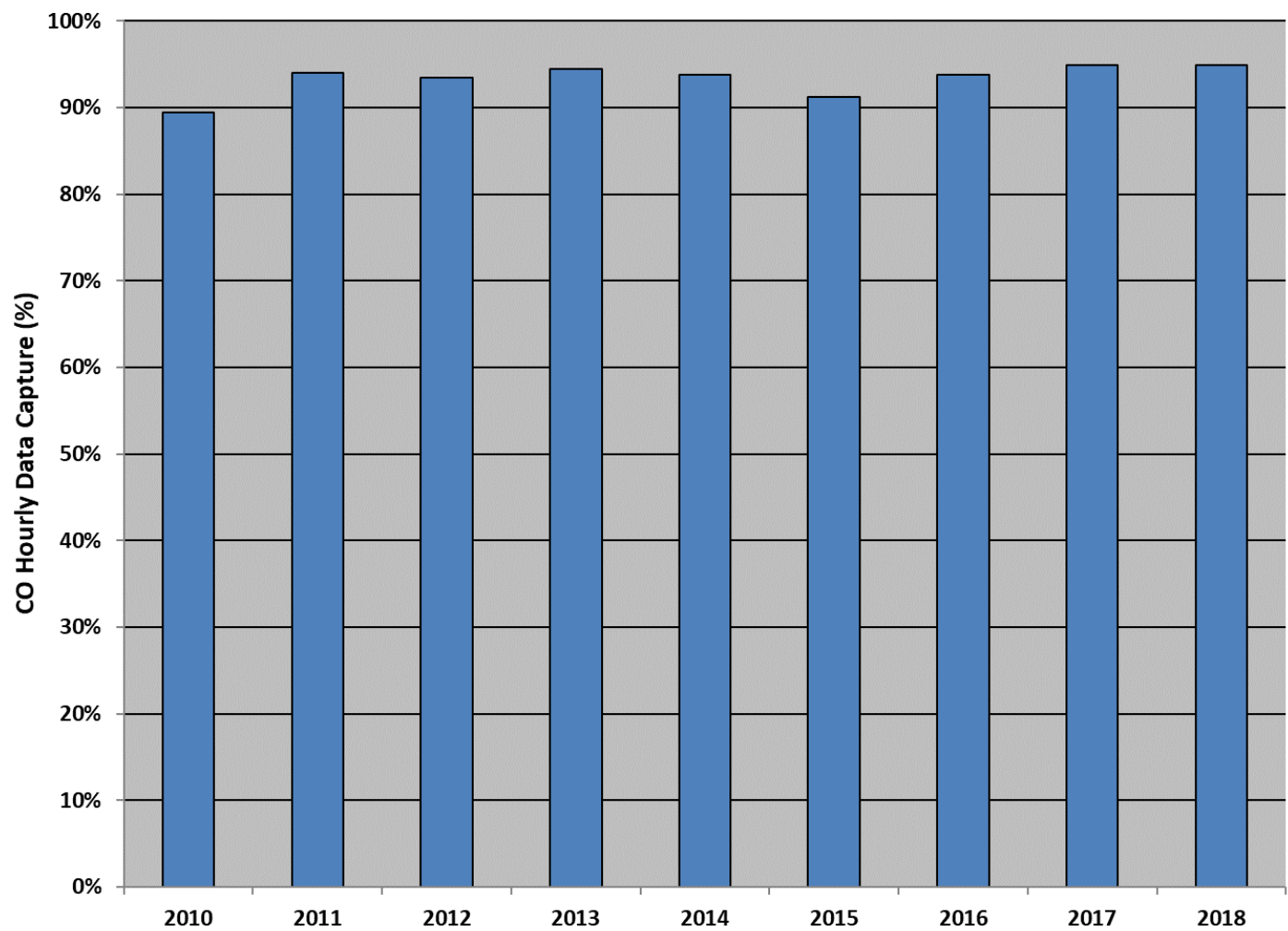
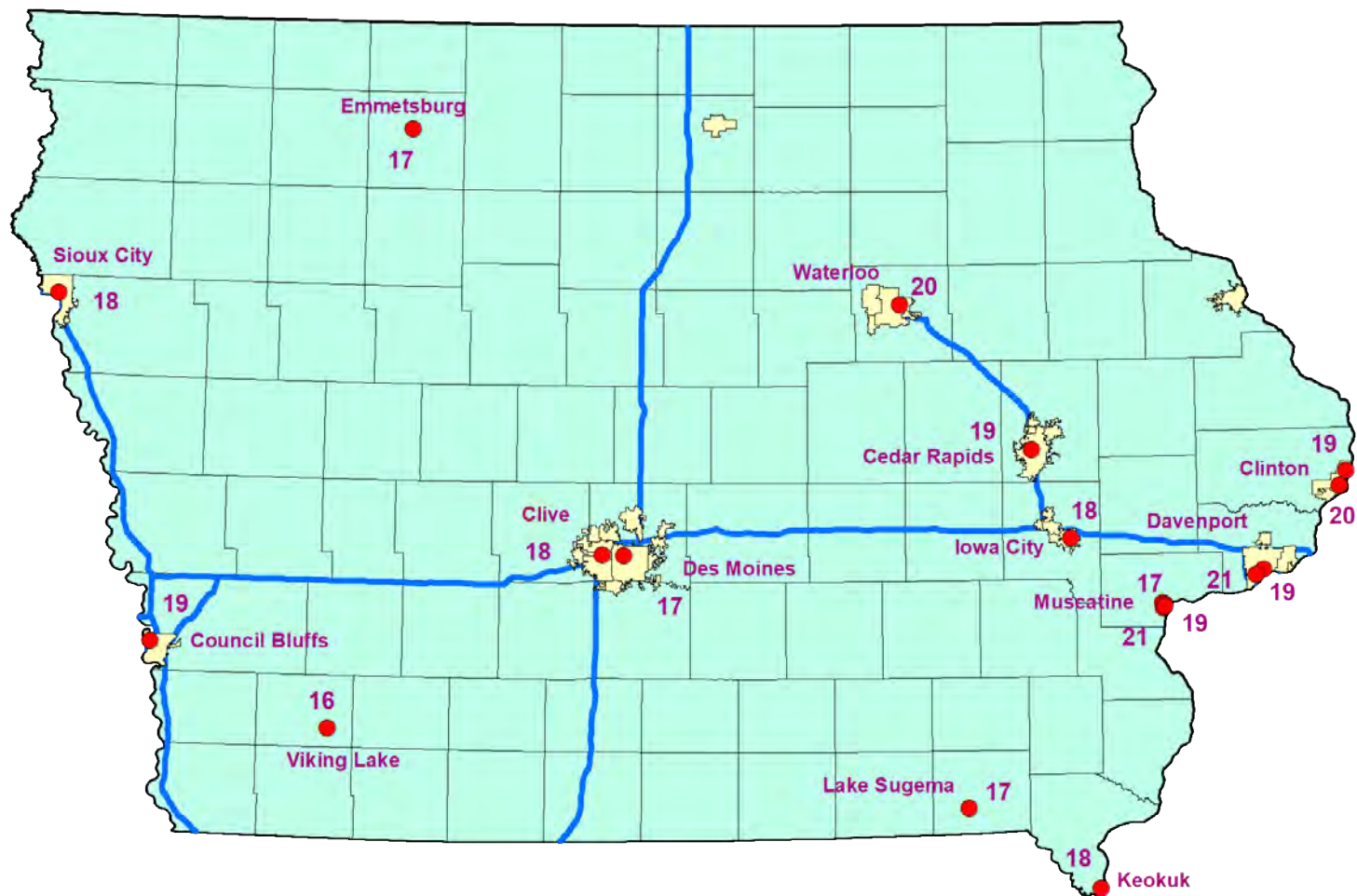
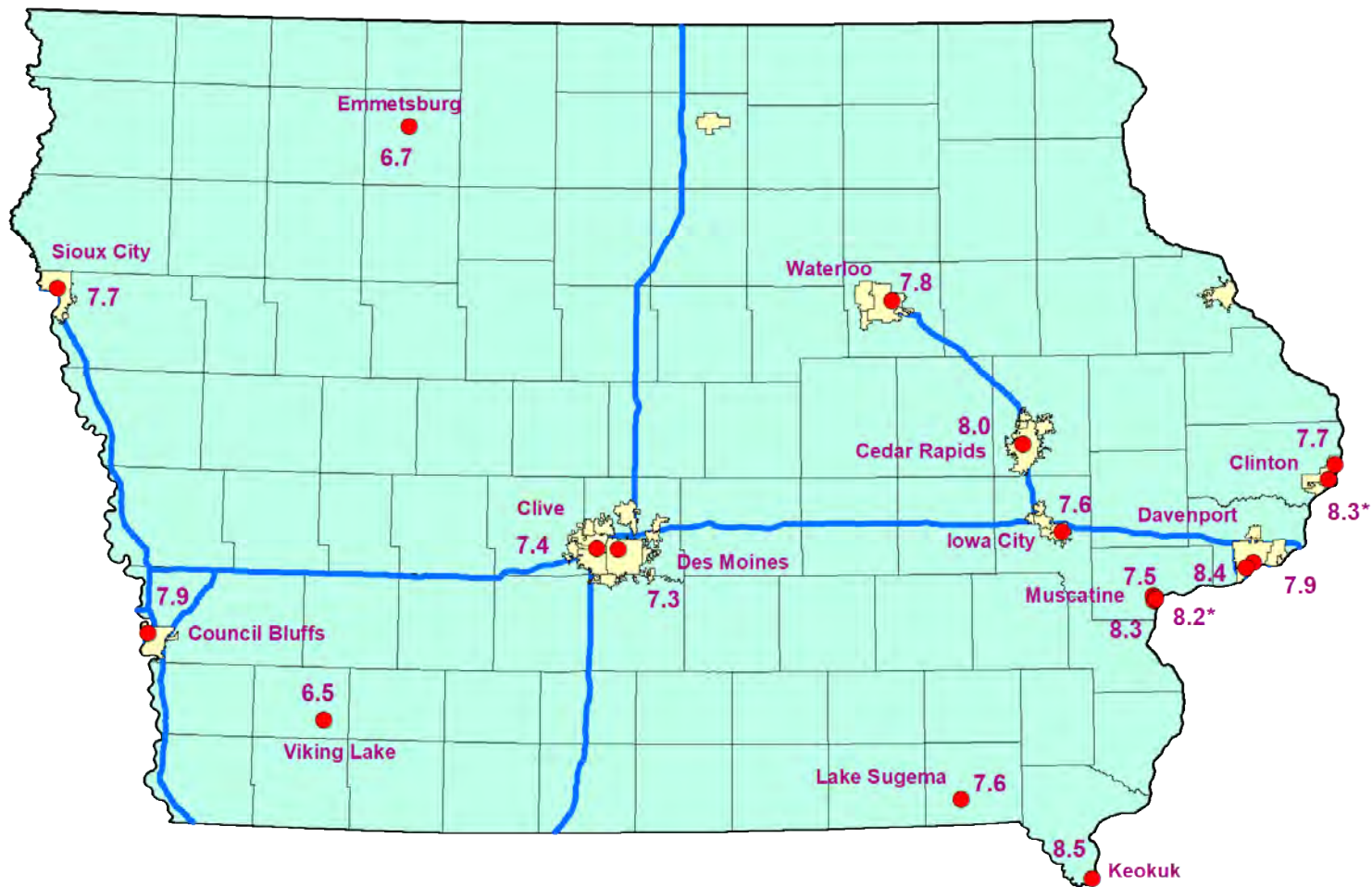


Figure M.2 Des Moines, Health Dept. Site CO monitor, Hourly Data Capture by Year

## Appendix N: 2018 Design Value Maps for PM<sub>2.5</sub>



2016-2018 PM<sub>2.5</sub> 24-hr Design Values (µg/m<sup>3</sup>)



**2016-2018 PM<sub>2.5</sub> Annual Design Values ( $\mu\text{g}/\text{m}^3$ )**

**Note: The asterisks indicate that this is a source-oriented site where the annual NAAQS does not apply.**

## ***Appendix O: Federal Requirements for NCore Sites***

### **40 CFR Part 58 Appendix D, Section 3: Design Criteria for NCore Sites.**

(a) Each State (i.e. the fifty States, District of Columbia, Puerto Rico, and the Virgin Islands) is required to operate at least one NCore site. States may delegate this requirement to a local agency. States with many MSAs often also have multiple air sheds with unique characteristics and, often, elevated air pollution. These States include, at a minimum, California, Florida, Illinois, Michigan, New York, North Carolina, Ohio, Pennsylvania, and Texas. These States are required to identify one to two additional NCore sites in order to account for their unique situations. These additional sites shall be located to avoid proximity to large emission sources. Any State or local agency can propose additional candidate NCore sites or modifications to these requirements for approval by the Administrator. The NCore locations should be leveraged with other multipollutant air monitoring sites including PAMS sites, National Air Toxics Trends Stations (NATTS) sites, CASTNET sites, and STN sites. Site leveraging includes using the same monitoring platform and equipment to meet the objectives of the variety of programs where possible and advantageous.

(b) The NCore sites must measure, at a minimum, PM<sub>2.5</sub> particle mass using continuous and integrated/filter-based samplers, speciated PM<sub>2.5</sub>, PM<sub>10-2.5</sub> particle mass, O<sub>3</sub>, SO<sub>2</sub>, CO, NO/NO<sub>y</sub>, wind speed, wind direction, relative humidity, and ambient temperature.

(1) Although the measurement of NO<sub>y</sub> is required in support of a number of monitoring objectives, available commercial instruments may indicate little difference in their measurement of NO<sub>y</sub> compared to the conventional measurement of NO<sub>x</sub>, particularly in areas with relatively fresh sources of nitrogen emissions. Therefore, in areas with negligible expected difference between NO<sub>y</sub> and NO<sub>x</sub> measured concentrations, the Administrator may allow for waivers that permit NO<sub>x</sub> monitoring to be substituted for the required NO<sub>y</sub> monitoring at applicable NCore sites.

(2) The EPA recognizes that, in some cases, the physical location of the NCore site may not be suitable for representative meteorological measurements due to the site's physical surroundings. It is also possible that nearby meteorological measurements may be able to fulfill this data need. In these cases, the requirement for meteorological monitoring can be waived by the Administrator.

(c) [Reserved]

(d) Siting criteria are provided for urban and rural locations. Sites with significant historical records that do not meet siting criteria may be approved as NCore by the Administrator. Sites with the suite of NCore measurements that are explicitly designed for other monitoring objectives are exempt from these siting criteria (e.g., a near-roadway site).

(1) Urban NCore stations are to be generally located at urban or neighborhood scale to provide representative concentrations of exposure expected throughout the metropolitan area; however, a middle-scale site may be acceptable in cases where the site can represent many such locations throughout a metropolitan area.

(2) Rural NCore stations are to be located to the maximum extent practicable at a regional or larger scale away from any large local emission source, so that they represent ambient concentrations over an extensive area.

## ***Appendix P: Federal Requirements for Near-Road Sites***

### **40 CFR Part 58 Appendix D—Network Design Criteria for Ambient Air Quality Monitoring**

#### *4.2 Carbon Monoxide (CO) Design Criteria*

4.2.1 General Requirements. (a) Except as provided in subsection (b), one CO monitor is required to operate collocated with one required near-road NO<sub>2</sub> monitor, as required in Section 4.3.2 of this part, in CBSAs having a population of 1,000,000 or more persons. If a CBSA has more than one required near-road NO<sub>2</sub> monitor, only one CO monitor is required to be collocated with a near-road NO<sub>2</sub> monitor within that CBSA.

(b) If a state provides quantitative evidence demonstrating that peak ambient CO concentrations would occur in a near-road location which meets microscale siting criteria in Appendix E of this part but is not a near-road NO<sub>2</sub> monitoring site, then the EPA Regional Administrator may approve a request by a state to use such an alternate near-road location for a CO monitor in place of collocating a monitor at near-road NO<sub>2</sub> monitoring site.

...

### **Appendix D to Part 58—Network Design Criteria for Ambient Air Quality Monitoring**

#### *4.3 Nitrogen Dioxide (NO<sub>2</sub>) Design Criteria*

##### 4.3.1 General Requirements

(a) State and, where appropriate, local agencies must operate a minimum number of required NO<sub>2</sub> monitoring sites as described below.

##### 4.3.2 Requirement for Near-road NO<sub>2</sub> Monitors

(a) Within the NO<sub>2</sub> network, there must be one microscale near-road NO<sub>2</sub> monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected maximum hourly concentrations sited near a major road with high AADT counts as specified in paragraph 4.3.2(a)(1) of this appendix. An additional near-road NO<sub>2</sub> monitoring station is required for any CBSA with a population of 2,500,000 persons or more, or in any CBSA with a population of 1,000,000 or more persons that has one or more roadway segments with 250,000 or greater AADT counts to monitor a second location of expected maximum hourly concentrations. CBSA populations shall be based on the latest available census figures.

(1) The near-road NO<sub>2</sub> monitoring sites shall be selected by ranking all road segments within a CBSA by AADT and then identifying a location or locations adjacent to those highest ranked road segments, considering fleet mix, roadway design, congestion patterns, terrain, and meteorology, where maximum hourly NO<sub>2</sub> concentrations are expected to occur and siting criteria can be met in accordance with appendix E of this part. Where a state or local air monitoring agency identifies multiple acceptable candidate sites where maximum hourly NO<sub>2</sub> concentrations are expected to occur, the monitoring agency shall consider the potential for population exposure in the criteria utilized to select the final site location. Where one CBSA is required to have two near-road NO<sub>2</sub> monitoring stations, the sites shall be differentiated from each other by one or more of the following factors: fleet mix; congestion patterns; terrain; geographic area within the CBSA; or different route, interstate, or freeway designation.

(b) Measurements at required near-road NO<sub>2</sub> monitor sites utilizing chemiluminescence FRMs must include at a minimum: NO, NO<sub>2</sub>, and NO<sub>x</sub>.

##### 4.3.3 Requirement for Area-wide NO<sub>2</sub> Monitoring

(a) Within the NO<sub>2</sub> network, there must be one monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected highest NO<sub>2</sub> concentrations representing the neighborhood or larger spatial scales. PAMS sites collecting NO<sub>2</sub> data that are situated in an area of expected high NO<sub>2</sub>

concentrations at the neighborhood or larger spatial scale may be used to satisfy this minimum monitoring requirement when the NO<sub>2</sub> monitor is operated year round. Emission inventories and meteorological analysis should be used to identify the appropriate locations within a CBSA for locating required area-wide NO<sub>2</sub> monitoring stations. CBSA populations shall be based on the latest available census figures.

#### 4.3.4 Regional Administrator Required Monitoring

(a) The Regional Administrators, in collaboration with States, must require a minimum of forty additional NO<sub>2</sub> monitoring stations nationwide in any area, inside or outside of CBSAs, above the minimum monitoring requirements, with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. The Regional Administrators, working with States, may also consider additional factors described in paragraph (b) below to require monitors beyond the minimum network requirement.

(b) The Regional Administrators may require monitors to be sited inside or outside of CBSAs in which:

(i) The required near-road monitors do not represent all locations of expected maximum hourly NO<sub>2</sub> concentrations in an area and NO<sub>2</sub> concentrations may be approaching or exceeding the NAAQS in that area;

(ii) Areas that are not required to have a monitor in accordance with the monitoring requirements and NO<sub>2</sub> concentrations may be approaching or exceeding the NAAQS; or

(iii) The minimum monitoring requirements for area-wide monitors are not sufficient to meet monitoring objectives.

(c) The Regional Administrator and the responsible State or local air monitoring agency should work together to design and/or maintain the most appropriate NO<sub>2</sub> network to address the data needs for an area, and include all monitors under this provision in the annual monitoring network plan.

#### 4.3.5 NO<sub>2</sub> Monitoring Spatial Scales

(a) The most important spatial scale for near-road NO<sub>2</sub> monitoring stations to effectively characterize the maximum expected hourly NO<sub>2</sub> concentration due to mobile source emissions on major roadways is the microscale. The most important spatial scales for other monitoring stations characterizing maximum expected hourly NO<sub>2</sub> concentrations are the microscale and middle scale. The most important spatial scale for area-wide monitoring of high NO<sub>2</sub> concentrations is the neighborhood scale.

(1) Microscale—This scale represents areas in close proximity to major roadways or point and area sources. Emissions from roadways result in high ground level NO<sub>2</sub> concentrations at the microscale, where concentration gradients generally exhibit a marked decrease with increasing downwind distance from major roads. As noted in appendix E of this part, near-road NO<sub>2</sub> monitoring stations are required to be within 50 meters of target road segments in order to measure expected peak concentrations. Emissions from stationary point and area sources, and non-road sources may, under certain plume conditions, result in high ground level concentrations at the microscale. The microscale typically represents an area impacted by the plume with dimensions extending up to approximately 100 meters.

(2) Middle scale—This scale generally represents air quality levels in areas up to several city blocks in size with dimensions on the order of approximately 100 meters to 500 meters. The middle scale may include locations of expected maximum hourly concentrations due to proximity to major NO<sub>2</sub> point, area, and/or non-road sources.

(3) Neighborhood scale—The neighborhood scale represents air quality conditions throughout some relatively uniform land use areas with dimensions in the 0.5 to 4.0 kilometer range. Emissions from stationary point and area sources may, under certain plume conditions, result in high NO<sub>2</sub> concentrations at the neighborhood scale. Where



a neighborhood site is located away from immediate NO<sub>2</sub> sources, the site may be useful in representing typical air quality values for a larger residential area, and therefore suitable for population exposure and trends analyses.

(4) Urban scale—Measurements in this scale would be used to estimate concentrations over large portions of an urban area with dimensions from 4 to 50 kilometers. Such measurements would be useful for assessing trends in area-wide air quality, and hence, the effectiveness of large scale air pollution control strategies. Urban scale sites may also support other monitoring objectives of the NO<sub>2</sub> monitoring network identified in paragraph 4.3.4 above.

#### 4.3.6 NO<sub>y</sub> Monitoring

(a) NO/NO<sub>y</sub> measurements are included within the NCore multi-pollutant site requirements and the PAMS program. These NO/NO<sub>y</sub> measurements will produce conservative estimates for NO<sub>2</sub> that can be used to ensure tracking continued compliance with the NO<sub>2</sub> NAAQS. NO/NO<sub>y</sub> monitors are used at these sites because it is important to collect data on total reactive nitrogen species for understanding O<sub>3</sub> photochemistry.

### **40 CFR Part 58 Appendix D—Network Design Criteria for Ambient Air Quality Monitoring**

#### *4.7 Fine Particulate Matter (PM<sub>2.5</sub>) Design Criteria.*

##### 4.7.1 General Requirements.

...

(b)(2) For CBSAs with a population of 1,000,000 or more persons, at least one PM<sub>2.5</sub> monitor is to be collocated at a near-road NO<sub>2</sub> station required in section 4.3.2(a) of this appendix.

## Appendix Q: Highest PM<sub>10</sub> Values in Iowa MSAs 2016-2018

The following table shows the highest values recorded by PM<sub>10</sub> monitors in Iowa Metropolitan Statistical Areas, including those shared with Illinois, South Dakota and Nebraska.

Table D-4 of Appendix D to Part 58 of the Code of Federal Regulations, specifies different minimum monitoring requirements for PM<sub>10</sub>, depending on whether the concentrations are high, medium, or low. High concentrations are defined as exceeding the PM<sub>10</sub> NAAQS by 20% or more (186 µg/m<sup>3</sup> or greater). Medium levels are defined as concentrations exceeding 80% of the NAAQS (between 124 and 186 µg/m<sup>3</sup>). If ambient concentrations are less than 80% of the PM<sub>10</sub> NAAQS, the levels are characterized as low. These categories are reflected in the last column of the following table.

MSA	2016 Max (µg/m <sup>3</sup> )	2017 Max (µg/m <sup>3</sup> )	2018 Max (µg/m <sup>3</sup> )	3 Year Max (µg/m <sup>3</sup> )	Classification
Omaha-Council Bluffs, NE-IA	151	120	104	151	Medium
Des Moines-West Des Moines, IA	43	65	48	65	Low
Davenport-Moline-Rock Island, IA-IL	120	110	123	123	Low
Cedar Rapids, IA	53	64	55	64	Low
Sioux City, IA-NE-SD	86	52	131	131	Medium

**PM<sub>10</sub> Values in MSAs (3 year maximum).** Note: POC2 FRM values are used for the Buffalo, IA monitoring site. This site records the highest PM<sub>10</sub> values in the Davenport-Moline-Rock Island, IA-IL MSA. See discussion in [Appendix K](#).

**Source:** [EPA Monitor Values Report](#)

## ***Appendix R: Federal Requirements for SO<sub>2</sub> Sites***

### **40 CFR Part 58 Appendix D — Network Design Criteria for Ambient Air Quality Monitoring**

#### *4.4 Sulfur Dioxide (SO<sub>2</sub>) Design Criteria.*

4.4.1 General Requirements. (a) State and, where appropriate, local agencies must operate a minimum number of required SO<sub>2</sub> monitoring sites as described below.

4.4.2 Requirement for Monitoring by the Population Weighted Emissions Index. (a) The population weighted emissions index (PWEI) shall be calculated by States for each core based statistical area (CBSA) they contain or share with another State or States for use in the implementation of or adjustment to the SO<sub>2</sub> monitoring network. The PWEI shall be calculated by multiplying the population of each CBSA, using the most current census data or estimates, and the total amount of SO<sub>2</sub> in tons per year emitted within the CBSA area, using an aggregate of the most recent county level emissions data available in the National Emissions Inventory for each county in each CBSA. The resulting product shall be divided by one million, providing a PWEI value, the units of which are million persons-tons per year. For any CBSA with a calculated PWEI value equal to or greater than 1,000,000, a minimum of three SO<sub>2</sub> monitors are required within that CBSA. For any CBSA with a calculated PWEI value equal to or greater than 100,000, but less than 1,000,000, a minimum of two SO<sub>2</sub> monitors are required within that CBSA. For any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO<sub>2</sub> monitor is required within that CBSA.

(1) The SO<sub>2</sub> monitoring site(s) required as a result of the calculated PWEI in each CBSA shall satisfy minimum monitoring requirements if the monitor is sited within the boundaries of the parent CBSA and is one of the following site types (as defined in section 1.1.1 of this appendix): population exposure, highest concentration, source impacts, general background, or regional transport. SO<sub>2</sub> monitors at NCore stations may satisfy minimum monitoring requirements if that monitor is located within a CBSA with minimally required monitors under this part. Any monitor that is sited outside of a CBSA with minimum monitoring requirements to assess the highest concentration resulting from the impact of significant sources or source categories existing within that CBSA shall be allowed to count towards minimum monitoring requirements for that CBSA.

4.4.3 Regional Administrator Required Monitoring. (a) The Regional Administrator may require additional SO<sub>2</sub> monitoring stations above the minimum number of monitors required in 4.4.2 of this part, where the minimum monitoring requirements are not sufficient to meet monitoring objectives. The Regional Administrator may require, at his/her discretion, additional monitors in situations where an area has the potential to have concentrations that may violate or contribute to the violation of the NAAQS, in areas impacted by sources which are not conducive to modeling, or in locations with susceptible and vulnerable populations, which are not monitored under the minimum monitoring provisions described above. The Regional Administrator and the responsible State or local air monitoring agency shall work together to design and/or maintain the most appropriate SO<sub>2</sub> network to provide sufficient data to meet monitoring objectives.

4.4.4 SO<sub>2</sub> Monitoring Spatial Scales. (a) The appropriate spatial scales for SO<sub>2</sub> SLAMS monitors are the microscale, middle, neighborhood, and urban scales. Monitors sited at the microscale, middle, and neighborhood scales are suitable for determining maximum hourly concentrations for SO<sub>2</sub>. Monitors sited at urban scales are useful for identifying SO<sub>2</sub> transport, trends, and, if sited upwind of local sources, background concentrations.

(1) Microscale—This scale would typify areas in close proximity to SO<sub>2</sub> point and area sources. Emissions from stationary point and area sources, and non-road sources may, under certain plume conditions, result in high ground level concentrations at the microscale. The microscale typically represents an area impacted by the plume with dimensions extending up to approximately 100 meters.

(2) Middle scale—This scale generally represents air quality levels in areas up to several city blocks in size with dimensions on the order of approximately 100 meters to 500 meters. The middle scale may include locations of

expected maximum short-term concentrations due to proximity to major SO<sub>2</sub> point, area, and/or non-road sources.

(3) Neighborhood scale—The neighborhood scale would characterize air quality conditions throughout some relatively uniform land use areas with dimensions in the 0.5 to 4.0 kilometer range. Emissions from stationary point and area sources may, under certain plume conditions, result in high SO<sub>2</sub> concentrations at the neighborhood scale. Where a neighborhood site is located away from immediate SO<sub>2</sub> sources, the site may be useful in representing typical air quality values for a larger residential area, and therefore suitable for population exposure and trends analyses.

(4) Urban scale—Measurements in this scale would be used to estimate concentrations over large portions of an urban area with dimensions from 4 to 50 kilometers. Such measurements would be useful for assessing trends in area-wide air quality, and hence, the effectiveness of large scale air pollution control strategies. Urban scale sites may also support other monitoring objectives of the SO<sub>2</sub> monitoring network such as identifying trends, and when monitors are sited upwind of local sources, background concentrations.

4.4.5 NCore Monitoring. (a) SO<sub>2</sub> measurements are included within the NCore multipollutant site requirements as described in paragraph (3)(b) of this appendix. NCore-based SO<sub>2</sub> measurements are primarily used to characterize SO<sub>2</sub> trends and assist in understanding SO<sub>2</sub> transport across representative areas in urban or rural locations and are also used for comparison with the SO<sub>2</sub> NAAQS. SO<sub>2</sub> monitors at NCore sites that exist in CBSAs with minimum monitoring requirements per section 4.4.2 above shall be allowed to count towards those minimum monitoring requirements.

\* \* \* \* \*

## ***Appendix S: SO<sub>2</sub> Data Requirements Rule***

### **Section I. 40 CFR Part 51, Subpart BB**

#### **Subpart BB—Data Requirements for Characterizing Air Quality for the Primary SO<sub>2</sub> NAAQS**

Source: 80 FR 51087, Aug. 21, 2015, unless otherwise noted.

##### **§51.1200 Definitions.**

The following definitions apply for the purposes of this subpart. All terms not defined herein will have the meaning given them in §51.100 or in the Clean Air Act (CAA). Air agency means the agency or organization responsible for air quality management within a state, local governmental jurisdiction, territory or area subject to tribal government. Annual SO<sub>2</sub> emissions data means the quality-assured annual SO<sub>2</sub> emissions data for a stationary source. Such data may have been required to be reported to the EPA in accordance with an existing regulatory requirement (such as the Air Emissions Reporting Rule or the Acid Rain Program); however, annual SO<sub>2</sub> emissions data may be obtained or determined through other reliable means as well.

Applicable source means a stationary source that is:

- (1) Not located in a designated nonattainment area, and
- (2) Has actual annual SO<sub>2</sub> emissions data of 2,000 tons or more, or has been identified by an air agency or by the EPA Regional Administrator as requiring further air quality characterization. 2010 SO<sub>2</sub> NAAQS means the primary National Ambient Air Quality Standard for sulfur oxides (sulfur dioxide) as codified at 40 CFR 50.17, as effective August 23, 2010.

##### **§51.1201 Purpose.**

The purpose of this subpart is to require air agencies to develop and submit air quality data characterizing maximum 1-hour ambient concentrations of SO<sub>2</sub> across the United States through either ambient air quality monitoring or air quality modeling analysis at the air agency's election. These monitoring and modeling data may be used in future determinations by the EPA regarding areas' SO<sub>2</sub> NAAQS attainment status, or for other actions designed to ensure attainment of the 2010 SO<sub>2</sub> NAAQS and provide protection to the public from the short-term health effects associated with exposure to SO<sub>2</sub> concentrations that exceed the NAAQS.

##### **§51.1202 Applicability.**

This subpart applies to any air agency in whose jurisdiction is located one or more applicable sources of SO<sub>2</sub> emissions that have annual actual SO<sub>2</sub> emissions of 2,000 tons or more; or in whose jurisdiction is located one or more sources of SO<sub>2</sub> emissions that have been identified by the air agency or by the EPA Regional Administrator as requiring further air quality characterization. For the purposes of this subpart, the subject air agency shall identify applicable sources of SO<sub>2</sub> based on the most recently available annual SO<sub>2</sub> emissions data for such sources.

##### **§51.1203 Air agency requirements.**

- (a) The air agency shall submit a list of applicable SO<sub>2</sub> sources identified pursuant to §51.1202 located in its jurisdiction to the EPA by January 15, 2016. This list may be revised by the Regional Administrator after review based on available SO<sub>2</sub> emissions data.
- (b) For each source area subject to requirements for air quality characterization, the air agency shall notify the EPA by July 1, 2016, whether it has chosen to characterize peak 1-hour SO<sub>2</sub> concentrations in such area through

ambient air quality monitoring; characterize peak 1-hour SO<sub>2</sub> concentrations in such area through air quality modeling techniques; or provide federally enforceable emission limitations by January 13, 2017 that limit emissions of applicable sources to less than 2,000 tpy, in accordance with paragraph (e) of this section, or provide documentation that the applicable source has permanently shut down. Emission limits in accordance with paragraph (e) of this section may be established in lieu of conducting monitoring or modeling unless, in the judgment of the air agency or the EPA Regional Administrator, the area warrants further air quality characterization even with the establishment of any new emission limit(s). If the air agency has chosen to establish requirements to limit emissions for applicable sources in an area, the notification from the air agency shall describe the requirements and emission limits the air agency intends to apply. For any area with multiple applicable sources, the air agency (or air agencies if a multi-state area) shall use the same technique (monitoring, modeling, or emissions limitation) for all applicable sources in the area. If multiple air agencies have applicable sources in an area, the air agencies must consult with each other to employ a common technique for the area.

(c) Monitoring. For each area identified in the notification submitted pursuant to paragraph (b) of this section as an area for which SO<sub>2</sub> concentrations will be characterized through ambient monitoring, the required monitors shall be sited and operated either as SLAMS or in a manner equivalent to SLAMS. In either case, monitors shall meet applicable criteria in 40 CFR part 58, appendices A, C, and E and their data shall be subject to data certification and reporting requirements as prescribed in 40 CFR 58.15 and 58.16. These requirements include quarterly reporting of monitoring data to the Air Quality System, and the annual certification of data by May 1 of the following year.

(1) The air agency shall include relevant information about monitors used to meet the requirements of this paragraph (c) in the air agency's Annual Monitoring Network Plan required by 40 CFR 58.10 due July 1, 2016. The air agency shall consult with the appropriate EPA Regional Office in the development of plans to install, supplement, or maintain an appropriate ambient SO<sub>2</sub> monitoring network pursuant to the requirements of 40 CFR part 58 and of this subpart.

(2) All existing, new, or relocated ambient monitors intended to meet the requirements of this paragraph (c) must be operational by January 1, 2017 and must be operated continually until approved for shut down by EPA.

(3) Any SO<sub>2</sub> monitor identified by an air agency in its approved Annual Monitoring Network Plan as having the purpose of meeting the requirements of this paragraph (c) that: Is not located in an area designated as nonattainment as the 2010 SO<sub>2</sub> NAAQS is not also being used to satisfy other ambient SO<sub>2</sub> minimum monitoring requirements listed in 40 CFR part 58, appendix D, section 4.4; and is not otherwise required as part of a SIP, permit, attainment plan or maintenance plan, may be eligible for shut down upon EPA approval if it produces a design value no greater than 50 percent of the 2010 SO<sub>2</sub> NAAQS from data collected in either its first or second 3-year period of operation. The air agency must receive EPA Regional Administrator approval of a request to cease operation of the monitor as part of the EPA's action on the Annual Monitoring Network Plan under 40 CFR 58.10 prior to shutting down any qualifying monitor under this paragraph (c).

(d) Modeling. For each area identified in the notification submitted pursuant to paragraph (b) of this section as an area for which SO<sub>2</sub> concentrations will be characterized through air quality modeling, the air agency shall submit by July 1, 2016, a technical protocol for conducting such modeling to the Regional Administrator for review. The air agency shall consult with the appropriate EPA Regional Office in developing these modeling protocols.

(1) The modeling protocol shall include information about the modeling approach to be followed, including but not limited to the model to be used, modeling domain, receptor grid, emissions dataset, meteorological dataset and how the air agency will account for background SO<sub>2</sub> concentrations.

(2) Modeling analyses shall characterize air quality based on either actual SO<sub>2</sub> emissions from the most recent 3 years, or on any federally enforceable allowable emission limit or limits established by the air agency or the EPA and that are effective and require compliance by January 13, 2017.

(3) Except as provided by §51.1204, the air agency shall conduct the modeling analysis for any applicable source identified by the air agency pursuant to paragraph (a) of this section, and for its associated area and any nearby area, as applicable, and submit the modeling analysis to the EPA Regional Office by January 13, 2017.

(e) Federally enforceable requirement to limit SO<sub>2</sub> emissions to under 2,000 tons per year. For each area identified in the notification submitted pursuant to paragraph (b) of this section as an area for which the air agency will adopt federally enforceable requirements in lieu of characterizing air quality through monitoring or modeling, the air agency shall submit documentation to the EPA by January 13, 2017, showing that such requirements have been adopted, are in effect, and been made federally enforceable by January 13, 2017, through an appropriate legal mechanism, and the provisions either:

(1) Require the applicable sources in the area to emit less than 2,000 tons of SO<sub>2</sub> per year for calendar year 2017 and thereafter; or

(2) Document that the applicable sources in the area have permanently shut down by January 13, 2017.

## **Appendix T: Sulfur Dioxide Population Weighted Emissions Index**

This SO<sub>2</sub> rule requires monitoring in or near Core Based Statistical Areas (CBSA's) based on the population weighted emissions index (PWEI). The PWEI is calculated using the most recent census data or estimates, and the most recent county level emissions data available in the National Emissions Inventory.

The PWEI is calculated by multiplying the population of the CBSA by the total tons of SO<sub>2</sub> emissions inventories from counties that make up the CBSA and dividing by one million. The PWEI is expressed in units of million person-tons per year.

The final monitoring regulations require monitors to be placed in Core Based Statistical Areas (CBSA's) based on the PWEI for the area. The final rule requires:

- 3 monitors in CBSAs with index values of 1,000,000 or more;
- 2 monitors in CBSAs with index values less than 1,000,000 but greater than 100,000; and
- 1 monitor in CBSAs with index values greater than 5,000 but less than 100,000.

Iowa has chosen the 2014 National Emissions Inventory (NEI) data<sup>60</sup> as the most complete and accessible data to use for SO<sub>2</sub> emissions information available for Iowa and neighboring States. U.S. Census Bureau population estimates from [Appendix F](#) have been used for population data. The PWEI for Iowa MSAs are listed in the table below.

<b>US Census Geographic Area</b>	<b>US Census Population Estimate, July, 2018</b>	<b>SO<sub>2</sub> Emissions, tons per year</b>	<b>SO<sub>2</sub> Population Weighted Emissions Index</b>	<b>SO<sub>2</sub> Monitors Required</b>
Omaha-Council Bluffs, NE-IA	942,198	26,750	25,204	1
Sioux City, IA-NE-SD	169,045	13,545	2,290	0
Davenport-Moline-Rock Island, IA-IL	381,451	5,393	2,057	0
Cedar Rapids, IA	272,295	7,362	2,005	0
Des Moines-West Des Moines, IA	655,409	451	296	0
Iowa City, IA	173,401	846	147	0
Ames, IA	98,105	1,233	121	0
Waterloo-Cedar Falls, IA	169,659	573	97	0
Dubuque, IA	96,854	40	4	0

<sup>60</sup> [EPA National Emissions Inventory](#)



## **Appendix U: Federal Requirements for Lead Sites**

### **40 CFR Part 58 Appendix D —Network Design Criteria for Ambient Air Quality Monitoring**

\*\*\*

#### 4.5 Lead (Pb) Design Criteria.

(a) State and, where appropriate, local agencies are required to conduct ambient air Pb monitoring near Pb sources which are expected to or have been shown to contribute to a maximum Pb concentration in ambient air in excess of the NAAQS, taking into account the logistics and potential for population exposure. At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 or more tons per year and from each airport which emits 1.0 or more tons per year based on either the most recent National Emission Inventory (<http://www.epa.gov/ttn/chief/eiinformation.html>) or other scientifically justifiable methods and data (such as improved emissions factors or site-specific data) taking into account logistics and the potential for population exposure.

(i) One monitor may be used to meet the requirement in paragraph 4.5(a) for all sources involved when the location of the maximum Pb concentration due to one Pb source is expected to also be impacted by Pb emissions from a nearby source (or multiple sources). This monitor must be sited, taking into account logistics and the potential for population exposure, where the Pb concentration from all sources combined is expected to be at its maximum.

(ii) The Regional Administrator may waive the requirement in paragraph 4.5(a) for monitoring near Pb sources if the State or, where appropriate, local agency can demonstrate the Pb source will not contribute to a maximum Pb concentration in ambient air in excess of 50 percent of the NAAQS (based on historical monitoring data, modeling, or other means). The waiver must be renewed once every 5 years as part of the network assessment required under §58.10(d).

(iii) State and, where appropriate, local agencies are required to conduct ambient air Pb monitoring near each of the airports listed in Table D-3A for a period of 12 consecutive months commencing no later than December 27, 2011. Monitors shall be sited to measure the maximum Pb concentration in ambient air, taking into account logistics and the potential for population exposure, and shall use an approved Pb-TSP Federal Reference Method or Federal Equivalent Method. Any monitor that exceeds 50 percent of the Pb NAAQS on a rolling 3-month average (as determined according to 40 CFR part 50, Appendix R) shall become a required monitor under paragraph 4.5(c) of this Appendix, and shall continue to monitor for Pb unless a waiver is granted allowing it to stop operating as allowed by the provisions in paragraph 4.5(a)(ii) of this appendix. Data collected shall be submitted to the Air Quality System database according to the requirements of 40 CFR part 58.16.

**Table D-3A Airports to be Monitored for Lead**

<b>Airport</b>	<b>County</b>	<b>State</b>
Merrill Field	Anchorage	AK
Pryor Field Regional	Limestone	AL
Palo Alto Airport of Santa Clara County	Santa Clara	CA
McClellan-Palomar	San Diego	CA
Reid-Hillview	Santa Clara	CA

<b>Airport</b>	<b>County</b>	<b>State</b>
Gillespie Field	San Diego	CA
San Carlos	San Mateo	CA
Nantucket Memorial	Nantucket	MA
Oakland County International	Oakland	MI
Republic	Suffolk	NY
Brookhaven	Suffolk	NY
Stinson Municipal	Bexar	TX
Northwest Regional	Denton	TX
Harvey Field	Snohomish	WA
Auburn Municipal	King	WA

(b) [Reserved]

(c) The EPA Regional Administrator may require additional monitoring beyond the minimum monitoring requirements contained in paragraph 4.5(a) of this appendix where the likelihood of Pb air quality violations is significant or where the emissions density, topography, or population locations are complex and varied. The EPA Regional Administrators may require additional monitoring at locations including, but not limited to, those near existing additional industrial sources of Pb, recently closed industrial sources of Pb, airports where piston-engine aircraft emit Pb, and other sources of re-entrained Pb dust.

# Appendix V: Lead (Pb) Emissions Inventory Memo

**Air Quality Bureau**

Memo

**To:** Sean Fitzsimmons

**From:** Nick Page

**CC:** Pete Zayudis, Brad Ashton, Lori Hanson, Brian Hutchins, Jim McGraw

**Date:** 12/18/2018

**Re:** Lead Emissions Inventory Narrative for 2019 Ambient Monitoring Network Plan

## Purpose of this Document

To identify facilities that reported actual lead emissions of greater than or equal to 0.25 tons of lead (Pb) per year for calendar year 2017. The actual lead emissions estimates, as estimated by DNR, are estimated using the most recent and best available set of facility-specific data that includes, but is not limited to, actual throughput, valid stack test data, dust analyses, engineering estimates, operating schedules, and control efficiencies.

## Introduction

The Environmental Protection Agency (EPA) finalized a revised standard for Pb on November 12, 2008. The standard was revised from 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of air, to  $0.15 \mu\text{g}/\text{m}^3$ . In conjunction with strengthening the lead NAAQS, EPA identified the need for states to improve existing lead monitoring networks by requiring monitors to be placed in areas with sources that have actual Pb emissions of 1.0 ton or more per year (tpy) and in urban areas with more than 500,000 people. States will base their specific siting decisions regarding Pb monitoring on dispersion modeling results and reviews of the existing emission inventories for Pb. On December 14, 2010, EPA signed an amendment to the lead ambient air monitoring requirement to expand the lead monitoring network. This amendment reduces the actual lead emissions threshold for the site specific monitoring requirement to 0.5 tons or more per year.

Table 1: Facilities included in the 2017 NEI submittal with actual emissions estimates of 0.25 tpy or greater.

Facility Name	Facility ID	2017 Actual Emissions (Tons)
Walter Scott Jr. Energy Center - Council Bluffs	78-01-026	0.324

# Agenda

## Environmental Protection Commission

Tuesday, June 18, 2019  
State of Iowa Capitol  
1007 East Grand Ave  
Room 116  
Des Moines, IA

**Tuesday, June 18, 2019**

10:00 AM – EPC Business Meeting

If you are unable to attend the business meeting, comments may be submitted to Jerah Sheets at [Jerah.Sheets@dnr.iowa.gov](mailto:Jerah.Sheets@dnr.iowa.gov) or 502 East 9th St, Des Moines IA 50319 up to one day prior to the business meeting for the public record.

1	Approval of Agenda	
2	Approval of the Minutes	
3	Monthly Reports	Ed Tormey (Information)
4	Acting Director's Remarks	Bruce Trautman (Information)
5	State Revolving Fund Loan Program Presentation	Theresa Enright Lori Beary (Information)
6	Clean Water and Drinking Water State Revolving Loan Fund – Intended Use Plan update	Theresa Enright (Decision)
7	Solid Waste Alternatives Program – Contract Recommendations	Tom Anderson (Decision)
8	Solid Environmental Management Systems Grant Award Recommendation	Tom Anderson (Decision)
9	Contract with the State Hygienic Laboratory for Laboratory Certification	Kathleen Lee (Decision)
10	Contract with University of Iowa on behalf of the State Hygienic Laboratory: 2020 SHL Services in Support of the DNR Air Quality Bureau	Sean Fitzsimmons (Decision)
11	Contract with THE UNIVERSITY OF IOWA on behalf of THE STATE HYGIENIC LABORATORY for Ambient Stream Biologic Monitoring Support	Roger Bruner (Decision)
12	Contract with THE UNIVERSITY OF IOWA on behalf of THE STATE HYGIENIC LABORATORY for Ambient Stream Monitoring Support	Roger Bruner (Decision)
13	Contract with the City of Des Moines (Yeader Creek Stream Improvements – Phase Two)	Kyle Ament (Decision)
14	Grant Agreement Amendment # 1 the original grant agreement with Region XII Council of Governments	Bill Blum (Decision)
15	Contract with the University of Northern Iowa, Iowa Waste Reduction Center (IWRC)	Bill Blum (Decision)

16	Contract with Iowa Association of Soil Conservations District Commissioners, dba Conservation Districts of Iowa	Jessica Montana (Decision)
17	Contract with the State Hygienic Laboratory for Manganese Environmental Monitoring and Laboratory Services	Anne Lynam (Decision)
18	2020 Contract with Linn County Air Quality Division: Air Pollution Control in Linn County	Christine Paulson (Decision)
19	2020 Contract with Polk County Air Quality Division: Air Pollution Control in Polk County	Christine Paulson (Decision)
20	2020 Contract University of Northern Iowa – Iowa Air Emissions Assistance Program (IAEAP): Small Business Assistance Program	Christine Paulson (Decision)
21	Administrative Law Judge Proposed Decision	David Scott (Decision)
22	General Discussion	
23	Items for Next Month’s Meeting <ul style="list-style-type: none"> <li>• Tuesday, July 16, 2019 – EPC Business Meeting – Des Moines</li> <li>• Tuesday, August 20, 2019 – EPC Business Meeting – Des Moines</li> </ul>	

For details on the EPC meeting schedule, visit <http://www.iowadnr.gov/About-DNR/Boards-Commissions>

<sup>1</sup>Comments during the public participation period regarding proposed rules or notices of intended action are not included in the official comments for that rule package unless they are submitted as required in the Notice of Intended Action.

Any person attending the public meeting and has special requirements such as those related to mobility or hearing impairments should contact the DNR or ADA Coordinator at 515-725-8200, Relay Iowa TTY Service 800-735-7942, or [Webmaster@dnr.iowa.gov](mailto:Webmaster@dnr.iowa.gov), and advise of specific needs.

**MINUTES OF THE  
ENVIRONMENTAL PROTECTION COMMISSION  
MEETING**

**May 21, 2019**

**State of Iowa Capitol Room 116  
1007 East Grand Ave, Des Moines, IA**

**Approved by the Commission **DATE****

DRAFT

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Sender's Initials jzs

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## Meeting Minutes

### CALL TO ORDER

The meeting of the Environmental Protection Commission was called to order by Chairperson Ralph Lents at 10:00 a.m. on May 21, 2019 at the State of Iowa Capitol in Des Moines, IA.

### COMMISSIONERS PRESENT

Amy Echard  
Stephanie Dykshorn  
Lisa Gochenour  
Rebecca Guinn  
Howard Hill  
Harold Hommes  
Tim Kaldenberg  
Ralph Lents  
Bob Sinclair

### COMMISSIONERS ABSENT

None

### APPROVAL OF AGENDA

*Motion was made by Bob Sinclair to approve the agenda as presented. Seconded by Lisa Gochenour. Motion passes.*

**AGENDA APPROVED**

### OATH OF OFFICE FOR NEW COMMISSIONER

Acting Division Administrator Ed Tormey swore in Amy Echard, Stephanie Dykshorn, and Tim Kaldenberg to the Commission. Each of the new Commissioners provided an introduction and background of themselves.

### ELECTION OF OFFICERS

#### CHAIR

*Bob Sinclair nominated Ralph Lents to be Chair. Seconded by Tim Kaldenberg. No other nominations were provided. A vote was conducted and passed unanimously by voting members.*

**RALPH LENTS, CHAIR**

#### VICE – CHAIR

*Howard Hill nominated Harold Hommes to be Vice- Chair. Seconded by Bob Sinclair. No other nominations were provided. A vote was conducted and passed unanimously by voting members.*

**HAROLD HOMMES, VICE-CHAIR**

#### SECRETARY

*Rebecca Guinn nominated Bob Sinclair to be Secretary. Seconded by Howard Hill . No other nominations were provided. A vote was conducted and passed unanimously by voting members.*

**BOB SINCLAIR, SECRETARY**

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**APPROVAL OF MINUTES**

*Motion was made by Howard Hill to approve the April 16, 2019 EPC minutes as presented. Seconded by Bob Sinclair. Motion passes.*

**APPROVED AS PRESENTED**

**MONTHLY REPORTS**

- Acting Division Administrator Ed Tormey shared with the Commission a summary of the quarterly reports and how the reports are utilized. Jason Marcel, Bureau Chief of the Field Services & Compliance Bureau, offered to gather additional information on the Hazardous Conditions Report.
- Acting Division Administrator Ed Tormey provided an update on various communities in Iowa that have been impacted by recent flooding. The DNR is aiding all the communities with post flood drinking water, wastewater, and solid waste disposal needs.
- Acting Division Administrator Ed Tormey informed the Commission the Air Quality fees would remain the same as last year. Earlier in the year, the Air Quality team provided an information notice of their review of the fees and engagement with their stakeholders to set the fees. The group concluded no change in the fees were needed.
- Acting Legislative Liaison Adam Schnieders provided a summary of the legislative session with the budget, DNR bills, and other outcomes of the session. He will be following up with a formal written summary for the DNR and EPC.
- Acting Division Administrator Ed Tormey provided a summary of the Department's contracting processes including the July-June fiscal year, contracts over \$25,000 reviewed by Commissioners, and the statutory relationship with the universities and other public agencies to provide services.
- The monthly report(s) has been posted on the DNR's website under the appropriate meeting month: <http://www.iowadnr.gov/About-DNR/Boards-Commissions>

**INFORMATION**

**ACTING DIRECTOR'S REMARKS**

- Acting Director Bruce Trautman shared with the Commission the Governor is conducting a nationwide search for a DNR Director. He believes the Department is doing well even with some vacancies because of the great staff in place. The Governor's rural Iowa initiative aligns with the Departments continued support of rural communities.
- Acting Director Bruce Trautman welcomed the new Commissioners and said he looked forward to working with them. He encouraged the new Commissioners to engage with technical staff as needed.

**INFORMATION**

Steve Hopkins, Watershed Improvement Coordinator, provided the Commission a summary of the program and distributed two handouts. One handout was a map of Iowa highlighting the 319 funding from the past year for watershed projects to aid in removing waters from the impaired waters list. The grant funds are distributed through contracts. The second handout was a fact sheet about the 319 watershed improvement program.

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**CONTRACT WITH IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP (IDALS) FOR IOWA GREAT LAKES WATERSHED PROJECT**

Steve Konrady presented a collaborative contract with IDALS for a watershed project in the Iowa Great Lakes. He provided a historical summary of the projects around the lake to improve water quality. The contract supports a local staff to engage with local landowners and match up funding with land restoration practices. With additional partners in Iowa and Minnesota, there is over \$1 million worth of effort for the Great Lakes.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Bob Sinclair to approve the agenda item as presented. Seconded by Howard Hill. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE OFFICE OF THE STATE ARCHAEOLOGIST (OSA) AT THE UNIVERSITY OF IOWA**

Steve Konrady presented the contract for archaeology services. He described the Department's efforts to streamline multiple contracts with OSA into one master agreement. With discussion from the Commission, projects which may exceed \$25,000 might result in alternative procurement options.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Harold Hommes to approve the agenda item as presented. Seconded by Rebecca Guinn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP (IDALS)**

Steve Hopkins presented a contract with IDALS for land practices in the watershed of Lake Geode State Park. Projects include reducing erosion in the gullies to slow or stop pollutants entering the lake. He explained the multi-year phases of watershed improvement work starting with the development of a plan to address and prioritize the options for reducing pollutants in a watershed. Private and public land owners can work on projects including but not limited to terraces, grass waterways, wetlands, cover crops, urban storm water, rain gardens, and more.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Howard Hill to approve the agenda item as presented. Seconded by Rebecca Guinn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP (IDALS)**

Steve Hopkins presented a contract with IDALS for a local watershed coordinator and urban practices. Urban practices include retention cells, rain barrels, and other projects not funded by other opportunities. The urban areas support watershed improvement activities with greater demand than resources available. Data collected by various entities aid in knowing that practices being put in place are making a positive

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impact to water quality. The city of Cedar Falls has ordinances in place for new construction to reduce rain water runoff.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Lisa Gochenour to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP (IDALS)**

Lee Wagner provided a summary of the State Revolving Fund (SRF) and the partnership with the Iowa Finance Authority. He presented a contract with IDALS for the administration and coordination of targeted CWSRF nonpoint source pollution control practices.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Harold Hommes to approve the agenda item as presented. Seconded by Bob Sinclair. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT AMENDMENT #1 WITH IOWA STATE UNIVERSITY GIS FACILITY**

Kathyne Clark summarized the GIS program and how DNR utilizes maps overlaid with data. She presented a contract with Iowa State University for student staff that can merge a teaching environment with a learning opportunity to obtain GIS services.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Lisa Gochenour. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE UNIVERSITY OF IOWA ON BEHALF OF THE STATE HYGIENIC LABORATORY, FOR THE CONTRACT TITLED, IDNR-SHL ENVIRONMENTAL MONITORING & LABORATORY SERVICES**

Jason Marcel presented a contract with the University of Iowa for laboratory services.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Lisa Gochenour to approve the agenda item as presented. Seconded by Harold Hommes. Motion passes.*

**APPROVED AS PRESENTED**

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**FINAL – CHAPTER 61 – WATER QUALITY STANDARDS (STREAM RECLASSIFICATIONS VIA USE ASSESSMENT AND USE ATTAINABILITY ANALYSES – BATCH #5)**

Matthew Dvorak presented final rules for batch 5 stream reclassifications. All streams are classified at the highest level and after analysis a more appropriate designation of the stream is applied. Roger Bruner, Water Monitoring Supervisor, stated the impaired waters list would not be impacted with the proper designation of these streams.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Howard Hill. Motion passes.*

**APPROVED AS PRESENTED**

**DERELICT BUILDING GRANT PROGRAM – GRANT RECOMMENDATIONS**

Scott Flagg provided a summary of the Derelict Building Grant program and how the program works. He presented grant recommendations for the derelict building grant program.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Harold Hommes to approve the agenda item as presented. Seconded by Amy Echard. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH THE UNIVERSITY OF IOWA ON BEHALF OF THE STATE HYGIENIC LABORATORY (SHL) FOR LABORATORY SERVICES PROVIDE TO THE IOWA DNR LAND QUALITY BUREAU**

Matt Culp provided a summary of the Contaminated Sites program and the work they conduct to prevent ground water pollution. He presented a contract with the University of Iowa to receive laboratory services.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Howard Hill to approve the agenda item as presented. Seconded by Stephanie Dykshorn. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT AMENDMENT # 3 TO CONTRACT 16ESDLQBGOLD1 WITH REGION XII COUNCIL OF GOVERNMENTS**

Leslie Goldsmith provided the Commission with an overview of the Environmental Management System voluntary program. She distributed two handouts about the program. She presented a contract amendment with the Region XII Council of Governments.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Tim Kaldenberg. Motion passes.*

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**APPROVED AS PRESENTED**

**CONTRACT AMENDMENT # 3 TO CONTRACT 15ESDLQBLGOLD WITH GRESHAM SMITH (FORMERLY GRESHAM, SMITH AND PARTNERS)**

Leslie Goldsmith presented a contract amendment with Gresham Smith.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Bob Sinclair. Motion passes.*

**APPROVED AS PRESENTED**

**CONTRACT WITH IOWA ASSOCIATION OF MUNICIPAL UTILITIES (IAMU)**

Laurie Sharp presented a contract with the IAMU. She shared how the Drinking Water program works with all communities and their unique needs and challenges. The contractor will provide focused resources to assist communities with their options and roles to address drinking water needs. Iowa is near the top of the nation with respect to compliance with drinking water standards. The program works to stay ahead of issues and to keep communities in compliance.

**Public Comments – None**

**Written Comments – None**

*Motion was made by Rebecca Guinn to approve the agenda item as presented. Seconded by Howard Hill. Motion passes.*

**APPROVED AS PRESENTED**

**GENERAL DISCUSSION**

- Commissioners provided recommendations for resources within their packet for contracts to aid them with review and oversight.
- Commissioner Bob Sinclair expressed his appreciation that the agency has kept operations moving forward during a time of various vacancies and team members in acting roles. He asked the Department to engage with the Commissioners if there is assistance or aid they can provide.
- Chairperson Lents thanked the Department for the coordination of a good educational field tour in April.
- Jerah Sheets provided upcoming meeting logistics and training options for new Commissioners.

David Steward from the Attorney General's Office provided an overview of the requirements for the EPC to enter into a Closed Session.

*Motion was made by Ralph Lents to go into closed session. In accordance with Iowa Code section 21.5(1)(c), I move that the Board go into closed session to discuss strategy with counsel on a matter presently in litigation or where litigation is imminent. This discussion must be held in closed session so as to not prejudice or disadvantage the position of the Commission in that matter. In addition to the Commissioners and counsel, Jerah Sheets will need to be present to keep detailed minutes of all discussion, persons present, and*

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*action occurring at the closed session, and he shall also audio record all of the closed session to discuss litigation strategy with counsel. Seconded by Harold Homes.*

*Tim Kaldenberg-yea, Stephanie Dykshorn-yea, Bob Sinclair-yea, Harold Hommes-yea, Rebecca Guinn-yea, Amy Echard-yea, Howard Hill-yea, Lisa Gochenour-yea, and Ralph Lents-yea. Motion passes.*

**CLOSED SESSION BEGAN AT 12:36 PM**

*Motion was made by Bob Sinclair to exit the closed session. Seconded by Howard Hill.*

*Tim Kaldenberg-yea, Stephanie Dykshorn-yea, Bob Sinclair-yea, Harold Hommes-yea, Rebecca Guinn-yea, Amy Echard-yea, Howard Hill-yea, Lisa Gochenour-yea, and Ralph Lents-yea. Motion passes.*

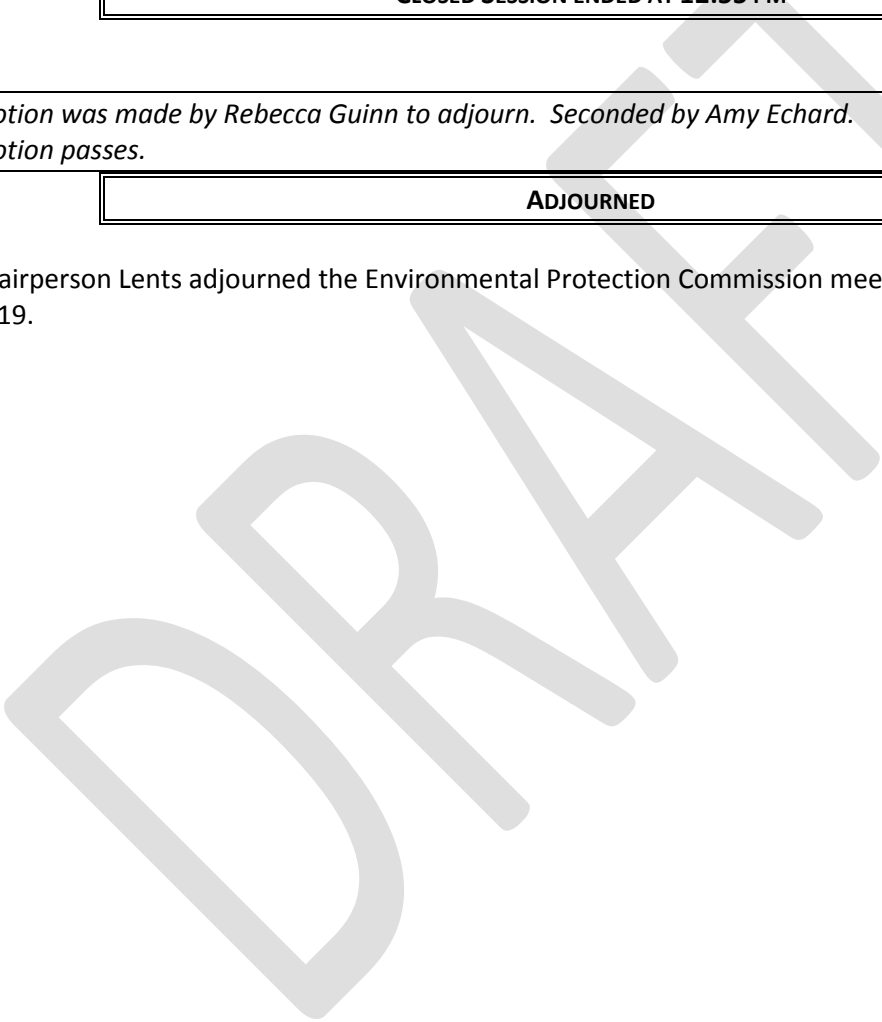
**CLOSED SESSION ENDED AT 12:55 PM**

*Motion was made by Rebecca Guinn to adjourn. Seconded by Amy Echard.*

*Motion passes.*

**ADJOURNED**

Chairperson Lents adjourned the Environmental Protection Commission meeting at 12:57 p.m. on May 21, 2019.



### Monthly Variance Report

April 2019

Item #	DNR Reviewer	Facility/City	Program	Subject	Decision	Date	Agency Reference
1	Eric Wiklund	North Winneshiek Comm. School	Wastewater	The variance being requested is to allow the use of actual water use data instead of the conservative per capita design values in	approved	4/1/19	19cpv098
2	Matt Phoenix	UNIVERSITY WATER SYSTEM	Water Supply Construction	A variance from requirements to construct conflicting storm sewers of water main material where horizontal and crossing	approved	4/1/19	19wcv099
3	Jason Christopherson	Continental Cement	Air Quality	Waiver of Initial Stack Test Requirement.	approved	4/1/19	19aqv100
4	Jason Christopherson	Refractory & Insulation	Air Quality	Waiver of Initial Stack Test Requirement.	approved	4/3/19	19aqv101
5	Reid Bermel	Koch Fertilizer, LLC	Air Quality	Koch Fertilizer has requested a variance to temporarily install and	approved	4/5/19	19aqv102
6	Michael Hermsen	Van Diest Supply	Air Quality	Waiver of Initial Stack Test Requirement.	approved	4/5/19	19aqv103
7	John Curtin	Primghar Municipal	Air Quality	Waiver of Initial Stack Test Requirement for two existing	approved	4/5/19	19aqv104
8	Michael Hermsen	Van Diest Supply Company	Air Quality Construction Permit	Waiver of Initial Stack Test Requirement.	approved	4/5/19	19aqv105
9	Marty Jacobs	St Lucas	Wastewater	St. Lucas is requesting a variance from the Iowa Wastewater Facilities Design Standards Chapter 12 – Sewer Systems – 12.5.7.1(c) (Cleanouts) for installing a cleanout in place of a manhole on a gravity sewer line with a length of 236 feet.	approved	4/3/19	19cpv106
10	Sara Smith	City of Cedar Rapids	Water Supply Construction	Existing right-of-way & property line does not allow the city to maintain the required 10' horizontal separation between a water main and a storm sewer. Proposing DIP with nitrile gaskets water main, 6' from storm sewer.	approved	4/4/19	19wcv107
11	Michael W. Smith	Muscatine County Sanitary Landfill	Sanitary Disposal	Landfill requests a change to well abandonment rules for one monitoring well MW-19. The monitoring well will be filled with grout from the base of the well, approximately 100 ft to the surface and then overdrilled/grouted below water table.	approved	4/8/19	19sdv108
12	Jason Christopherson	John Deere Davenport	Air Quality	Waiver of Initial Stack Test Requirement.	approved	4/9/19	19aqv109
13	Matt Phoenix	Denison Municipal Utilities	Water Supply Construction	A variance from requirements to construct conflicting storm sewers of water main material where sewer/water main separations cannot be obtained by constructing water main of DIP w/ nitrile gaskets.	approved	4/9/19	19wcv110
14	Karen Kuhn	The Schebler Co	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	approved	4/10/19	19aqv111
15	Marty Jacobs	Des Moines WRF	Wastewater	The City of Waukee is requesting variance from the Iowa Wastewater Facilities Design Standards Chapter 12 – Iowa Standards for Sewer Systems – 12.6 (Details of Construction) for the installation of a trunk sewer by directional drilling.	approved	4/12/19	19cpv112
16	Marty Jacobs	West Bend	Wastewater	The City of West Bend is requesting variance from the Iowa Wastewater Facilities Design Standards Chapter 12 – Iowa Standards for Sewer Systems – 12.6 (Details of Construction) for the installation of an HDPE gravity sewer by directional drilling.	approved	4/12/19	19cpv113



17	Tara Naber	Georgia Pacific Gypsum LLC	Water Supply Construction	Request to install greensand pressure filter with filtration rate above 4 gpm per square foot filter area on a side stream loop that feeds a chlorine analyzer in order to reduce iron interference to the analyzer. PWSID IA 9433188, project W2018-0152.	approved	4/15/19	19wcv114
18	Sara Smith	Prospect Meadows	Water Supply Construction	Petitioner request variance from separation of deep well to existing storm sewer at 87 feet. Instead of replacing storm sewer with sanitary sewer pipe, they will double the thickness of the cement grout of the well from 1.5" to 3.0" over casing.	approved	4/15/19	19wcv115
19	Reid Bermel	Cargill, Inc. - Eddyville	Air Quality	Cargill wants to bring in and operate three - 99.9 mmBtu/hr temporary boilers without obtaining a construction permit.	approved	4/18/19	19aqv116
20	John Curtin	Gregory Manufacturing	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement for welders and a plasma table.	approved	4/18/19	19aqv117
21	Karen Kuhn	John Deere Paton	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	approved	4/22/19	19aqv118
22	Larry Bryant	City of Mount Vernon WWTF	Wastewater Construction	A variance from the minimum 25-foot site separation distance from treatment surfaces and property lines and rights-of-way.	approved	4/22/19	19cpv119
23	Reid Bermel	Linwood Mining & Minerals Corp.	Air Quality Bureau	Linwood facility wants to temporarily extend barge loading hours (additional loading from 9 p.m. to midnight) without obtaining a construction permit.	approved	4/23/19	19aqv120
24	Ashley Dvorak	Pella Corporation - Sioux Center Operation	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	approved	4/24/19	19aqv121
25	Danjin Zulic	Darling Ingredients, Inc.	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	approved	4/25/19	19aqv122
26	Jason Christopherson	Guttenberg Industries, Inc.	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	approved	4/29/19	19aqv123
27	Danjin Zulic	Norris Asphalt Paving Company	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	approved	4/29/19	19aqv124
28	Matt Phoenix	Des Moines Water	Water Supply	A variance from requirements to construct conflicting storm	approved	4/26/19	19wcv125
29	Julie Duke	Koch Fertilizer Ft Dodge	AQ	Request to operator five (5) diesel-fired generators from May 20, 2019 through June 27, 2019 for maintenance activities during turnaround.	approved	3/29/19	19aqv126

# STATE REVOLVING FUND (SRF)

## Investing in Iowa's Water



INVESTING IN IOWA'S WATER  
[www.iowasrf.com](http://www.iowasrf.com)

# SRF Background

The Clean Water Act was amended in 1987 creating the Clean Water State Revolving Fund (CWSRF)

- Federal regulations were developed around 1989
- Iowa made its first CWSRF loan in 1990

The Safe Drinking Water Act (SDWA) was amended in 1996 creating the Drinking Water State Revolving Fund (DWSRF).

- Iowa made its first DWSRF loan in 2000



# SRF Background

Purpose was to replace a construction grants program with a loan fund

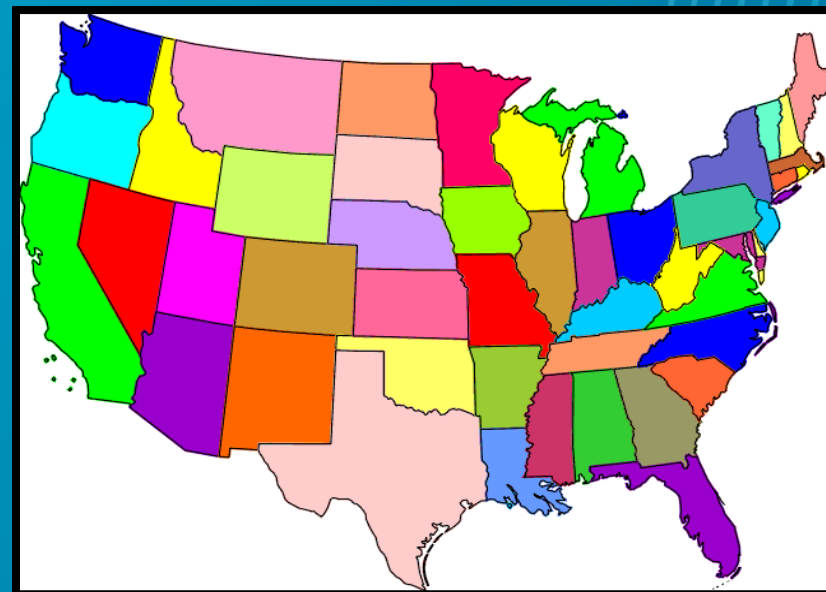
- Create a permanent source of low-cost funds for wastewater infrastructure projects

***“Funds in the SRF shall not be used to provide grants. SRF balances must be available in perpetuity and must be used solely to provide loans and other authorized forms of financial assistance...” (40 CFR 35.3115)***



# SRF Background

- Framework and eligibility set by federal law
- Each state can set its own priorities and structure



# Jointly Administered

**Iowa Code:** *“The program shall be a joint and cooperative undertaking of the department and the authority.”*

- **Iowa Department of Natural Resources**

- Project eligibility and design approval
- Project planning and permitting
- Environmental review
- Federal compliance

- **Iowa Finance Authority**

- Financial management
- Bond issues
- Loan approvals and disbursements
- Davis-Bacon Wage Determination



INVESTING IN IOWA'S WATER  
[www.iowasrf.com](http://www.iowasrf.com)

# State Revolving Fund Organizational Structure -- Iowa

Kim Reynolds, *Iowa Governor*

Mike Naig, *Iowa Secretary of Agriculture*

Bruce Trautman  
*Dep't of Natural Resources  
Acting Director*

Jennifer Nelson  
*Acting Deputy Director for ESD*

Ed Tormey  
*Environmental Services  
Acting Division Administrator*

Jennifer Nelson, *Chief  
Budget and Grants*

Alex Moon, *Chief  
Acting Water Quality  
Bureau*

Shirley Christoffersen,  
*Grant Manager*

Theresa Enright,  
*DNR SRF  
Coordinator/Team  
Leader*

Deb Durham, *Iowa Finance  
Authority Director*

Lori Beary,  
*IFA SRF Coordinator*

Tracy Scebold,  
*SRF Finance Officer*

Alyson Fleming,  
*Program  
Specialist*

Jane Larson, *Linked  
Deposit  
Administrator*

*Iowa Department of  
Agriculture and Land  
Stewardship*  
Tony Toigo, *Local Water  
Protection, Livestock  
Water Quality Facilities*  
Amy Bouska, Paul Miller,  
Derek Namanny, Hannah  
Vorrie, Jennifer Welch,  
*Urban Conservation and  
Sponsored Projects*

Erik Wiklund,  
*Supv., NPDES*

Satya Chennupati,  
*Supv. Wastewater  
Engineering*

Corey McCoid,  
*Supv., Water  
Supply Operations*

Mark Moeller, *Supv.,  
Water Supply  
Engineering*

Dan Olson  
*On-Site Wastewater  
Program*


Jim Oppelt, *CWSRF  
Team Leader*  
Tim Bauer, Larry  
Bryant, Marty Jacobs,  
Terry Kirschenman,  
Laura Knispel, Emy  
Liu, Justin Pettit,  
Suresh Kumar  
*CWSRF Project  
Managers*  
Gina Andre, *Admin.*


Jean Mayne,  
Tiffany Wilson  
Lillard, Michael  
Sullivan, Karrie  
Darnell  
*Environmental  
Review/Sponsored  
Projects*  
Lee Wagner,  
*Nonpoint Program  
Planner*  
Amy Seyffer  
*Admin.*

Taroon Bidar, Gabe  
Lee and Bob  
Campbell, *DWSRF  
Team Leaders*  
Michael Anderson,  
Lanie Boas,  
Tara Naber, Skipp  
Slattenow,  
Sara Smith  
*DWSRF Project  
Managers*

 *SRF financial  
functions*

 *Clean Water SRF*

 *Drinking Water SRF*

 *Clean Water and  
Drinking Water SRF*

# State Revolving Fund (SRF)

The SRF is one of Iowa's primary sources of financing for drinking water and wastewater infrastructure, storm water quality, and nonpoint source protection



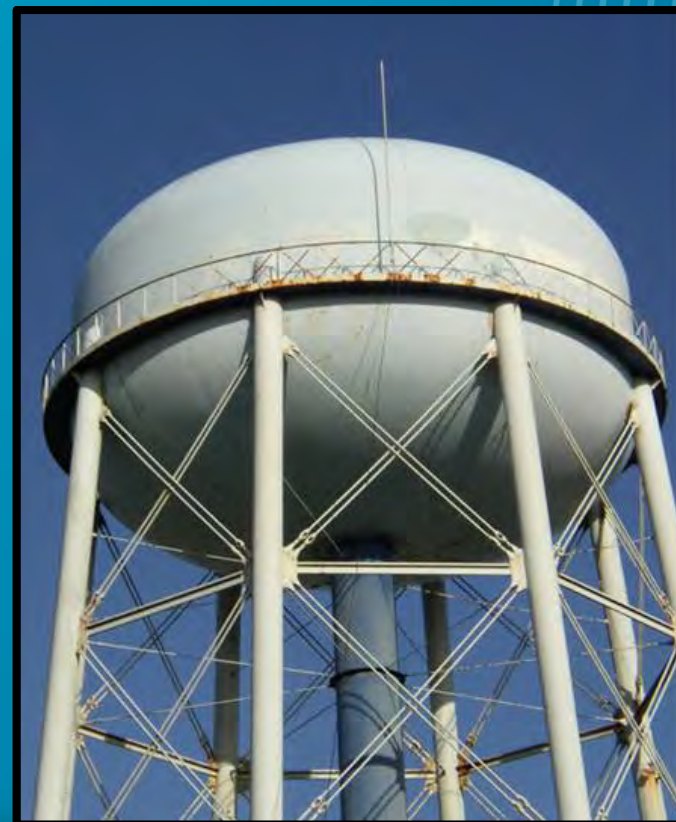
INVESTING IN IOWA'S WATER  
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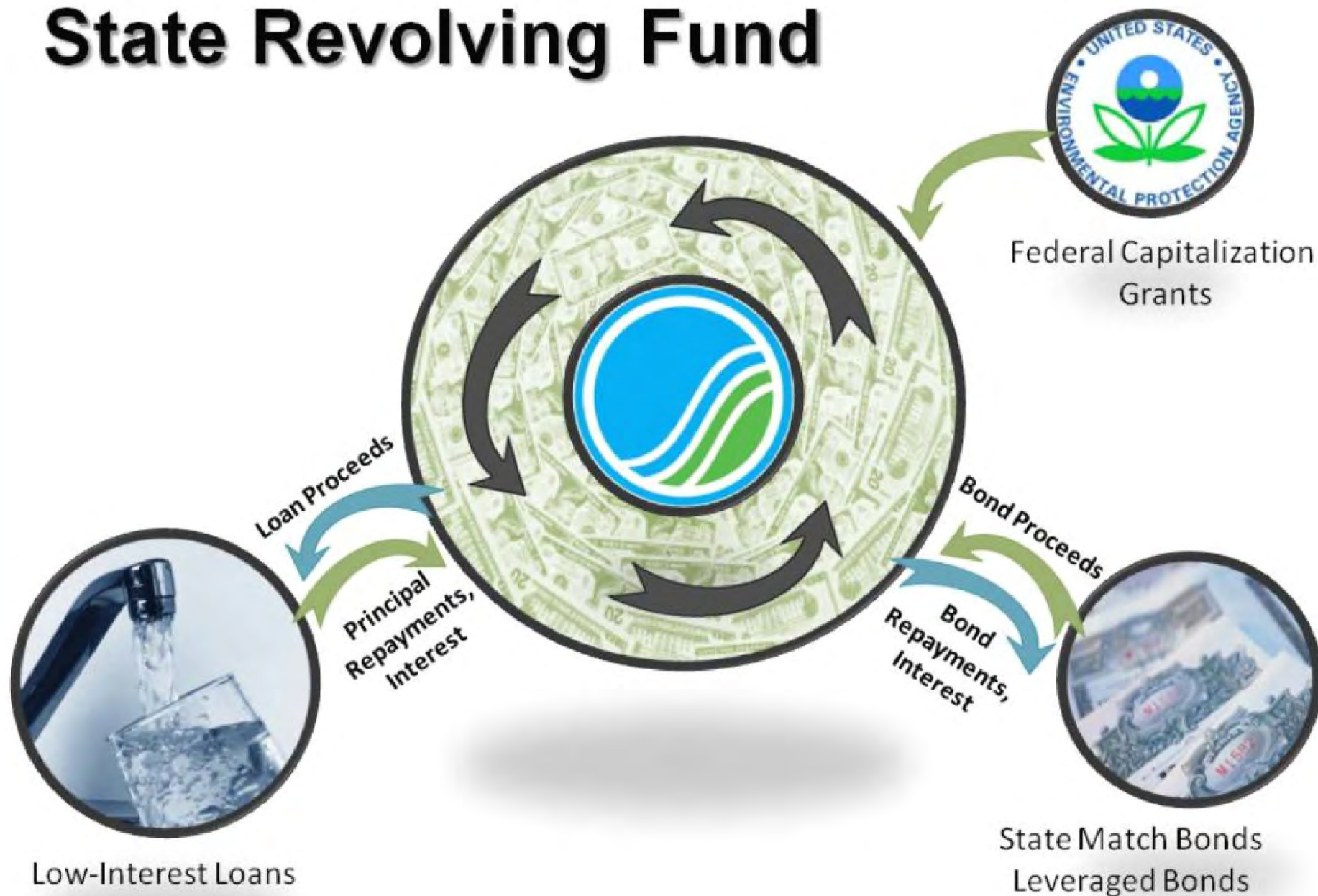
# Iowa's SRF

Iowa's SRF program  
can fund any eligible  
project

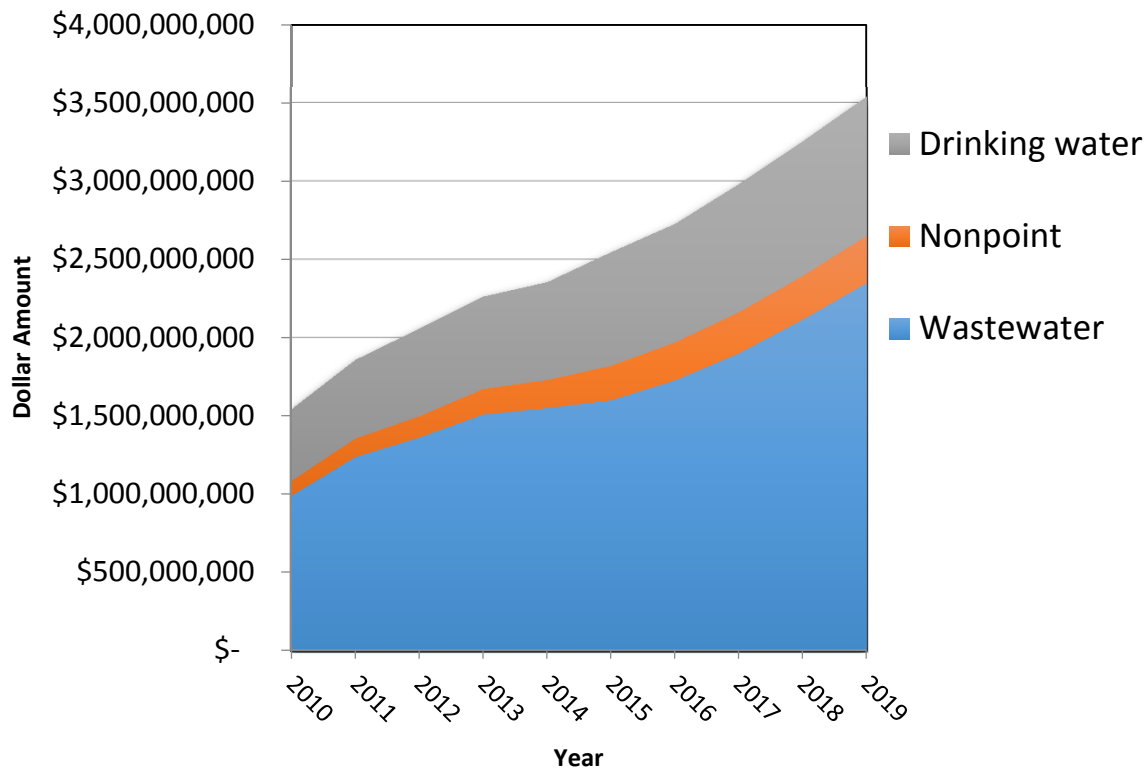
- \$76M for Ames DWTP
- \$74M for Dubuque WWTP
- Average loan is ~ \$2M



# State Revolving Fund



### SRF Cumulative Assistance



**Total Assistance = \$3.5 billion**  
**Current loan portfolio = \$1.9B**

# Drinking Water SRF

- Loans for:
  - Improvements to public water supply systems
  - Consolidations and connections
  - Distribution, treatment, storage and transmission
- DWSRF set-asides fund technical assistance, capacity development, state drinking water program, and SWP



# Clean Water SRF

- Loans for:
  - Point sources:
    - Publicly owned wastewater treatment facilities
    - Sewer system rehabilitation
    - New systems for unsewered communities
  - Nonpoint sources:
    - Ag best management practices
    - Green infrastructure
    - Sponsored projects



# What does Nonpoint Source (NPS) mean?

Nonpoint source (NPS) pollution comes from many sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, and ground waters.



# Nonpoint Source Program



- Direct Loans
- Loan Participations



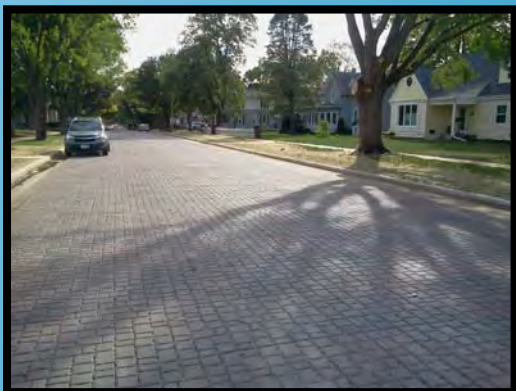
# General Nonpoint Source Program (GNS)

- **Direct Loan or Loan Participation**
- **Eligible Projects:**
  - Landfill closures
  - Habitat and wetland restoration
  - Brownfield cleanup
  - Lake restoration
  - Watershed planning
  - Green infrastructure
- **Eligible Recipients:**
  - Public entities, Watershed Organizations, Conservation Organizations, Landfills, others





# Green Infrastructure



- **Water quality benefit in lowering volume and treating stormwater**
  - Permeable paving
  - Stream daylighting
  - Bioretention
  - Rain gardens/ Bioswales
- **Review by SWCDs and IDALS Urban Conservationists**



# Nonpoint Source Program



- Direct Loans
- Loan Participations
- **Linked Deposits**



# Linked Deposit Programs

- Local Water Protection Program (LWPP)
  - For landowners to prevent runoff
  - Projects are approved by Division of Soil Conservation
- Livestock Water Quality Program (LWQ)
  - For livestock producers for manure management
  - Projects approved by Division of Soil Conservation
- Storm Water Program (SWP)
  - For projects that address water quality
  - Projects approved by Division of Soil Conservation
- Onsite Wastewater Assistance Program (OSWAP)
  - For homeowners to repair or replace septic systems
  - Projects approved by County Sanitarian & DNR



# Linked Deposit Programs

- IFA uses local lenders to underwrite and approve loans
- Projects are approved by local SWCD or county sanitarians
- Local lenders use their own loan documents and do all loan servicing
- The deposit is not security for the loan or a loan guarantee
- The deposit just allows the bank to loan at 3%
- About \$50 million in deposit accounts in about 400 banks in Iowa



# Nonpoint Source Program



- Direct Loans
- Loan Participations
- Linked Deposits
- **Sponsored Projects**



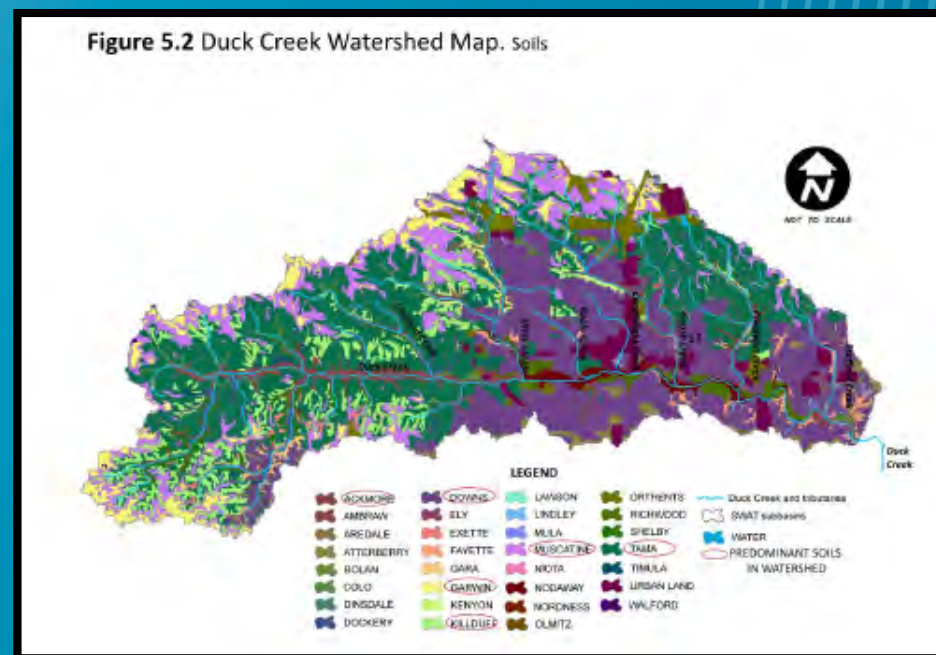
# Water Resource Restoration “Sponsored Project” Program

- Water Resource Restoration Sponsored Project funds allow wastewater utilities to address nonpoint source problems in their watershed
- Funded through the Clean Water SRF Program
- 2009 Iowa Legislation authorized wastewater utilities to fund Water Resource Restoration Sponsored Projects



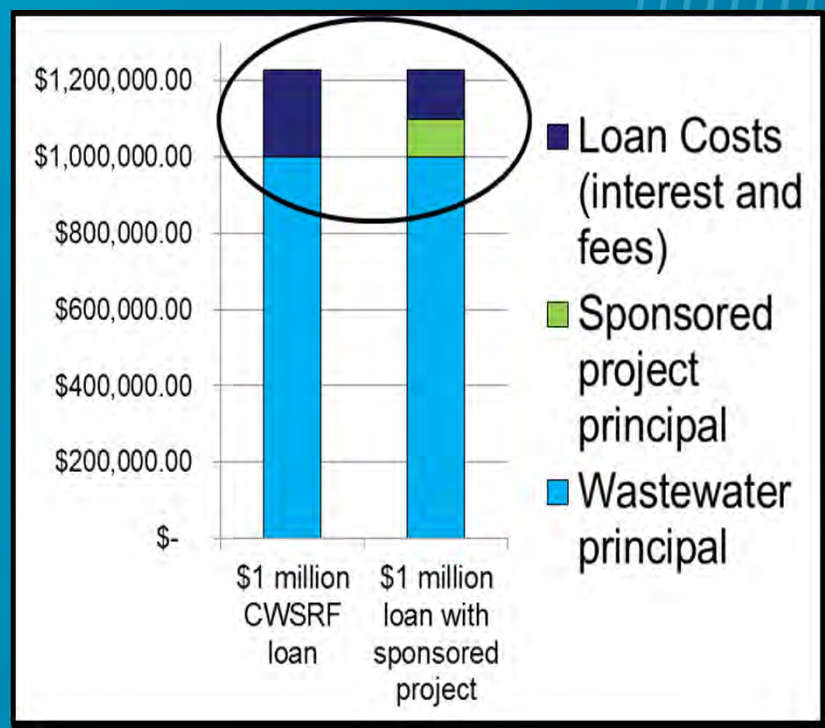
# Sponsored Projects

- Projects:
  - Start with watershed assessment
  - Practices must address water quality problems in the watershed
  
- Eligible Applicants:
  - Wastewater utility/city with CWSRF project in the planning phase



# Sponsored Projects Funding

- 10% of CWSRF award
- Funding is achieved by the wastewater utility borrowing from the Clean Water SRF for an infrastructure project + a nonpoint source watershed project
- The overall interest rate is reduced, allowing the utility to finance two projects for the cost of one





# Sponsored Projects



- Competitive application process
- Applications due twice each year – September and March
- Recommendations presented to EPC for approval
- \$10 million available each year



# Sponsored Projects

Permeable paving

Grassed waterways

Constructed wetlands

Stream bank stabilization

Conservation buffers

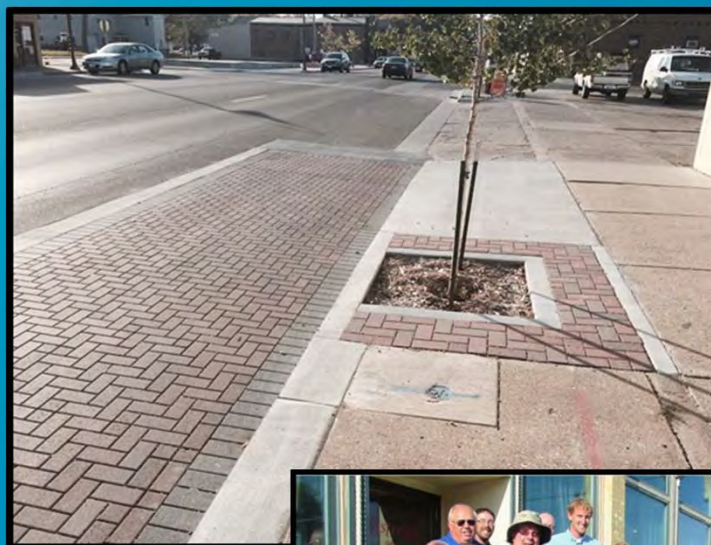
Rain gardens/bioswales

Restoration of riparian buffer and flood plain



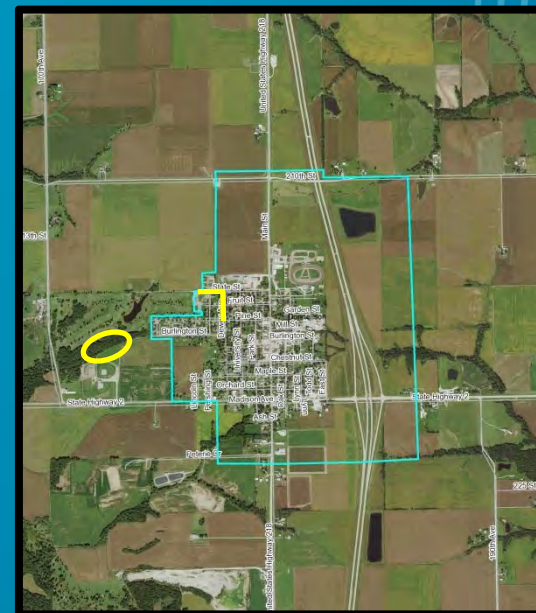
# Sponsored Project - Clinton

- Focus on urban storm water practices to improve water quality & reduce combined sewer overflows
- Use less costly green infrastructure solutions:
  - Permeable paving
  - bioretention cells
  - tree plantings



# Donnellson

- Mix of urban storm water management & ag practices
  - Bioswales for infiltration in town
- Partnership with Lee County SWCD
  - Supported cost share for a cover crop demonstration

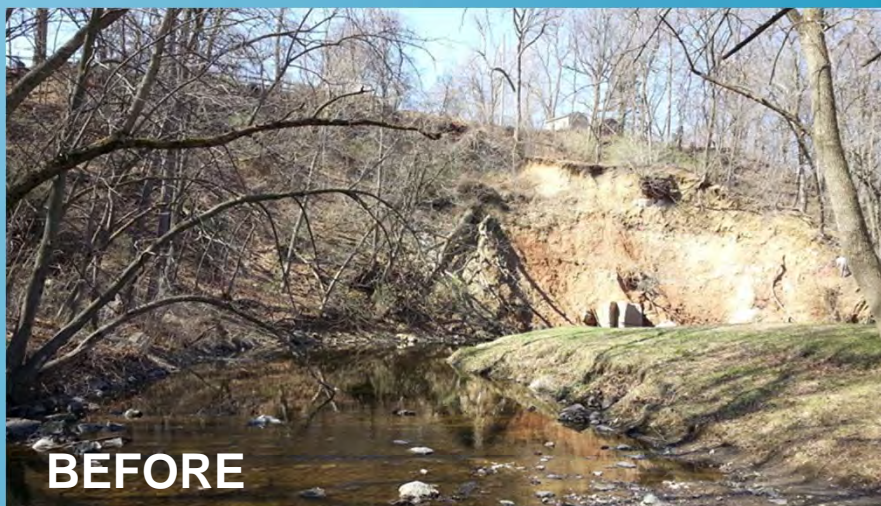


# Monona



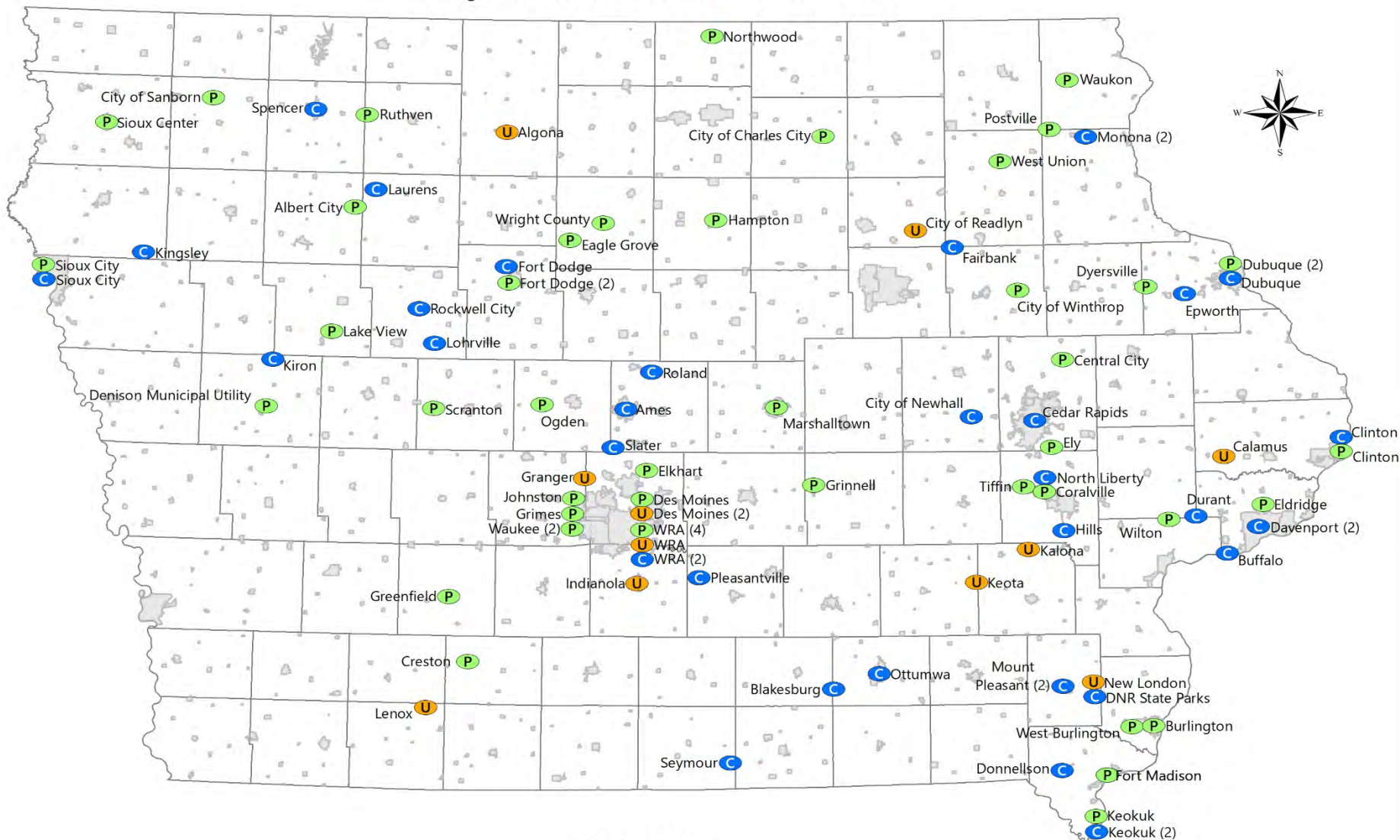
- **Runoff from gravel parking lot at municipal pool polluting creek**
- **Permeable paving infiltrates stormwater and reduces runoff**
- **Wastewater loan \$2.75 million**
- **Sponsored project amount \$245,000**
- **Phase 2 was more permeable paving on connecting street**

# Fort Dodge



- Stream corridor restoration in city park with storm water management
- Support for Badger Lake watershed project
  - Reduced sediment and nutrients entering the lake with practices on agricultural properties
- Dam removal on Des Moines River
- Loan amounts \$49 million
- Sponsored project budget approx. \$3.9 million

## Water Resource Restoration Sponsored Projects, Project Status as of June 2019



### Project Status

- Planning (42)
- Under Construction (11)
- Completed (33)

# Planning & Design Loans

- 0% financing for up to 3 years
- No payments during design phase
- Rolled into SRF loan / also used with USDA
- Source of funds for communities to hire an engineer and get the process started





# SRF Construction Loans

- Drinking water and wastewater infrastructure loans
  - 1.75% interest rate for 20 year loans
  - 2.75% interest for loans up to 30 years
  - 0.25% servicing fee
- **Disadvantaged communities – 1.75% for 30 yr. loans**
- No Reserve Requirement
- 1.10 debt coverage ratio



# Disadvantaged Communities

- Drinking water systems qualify based on CDBG criteria – 51% LMI
- Wastewater systems qualify based on rates to MHI



# Co-Funding

- Co-fund with CDBG for water, wastewater, and some storm water quality projects
- Projects can use P&D loan to get ready for construction financing through USDA Rural Development
- CDBG, USDA-RD and SRF staff meet quarterly



# Intended Use Plan (IUP)

- Outline the amounts of funding available and the planned uses
- Include CWSRF and DWSRF project priority lists
- IUPs are published quarterly
- Public hearing and comment period
- Approved by the Environmental Protection Commission (EPC): March, June, September, December

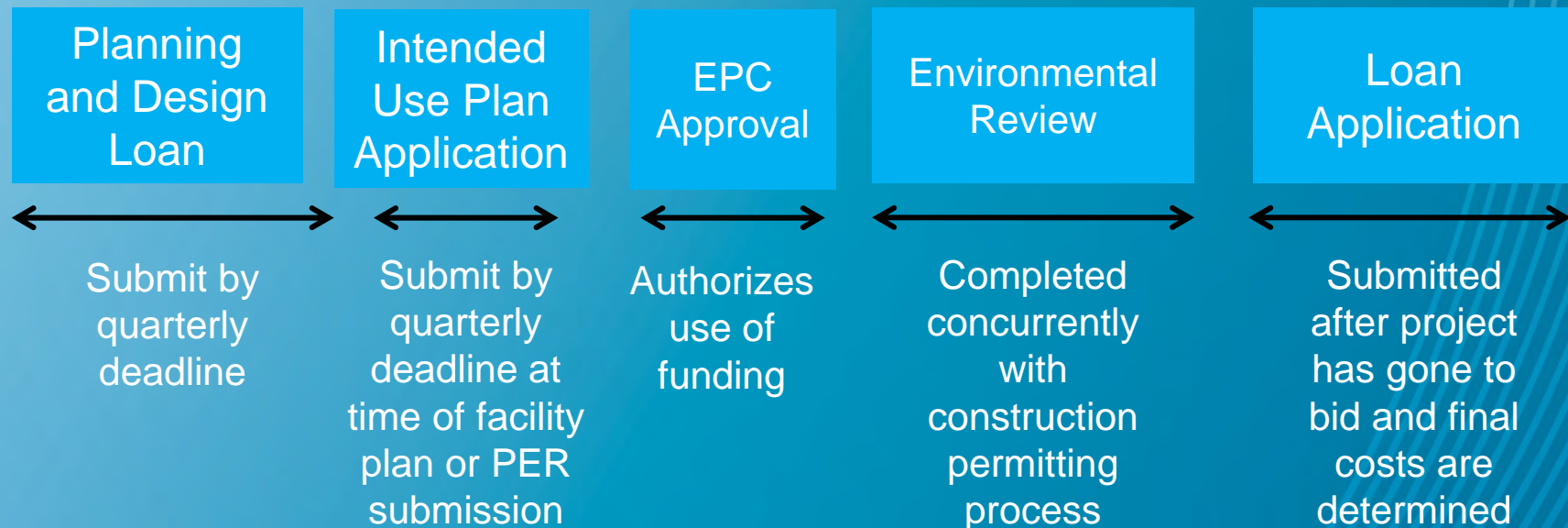


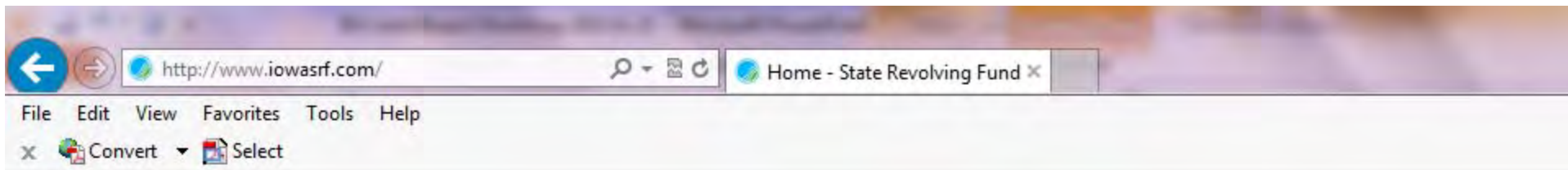
# IUP Application Process

- Applications accepted year round with four quarterly deadlines: March, June, September, December
- Submitted with an approved Facility Plan or Preliminary Engineering Report
- Accompanied by Environmental Review checklist



# State Revolving Fund - Process





[About SRF](#)

[News](#)

[SRF Resources](#)

[Environmental Reviews](#)



**A SOURCE** of funding for drinking water and wastewater. Get started with low-interest loans for a cost-effective way to fund your improvements.

The State Revolving Fund: Investing in Iowa's Water

**Iowa Department of Natural Resources  
Environmental Protection Commission**

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ITEM

6

DECISION

TOPIC

**Clean Water and Drinking Water State Revolving Loan Fund – FY 2020  
Intended Use Plan**

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Commission approval is requested for the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) Intended Use Plans (IUPs) for FY 2020 (July 1, 2019 – June 30, 2020).

The State Revolving Fund (SRF) programs are authorized through federal legislation and administered by the State of Iowa under the oversight of the U.S. Environmental Protection Agency. The CWSRF finances publicly owned wastewater and sewer facilities, storm water management for water quality, and nonpoint source control practices to keep pollution out of Iowa's water. The DWSRF covers water system projects, including source water, treatment, storage, and distribution and transmission, as well as consolidation and connections.

The Iowa SRF is operated through a coordinated partnership between the Department of Natural Resources (DNR) and the Iowa Finance Authority (IFA). DNR administers the environmental and permitting aspects of the programs, with IFA providing financial assistance including loan approval and disbursements. Other important partners include the Iowa Department of Agriculture and Land Stewardship, Soil and Water Conservation Districts, county sanitarians, participating lenders, and others.

The FY 2020 IUPs include plans of action for the SRF programs, including goals and objectives, an analysis of current and projected financial capability, financial management strategies, the project priority lists, discussion of set-aside programs and efforts, and planned uses for administrative accounts.

The IUPs are developed and updated quarterly, in June, September, December, and March or more often as needed. Each draft IUP is released for public comment, and then presented for approval to the Commission. A public meeting was held on May, 8, 2019 to receive comments on the proposed IUP updates. There were no attendees. The written comment period closed on May 16, 2019. Stakeholder comments were received by EPA and IFA and changes were incorporated into this IUP.

The Sources and Uses tables for both CWSRF and DWSRF show that funds are available or obtainable to provide anticipated disbursements. The IUPs will be updated quarterly during FY 2020.

Theresa Enright, DNR SRF Coordinator  
June 3, 2019



Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Fairfax	PD-DW-20-11	New ground water storage tank and pump station proposal	2020	G	P&D	1	3000	P	\$ 291,000				
Early	PD-DW-20-01	Evaluation a new treatment system and installation of new water mains	2020	G	P&D	1	523	P	\$ 515,000				
Eagle Grove	PD-DW-20-10	Assessments, reports and modeling to support application for CDBG funds	2020	G	P&D	1	3583	P	\$ 115,000				
Hiawatha	FS-57-20-DWSRF-004	Construct ground storage reservoir and booster station with generator	2020	B, E	60	1	7353	P	\$ 2,329,000				
Auburn	FS-81-20-DWSRF-003	Construction of new Dakota sandstone aquifer well and a new 50,000 gallon water tower	2020	B, E	45	1	315	P	\$ 1,447,000				
Fairfax	FS-57-20-DWSRF-005	Construct 500k gallon ground water storage tank, pump station and utility extensions	2020	B,E	45	1	3000	P	\$ 3,142,000				
Albion	FS-64-20-DWSRF-002	Construction of well to Mississippian formation and purchase of new water meters	2020	B,E	45	1	470	P	\$ 412,000				
Wahpeton	FS-30-20-DWSRF-001	Replace water main and associated appurtenances	2020	B, E	30	1	368	P	\$ 526,000				
Jamaica	PD-DW-19-44	Water Treatment System Improvements	2019	G	P&D	4	220	P	\$ 375,000				
Lewis	PD-DW-19-45	Water Treatment and Distribution System Improvements	2019	G	P&D	4	433	L			3/29/19	\$ 120,000.00	\$ 120,000
Anthon	PD-DW-19-58	Water Treatment Plant Improvements	2019	G	P&D	4		L			3/22/19	\$ 120,000	\$ 120,000
Williamsburg	FS-48-19-DWSRF-023	RO Treatment Facility to replace iron/manganese treatment	2019	A, B, E	70	4	3189	P	\$ 5,966,000				
Guthrie Center	FS-39-19-DWSRF-026	Existing Ground Storage Facilities	2019	B, C, E	55	4	1569	P	\$ 1,491,000				
Pomeroy	FS-13-19-DWSRF-024	Water Treatment System Improvements	2019	B, C, E	55	4	655	P	\$ 1,136,000				
Alta	FS-11-19-DWSRF-031	Production Well #7	2019	B, E	45	4	2056	P	\$ 784,000				
Sanborn	FS-71-19-DWSRF-027	RO pilot protocol, New Water Treatment Plant Evaluation	2019	B, E	45	4	1384	P	\$ 8,502,000				
Oelwein	FS-33-19-DWSRF-030	2019 Water Main Replacement	2019	B, C, E	40	4	6415	P	\$ 1,281,000				
Sigourney	FS-54-19-DWSRF-029	Water distribution system improvements	2019	B, C, E	40	4	2000	P	\$ 491,000				
Somers	FS-13-19-DWSRF-028	Municipal Water Filtration Improvements	2019	B, C, E	35	4	113	P	\$ 179,000				
Sumner	FS-09-19-DWSRF-025	E 1st Street Water Main Improvements	2019	B, D, E	30	4	2028	P	\$ 684,000				
Alta	PD-DW-19-43	Construction of a second new well	2019	G	P&D	3	1958	L			4/5/19	\$ 56,500	\$ 56,500
Grafton	PD-DW-19-40	Construct a new water treatment system	2019	G	P&D	3	258	L			3/1/19	\$ 72,300.00	\$ 72,300
Stacyville	PD-DW-19-41	Water main replacement along Broad Street	2019	G	P&D	3	501	L			12/28/18	\$ 164,700.00	\$ 164,000
Thompson	PD-DW-19-42	Install new water treatment plant and extend water main to existing system from new WTP	2019	G	P&D	3	517	L			2/1/19	\$ 105,500.00	\$ 105,500

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Stacyville	FS-66-19-DWSRF-016	Water main replacement along Broad Street	2019	B,C,E	40	3	501	P	\$ 988,000				
Thompson	FS-95-19-DWSRF-018	Install new water treatment plant and extend water main to existing system from new WTP	2019	B,C,E	40	3	517	P	\$ 577,000				
Grafton	FS-98-19-DWSRF-022	Construct a new water treatment system	2019	B,C,E	35	3	258	P	\$ 630,000				
Sioux City	FS-97-19-DWSRF-019	Airport Water Main Replacement	2019	A,B	35	3	82759	P	\$ 3,098,000				
Clarion	FS-99-19-DWSRF-020	Water Main Improvements	2019	B, E	30	3	2850	P	\$ 1,397,000				
Mitchellville	FS-77-19-DWSRF-017	Water main replacement	2019	B,E	30	3	2254	P	\$ 1,110,000				
Bernard	FS-31-19-DWSRF-015	Replacement of ground storage tank, booster pumps	2019	B, E	25	3	112	P	\$ 185,000				
Rockwell City	FS-13-19-DWSRF-021	Water Main install to Twin Lakes	2019	D,E	25	3	1714	P	\$ 1,695,000				
Albion	PD-DW-19-13	Construction of new water main connecting to Marshalltown Water Works	2019	G	P&D	2	505	P	\$ 55,000				
Auburn	PD-DW-19-14	Construction of second Dakota Well and new 50000 gallon water tower	2019	G	P&D	2	322	L			9/28/18	\$ 80,000.00	\$ 80,000
Bellevue	PD-DW-19-15	Construction of 2700 sf Radium Treatment Facility	2019	G	P&D	2	2191	P	\$ 285,000				
Colfax	PD-DW-19-16	Water Main Improvements	2019	G	P&D	2	2093	L			9/28/18	\$ 175,000.00	\$ 175,000
Ida Grove	PD-DW-19-21	Construction of new well, water main, standby power, and water meter replacement	2019	G	P&D	2	2158	L			9/28/18	\$ 310,000.00	\$ 310,000
Malvern	PD-DW-19-17	Construction of new water treatment plant	2019	G	P&D	2	1142	L			9/28/18	\$ 228,000.00	\$ 228,000
Sanborn	PD-DW-19-18	Construction of new reverse osmosis water treatment plant	2019	G	P&D	2	1424	L			10/26/18	\$ 690,000.00	\$ 690,000
Woodland Ridge Subdivision	FS-52-19-DWSRF-011	Connection to Iowa City and abandon system existing wells and to eliminate existing public water supply system	2019	A, F	60	2	50	P	\$ 510,000				
Pleasantville	FS-63-19-DWSRF-010	Water replacement project. Replace approx 5,300' of 4" and 6" WM with 10" PVC pipes.	2019	A, B, C, E	55	2	1694	P	\$ 393,000.00			\$ 848,000	
Osceola Rural Water System-North	FS-72-19-DWSRF-012	A new 1,800 gpm RO expansion including wells, water storage and pipeline	2019	B, E	40	2	4495	P	\$ 17,709,000				
Colfax	FS-50-19-DWSRF-013	Replace old undersized water mains with new properly sized ones.	2019	B, E	30	2	2093	P	\$ 1,263,000				
Ottumwa Water Works	FS-90-19-DWSRF-009	Increase lift station capacity, construct gravity sludge thickener, install second press, backwash attenuation tank and new pump station as stated in Lime Residual Process Evaluation Amendment #1	2019	B, C	25	2	25023	P	\$ 4,400,000				

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Dubuque	FS-31-19-DWSRF-014	Construction of a 1.25 MG water tower, 4840 lineal feet of 12" water main and 80 lineal feet of 16" water main, and 4 PVR stations. Demo existing Eagle Point Water Tower and replace pumps and process piping at Eagle Point Water Treatment Plant.	2019	B	20	2	58485	P	\$ 4,697,370				
Bernard	PD-DW-19-01	Replacement of ground storage tank, booster pumps	2019	G	P&D	1	112	L			11/30/18	\$ 70,000.00	\$ 70,000
Manchester	PD-DW-19-02	Installation of water main loop	2019	G	P&D	1	5179	L			8/31/18	\$ 96,500.00	\$ 96,500
Osceola Co Rural Water	PD-DW-19-03	Construction of 2400 gpm water treatment plant expansion	2019	G	P&D	1	4495	P	\$ 700,000				
Pomeroy	PD-DW-19-04	Water Treatment Facility Replacement	2019	G	P&D	1	669	L			3/29/19	\$ 133,000.00	\$ 133,000
Rockwell City	PD-DW-19-05	Water Main install to Twin Lakes	2019	G	P&D	1	1714	L			10/19/18	\$ 149,000.00	\$ 149,000
Bellevue	FS-49-19-DWSRF-003	North water main extension	2019	B, E	45	1	2191	P	\$ 1,216,000				
Clarion	FS-99-19-DWSRF-004	Construction of new well & transmission main to WTP, and improvements to distribution system	2019	B, E	45	1	2850	P	\$ 802,995				
Avoca	FS-78-19-DWSRF-006	Water main replacement	2019	B, E	30	1	1662	P	\$ 2,526,306				
Manchester	FS-28-19-DWSRF-005	Installation of water main loop	2019	B, E	30	1	5179	L			2/8/19	\$ 929,000.00	\$ 754,000
Anthon	FS-97-19-DWSRF-001	Improvements to wells, filter systems, controls, electrical system, chemical feed, and storage	2019	B, E	25	1	565	P	\$ 1,226,000				
Johnston	FS-77-19-DWSRF-002	Construction of new booster pump station & emergency generator, installation of new water main to connect pressure zones, construction of new flow metering vault, and removal of control valve	2019	B, E	20	1	20460	P	\$ 2,750,000				
Blairsburg	PD-DW-18-51	New water treatment facility	2018	G	P&D	4	215	L			4/27/18	\$ 135,000.00	\$ 135,000
Clarion	PD-DW-18-45	New well and water main	2018	G	P&D	4	2850	L			3/23/18	\$ 210,000.00	\$ 210,000
Dunkerton	PD-DW-18-46	Iron removal	2018	G	P&D	4	851	R	\$ 112,500				
Elkader	PD-DW-18-47	Water main replacement	2018	G	P&D	4	1300	L			3/23/18	\$ 156,700.00	\$ 156,700
Fort Dodge	PD-DW-18-48	Reverse osmosis system	2018	G	P&D	4	25206	L			3/30/18	\$ 700,000.00	\$ 700,000
Pleasantville	PD-DW-18-49	Water main replacement	2018	G	P&D	4	1700	L			4/6/18	\$ 36,400.00	\$ 36,400
Grimes	FS-77-18-DWSRF-016	Design and construction of a new water tower, new Jordan well, and new reverse osmosis treatment plant to meet demands of growing population	2018	B	30	4	13600	L			3/8/19	\$ 27,869,000	\$ 4,200,000
Grimes	FS-77-18-DWSRF-016 (2) - EST	Design and construction of a new water tower, new Jordan well, and new reverse osmosis treatment plant to meet demands of growing population	2018	B	30	4	13600	L			4/12/19	\$ 3,800,000.00	\$ 3,800,000.00

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Gilbert	FS-85-18-DWSRF-021	Design and construction of a new water treatment plant, ground storage tank, and high service pump station, replacement of electric and controls for existing wells, and installation of backup generator for well field	2018	B, E	25	4	1126	P	\$ 4,322,000				
Lake Panorama Association	FS-39-18-DWSRF-018	Design and construction of a reverse osmosis treatment plant to address hardness, total dissolved solids, and sulfates	2018	B, E	25	4	2750	P	\$ 3,569,000				
Delaware	FS-28-18-DWSRF-020	Installation of pressure tanks and extension of public water mains to serve residents currently on private wells	2018	C, E	20	4	159	L			3/29/19	\$ 177,425.00	\$ 112,000
DWSRF	FS-78-18-DWSRF-015	Replace an aging transmission main	2018	B	20	4	63795	L			9/7/18	\$ 5,025,000.00	\$ 5,025,000
Iowa Lakes Regional Water	FS-21-18-DWSRF-019	Addition of solar panels at six booster stations and water towers to reduce operational cost and improve resiliency	2018	B	15	4	14,600	P	\$ 260,000				
Delaware	PD-DW-19-30	Installation of pressure tanks and extension of public water mains to serve residents currently on private wells	2018			4		L			9/28/18	\$ 30,000.00	\$ 30,000
Gallery Acres West HOA (Solon)	PD-DW-18-52		2018			4		L			9/28/18	\$ 75,000.00	\$ 75,000
Gilbert	PD-DW-18-55	Design and construction of a new water treatment plant, ground storage tank, and high service pump station, replacement of electric and controls for existing wells, and installation of backup generator for well field	2018			4		L			4/6/18	\$ 330,900.00	\$ 350,000
Adel	PD-DW-18-31	Plan for water treatment improvements	2018	G	P&D	3	3682	L			1/5/18	\$ 1,025,000.00	\$ 1,025,000
Bagley	PD-DW-18-28	Plan for new water source and water treatment options	2018	G	P&D	3	303	L			1/19/18	\$ 150,000.00	\$ 150,000
Grimes	PD-DW-18-29	Plan for new water tower, Jordan well, water mains, and treatment plant expansion	2018	G	P&D	3	8246	L			1/5/18	\$ 1,809,000.00	\$ 1,809,000
Vail	PD-DW-18-30	Plan for new water source and water treatment options	2018	G	P&D	3	436	R	\$ 50,000				
Dunkerton	FS-07-18-DWSRF-014	Construct an iron removal facility on Well #3	2018	B,E	25	3	851	P	\$ 1,181,000				
Dakota City	PD-DW-18-21	Water treatment facility upgrades	2018	G	P&D	2	858	L			12/8/17	\$ 140,000.00	\$ 140,000
Dubuque	PD-DW-18-20	Pressure zone improvements	2018	G	P&D	2	57852	L			9/22/17	\$ 475,000.00	\$ 475,000
Garwin	PD-DW-18-17	Water main replacement	2018	G	P&D	2	527	L			10/20/17	\$ 100,000.00	\$ 100,000
Marble Rock	PD-DW-18-18	Water main replacement	2018	G	P&D	2	307	L			9/22/17	\$ 108,500.00	\$ 108,000
Woodland Ridge Subdivision	PD-DW-18-19	Address radium MCLs	2018	G	P&D	2	50	L			4/13/18	\$ 66,000.00	\$ 66,000

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Fort Dodge	FS-94-18-DWSRF-011	Reduce water hardness, reducing chloride concentrations to sanitary sewer, with construction of new Mississippian well, reverse osmosis process, and waste disposal system	2018	A,B	80	2	25206	P	\$ 25,286,000			\$ 20,804,000.00	
Kiron	FS-24-18-DWSRF-013	Water storage	2018	B,C,E	55	2	279	P	\$ 561,000				
Cleghorn	FS-18-18-DWSRF-006	Replace aging water tower, install water mains to tower, add emergency generator at water treatment plant	2018	B,E	45	2	247	L	\$ 200,000		3/8/19	\$ 1,024,000	\$ 557,000
Pocahontas	FS-76-18-DWSRF-012	Install new well	2018	B,E	45	2	1789	P	\$ 547,000				
Marble Rock	FS-34-18-DWSRF-010	Address areas of city that experience poor water quality and quantity by looping and installing larger water mains	2018	B,C,E	40	2		L			4/19/19	\$ 482,000.00	\$ 574,000
Lehigh	FS-94-18-DWSRF-008	Improvements to water filtration system	2018	B,C,E	35	2	416	P	\$ 553,554				
Sioux City (Grandview Reservoirs)	FS-97-18-DWSRF-007	Demolish and replace South and North Grandview reservoirs which were built in 1941 in order to improve capacity in the Grandview pressure zone	2018	B	35	2	82759	P	\$ 6,535,937				
Sergeant Bluff	FS-97-18-DWSRF-009	Add new detention tank to provide iron settling and new pressure filter to provide 2-stage iron, manganese, and ammonia removal. Convert existing tank for finished water storage. Upgrade water mains	2018	B,E	25	2	4227	P	\$ 6,096,000				
Armstrong	PD-DW-18-02	Water Treatment Plant Improvements	2018	G	P&D	1	943	L			9/8/17	\$ 238,000.00	\$ 238,000
Dedham	PD-DW-18-01	Construction of a new well at alternative location to provide city with backup water supply	2018	G	P&D	1	266	R	\$ 50,000				
Lakota	FS-55-18-DWSRF-002	Install a new Water Treatment Plant	2018	B,C,E	35	1	255	P	\$ 424,000				
Newton	FS-50-18-DWSRF-001	Cover existing backwash tank with new building	2018	B	15	1	16262	P	\$ 402,000				
Fort Dodge	PD-DW-17-55	Addition of water softening process to water treatment plant	2017	G	P&D	4	25206	L			8/11/17	\$ 1,200,000.00	\$ 1,200,000
Johnston	PD-DW-17-50	New pump station, water main, and emergency generator	2017	G	P&D	4	17306	L			9/29/17	\$ 500,000.00	\$ 500,000
Dubuque	FS-31-17-DWSRF-026	Construction of a water pumping facility and connection to two homeowners' associations	2017	B,E	40	4	57852	L			7/7/17	\$ 10,801,400.00	\$ 10,198,000

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Raymond	FS-07-17-DWSRF-028	Watermain Loop connecting to Waterloo Water Works	2017	B	20	4	788	L			10/19/18	\$ 1,688,400.00	\$ 1,025,000
Armstrong	FS-32-17-DWSRF-020	Water treatment improvements	2017	A,B,E	70	3	943	P	\$ 1,100,000				
Bellevue	FS-49-17-DWSRF-021	Construction of a water treatment facility	2017	A,E	60	3	2191	L		75%	10/5/18	\$ 1,819,000.00	\$ 2,200,000
Gallery Acres West HOA (Solon)	FS-52-17-DWSRF-017	Resolve arsenic MCL through connection to another system or construction of new well and treatment	2017	A,E	60	3	43	P	\$ 1,039,000	75%			
Lacina Meadows HOA	FS-52-17-DWSRF-022	Connecting to the City of Iowa City water supply to supply drinking water	2017	A,E	60	3	58	L		75%	3/23/18	\$ 939,000.00	\$ 945,000
Swea City	FS-55-17-DWSRF-023	Replacement of approximately twenty five (25) blocks of undersized, four-inch water main that consist of asbestos cement.	2017	A,B,C,E	55	3	555	P	\$ 1,844,000				
Truro	FS-61-17-DWSRF-016	Replace all AC water distribution piping, increasing size of water mains being replaced, and modifying the height of the existing EST to improve distribution system pressure.	2017	A,B,E	45	3	485	P	\$ 866,000				
Sheffield	FS-35-17-DWSRF-024	Watermain replacement of older undersized watermain within the drinking water distribution system with new 6" or 8" watermain	2017	B,C,E	40	3	1172	L			3/30/18	\$ 1,570,000.00	\$ 1,200,000
Jewell	FS-40-17-DWSRF-015	Replace current filtering system to remove the ammonia, arsenic, and hardness in the water	2017	B,E	25	3	1215	L			12/22/17	\$ 1,847,766.00	\$ 1,711,000
Farley	FS-31-17-DWSRF-008	An HMO treatment system is proposed to remove radium from the raw well	2017	A,B,E	70	2	1537	L			8/24/18	\$ 2,311,000.00	\$ 2,304,000
Janesville	FS-09-17-DWSRF-009	Install new water main that connects the western portion of Janesville to the eastern portion.	2017	B,E	30	2	930	L			9/8/17	\$ 1,015,000.00	\$ 708,000
Lyon & Sioux Rural Water	FS-60-17-DWSRF-011	Installation of permanent emergency generators for the Klondike WTP & Larchwood WTP to treat and pump water to the distribution system during power outages	2017	B,E	25	2	1390	P	\$ 131,000	75% of cost of generator equipment and installation			
Washington	FS-92-17-DWSRF-007	Construct new treatment plant modifications	2017	B,E	25	2	7266	L			1/19/18	\$ 3,977,790.00	\$ 4,378,000
Sioux City (Western Hills/Indian Hills)	FS-97-17-DWSRF-012	Construction of a new water tank and a large capacity water main	2017	B	20	2	82759	P	\$ 6,507,000			\$ 8,000,000.00	
Rathbun Regional Water (RRWA)	FS-04-17-DWSRF-010	Replacement of aging water meters with a new advanced/smart metering system.	2017	C,D	15	2	28215	R	\$ 2,902,945	30% of cost of water meter equipment and installation			

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Sioux City (Zenith Water Treatment Plant)	FS-97-17-DWSRF-013	Add standby generator to Riverside Collector and improvements to the chemical feed systems	2017	B	15	2	82759	P	\$ 1,797,267				
Amana Society Service Company	FS-48-17-DWSRF-001	Replace with 250,000 gallon new elevated water storage and construct booster station. New 8-inch main is also proposed	2017	A,B,E	95	1	1224	L	\$ 1,700,000	75%	4/6/18	\$ 7,100,000.00	\$ 5,400,000
Oelwein	FS-33-17-DWSRF-004	Rehabilitation of existing well, new well house, chlorine feed system, emergency generator	2017	B,C,E	55	1	6415	L		75% of cost of generator equipment and installation	4/13/18	\$ 1,033,000.00	\$ 1,462,000
Kelley	FS-85-17-DWSRF-005	Connection to Xenia Rural Water System, disconnection of well, water tower rehabilitation	2017	B,E	45	1	310	L			8/4/17	\$ 552,000.00	\$ 650,000
Osceola County Rural Water System	FS-71-17-DWSRF-003	New treatment plant to remove iron and manganese, generator, ground storage reservoir, well buildings	2017	B,E	40	1	754	L		75% of cost of generator equipment and installation	3/30/18	\$ 6,643,000.00	\$ 3,719,000
Fort Dodge	FS-94-17-DWSRF-006	Upgrade of all water meters and addition of automatic reading system	2017	B	20	1	25,206	L		30% of cost of water meter equipment and installation	10/13/17	\$ 4,347,000.00	\$ 3,413,000
Amana Society Service Company	PD-DW-16-48	Solutions to pressure problems and well replacement	2016	G	P&D	4	1224	L			2/2/18	\$ 1,150,000.00	\$ 1,150,000
Anamosa	FS-53-16-DWSRF-019	Plant Expansion	2016	B,C,E	50	4	4283	L			12/8/17	\$ 1,660,000.00	\$ 1,801,000
West Des Moines	FS-77-16-DWSRF-022 (2)	Construction of 1 Jordan aquifer and 2 shallow alluvial aquifer wells to provide redundancy of source water supply	2016	B	35	4	56609	R	\$ 1,891,000				
Mahaska RWS	FS-62-16-DWSRF-017	Construction of 7,400 I.F. of 8" transmission main along with related valves, booster pump and connections. Water treatment plant improvements and 1,500 I.F. of 6" water main	2016	B,E	30	4	1293	L			8/10/18	\$ 1,319,050.00	\$ 817,000
Fenton	FS-55-16-DWSRF-012	Install new water tower	2016	B,C,E	55	3	281	L			11/17/17	\$ 392,000.00	\$ 518,000
Westgate	FS-33-16-DWSRF-015	Construct a new water tower	2016	B,E	45	3	211	P	\$ 568,000				
Cushing	FS-97-16-DWSRF-013	Construction of a new 55,000 gallon standpipe for water storage, water meters, emergency generator	2016	B,E	30	3	220	L		30% of cost of water meter equipment and installation, 75% of cost of generator equipment and installation	10/5/18	\$ 844,000.00	\$ 890,000
Farmington	FS-89-16-DWSRF-006	Replace old cast iron water main and underground storage tank with above ground tank	2016	B,C,E	40	2	664	P	\$ 312,000				

Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Keswick	FS-54-16-DWSRF-009	Replacement of all remaining cast iron main, add system looping and add new flushing hydrants, new isolation valves and service connections.	2016	B,C,E	40	2	246	L			3/30/18	\$ 421,497.00	\$ 421,000
Ridgeway	FS-96-16-DWSRF-007	Water main replacement project, generator	2016	B,C,E	40	2	315	L		Not used	9/28/18	\$ 380,000.00	\$ 388,000
Dakota City	FS-46-15-DWSRF-020	Construct a 2nd well	2015	B,C,E	55	4	843	L			6/29/18	\$ 708,525.00	\$ 250,000
Van Meter	FS-25-15-DWSRF-020	New Water Treatment Plant	2015	B,E	45	4	1054	P	\$ 4,608,000				
Guthrie Center	FS-39-15-DWSRF-017	Water main replacement and new water service connection	2015	B,C,E	40	4	1569	R	\$ 518,660				
Sabula	FS-49-15-DWSRF-019	Water main replacement on Broad street, water meters	2015	B,C,E	40	4	576	L		30% of cost of water meter equipment and installation	1/5/18	\$ 787,920.00	\$ 550,000
Sioux Rapids (revised)	FS-11-15-DWSRF-015	New well, new water treatment plant for nitrate removal and iron/manganese removal, replace booster pumps, piping, and controls	2015	B,E	45	3	775	L			10/27/17	\$ 1,269,000.00	\$ 1,502,000
Mt Ayr (Revised)	FS-80-15-DWSRF-013	Water main replacement and water plant demolition	2015	B,C,E	40	3	1691	L			11/2/18	\$ 4,100,000.00	\$ 4,100,000
Ruthven	FS-74-15-DWSRF-006	New well to replace Well #1, aerator rehab, control panel replacement, water main replacement to improve pressure and add new valves and hydrants	2015	B,C,E	55	2	779	P	\$ 1,316,550				
Little Sioux	FS-43-15-DWSRF-010 (2)	Water distribution system improvements	2015	B,C,E	40	2	170	R	\$ 84,000				
Asbury	FS-31-15-DWSRF-001 G	Constructing water main looping, installing new well and elevated storage tank	2015	B,E	45	1	4545	L			9/8/17	\$ 1,807,000.00	\$ 1,807,000
Asbury	FS-31-15-DWSRF-001 R	Constructing water main looping, installing new well and elevated storage tank	2015	B,E	45	1	4545	L			9/8/17	\$ 1,200,000.00	\$ 1,200,000
Ida Grove	FS-47-14-DWSRF-008	Add new permanent well	2014	B,E	45	3	2158	P	\$ 339,017				
De Soto	FS-24-14-DWSRF-011	New water treatment facility	2014	B,E	25	3	1050	P	\$ 4,020,000				
Stanwood	FS-16-13-DWSRF-021	Construction of approx 2700 lineal feet of new 6 inch PVC pipe, including new valves, hydrants.	2013	B,C,E	40	4	684	R	\$ 786,841				
Shenandoah	FS-73-12-DWSRF-020	Water meter replacement	2012	B,C,D,E	45	4	5546	R	\$ 80,800	20%			
Cedar Falls Utilities	FS-07-12-DWSRF-028	Water main extension to connect homes with nitrate contaminated private wells	2012	A	35	4	39260	P	\$ 1,380,670	75%			
Mt Ayr (supplemental)	FS-80-12-DWSRF-014 (2)	Movement of prefabricated booster pump station to new location to improve pressures	2012	B,E	20	4	1691	L			7/20/18	\$ 275,000.00	\$ 275,000
Albia	FS-68-12-DWSRF-008	Water main replacement	2012	B,C,E	40	2	3706	P	\$ 350,000				
									\$ 162,172,412			\$ 140,972,773.00	\$ 80,077,900
<b>Project Status</b>	<b>Project Type</b>												
Dropped -- D	A = Water Quality and Human Health Risk-Related Criteria												
Ready for Loan -- R	B = Infrastructure and Engineering-Related Improvement												
Loan Signed -- L	C = Affordability Criteria												
Planning Stage -- P	D = Special Category Improvements												
	E = Project Serves Population less than 10,000												
Water and Energy Efficiency	F = Supplemental Loan for Previously Approved Project												



Project Name	DWSRF No.	Project Description	IUP Yr	Project Type	Priority Points	Quarter	Population	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Emergency Generators	G = Planning and Design Loan												
Disadvantaged Communities													
Public Health Projects													

Project Name	Project Number	CWSRF No.	Project Description	IUP Yr	Needs Category	Priority Points	Quarter	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Eagle Grove		PD-CW-20-13	Sewer System Improvements Planning	2020	P&D	P&D	1	P	\$ 150,000				
Grimes		PD-CW-20-05	Plan for sanitary sewer construction	2020	P&D	P&D	1	P	\$ 475,000				
Maquoketa		PD-CW-20-07	Nutrient Reduction Improvements	2020	P&D	P&D	1	P	\$ 308,000				
Park View		PD-CW-20-06	Wastewater System Improvements	2020	P&D	P&D	1	P	\$ 310,000				
Rockwell City	W2018-0350	PD-CS-20-09	Planning construction of new WWTP	2020	P&D	P&D	1	P	\$ 677,500				
Saint Olaf		PD-CW-19-62	Wastewater system improvements	2020	P&D	P&D	1	P	\$ 35,000				
Wellsburg		PD-CW-19-60	Wastewater System Improvements	2020	P&D	P&D	1	P	\$ 140,000				
Indianola	S2015-0386	1920927 01	WWTP Replacement	2020	I, II	295	1	P	\$ 39,145,000				
Park View	S2018-0348	1920925 01	Wastewater System Improvements	2020	II	245	1	P	\$ 5,558,000				
Saint Olaf	S2018-0159	1920926 01	Wastewater system improvements	2020	II	240	1	P	\$ 250,000				
Fontanelle	S2019-0094	1920922 01		2020	II	237	1	P	\$ 2,520,000				
Bloomfield	S2019-0054	1920921 01	Wastewater system improvements for compliance	2020	II	235	1	P	\$ 6,870,000				
Tipton	S2017-0094	1920928 01	Wastewater Treatment Plan Improvements 2016	2020	II	232	1	P	\$ 5,648,000				
Glidden	2016-0396	1920929 01	Wastewater Treatment Plant Improvements	2020	II	224	1	P	\$ 3,980,000				
Wellsburg	S2014-0285	1920923 01	Wastewater System Improvements	2020	II	224	1	P	\$ 1,739,000				
Guttenberg	S2019-0196	1920924 01	Inflow & Infiltration Improvements	2020	V	172	1	P	\$ 517,000				
Grundy Center	2019-0287	1920930 01	2019 Sanitary Sewer Improvements	2020	III-A	145	1	P	\$ 2,407,000				
Bettendorf	N/A	GNS19-02	FMA Property Acquisition to mitigate flood damage and water pollution	2020	VII-K		1	P	\$ 2,100,886				
Johnston	N/A	GNS-19-01	Saylorville Sediment and Erosion Reduction	2020	VII-K		1	P	\$ 400,000				
Lake Park		PD-CW-20-08	WWTP Improvements Planning	2020	P&D	P&D	1	P	\$ 440,000				
Mediapolis		PD-CW-20-03	Planning for pipeline replacement and manhole installation	2020	P&D	P&D	1	P	\$ 100,000				
Peterson		PD-CW-20-12	WWTP Improvements	2020	P&D	P&D	1	P	\$ 116,000				
Pella	S2017-0215	1920918 01	Rehab existing WWTP and 3 pump stations, add capacity to WWTP	2019	I, II & IV-B	305	4	P	\$ 5,769,000				
Mt Pleasant	S2015-0081	1920919 01	abandon lagoon and pump to main plant. Eliminates a discharge. Add nutrient removal to existing plant and UV disinfection.	2019	I, II & IV-B	324	4	P	\$ 4,020,000				
Columbus Junction	S2016-0171	1920913 01	UV disinfection and change outfall location to meet limits in compliance schedule	2019	II	270	4	P	\$ 302,000				
Peosta	S2016-0180	1920912 01	New mechanical plant, activated sludge, nutrient removal, disinfection, sludge handling	2019	I & II	264	4	P	\$ 8,184,000				

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Ladora	S2017-0239	1920911 01	New pumping station, disinfection for the WWTP, and aeration system replacement	2019	II & IV-B	244	4	P	\$ 1,051,000				
Preston	S2018-0180	1920910 01	Add Nitrox MBBR to existing lagoons and disinfection	2019	II	224	4	P	\$ 1,427,000				
Wastwater Reclamation Authority	S2019-0006	1920914 01	Primary and Final Clarifier rotating mechanism replacements	2019	I	180	4	P	\$ 30,486,675				
Fayette	S2016-0375	1920812 02	Sewer Spot Repairs for CIPP project-Supplemental Loan	2019	IIIA	154	4	R	\$ 130,000				
Spencer	S2014-0044	1920920 01	rehab clarifier, add another final clarifier	2019	I	149	4	P	\$ 2,960,000				
Sumner	S2019-0180	1920916 01	Sewer relocation and new pumping station	2019	III-B & IV-B	149	4	P	\$ 296,000				
Mitchellville	S2018-0295	1920915 01	Replace existing pumping station in collection system	2019	IV-B	137	4	P	\$ 1,603,000				
Underwood	S2013-0176B	1920917 01	Pumping Station upgrades to two existing stations	2019	IV-B	132	4	P	\$ 930,000				
Anita		PD-CW-19-49	Upgrade to influent lift station, pumps and replacement of aerated lagoon blowers/diffusers	2019		P&D	4	P	\$ 520,000				
Bloomfield		PD-CW-19-52	Wastewater Treatment Facility Improvements	2019		P&D	4	P	\$ 381,100				
Conrad		PD-CW-19-51	Construction of UV Disinfection	2019		P&D	4	L			3/22/19	\$ 70,000	\$ 70,000
Evansdale		PD-CW-19-53	WWTP Improvements	2019		P&D	4	L			4/5/19	\$ 550,000	\$ 550,000
Fontanelle		PD-CW-19-54	Wastewater Treatment Facility Improvements	2019		P&D	4	L			3/29/19	\$ 267,500	\$ 267,500
Ladora		PD-CW-19-55	New Lift Station and wastewater treatment facility improvements	2019		P&D	4	P	\$ 111,000				
North English		PD-CW-19-57	Rehabilitation of Sanitary Sewer Collection and replacement of Wastewater Treatment Facilities	2019		P&D	4	L			3/22/19	\$ 400,000	\$ 400,000
Oxford Junction		PD-CW-19-48	Sanitary Sewer Rehabilitation	2019		P&D	4	L			3/29/19	\$ 100,000	\$ 100,000
Pomeroy		PD-CW-19-56	Wastewater System Improvements	2019		P&D	4	L			3/29/19	\$ 180,000	\$ 180,000
Preston		PD-CW-19-59	Add Nitrox MBBR to existing lagoons and disinfection	2019		P&D	4	P	\$ 155,000				
Underwood		PD-CW-19-47	Pumping Station upgrades to two existing stations	2019		P&D	4	P	\$ 65,000				
Waverly		PD-CW-19-50	Nutrient Reduction Improvements	2019		P&D	4	P	\$ 780,000				
Adel		PD-CW-19-39	Construction of new wastewater treatment facility	2019		P&D	3	L			12/28/18	\$ 1,200,000	\$ 1,200,000
Brighton		PD-CS-19-36	Install a new SAGR system	2019		P&D	3	L			12/21/18	\$ 426,000	\$ 426,000
Ely		PD-CW-19-35	Extend Sanitary Sewer	2019		P&D	3	L			11/30/2018	\$ 160,100	\$ 160,100

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Essex		PD-CW-19-31	Wastewater system and sewer mains	2019		P&D	3	P	\$ 85,000				
Goodell		PD-CW-19-33	New wastewater collection and treatment system	2019		P&D	3	L			2/8/2019	\$ 163,425	\$ 163,425
Perry		PD-CW-19-38	Wastewater Facility Plant Upgrade	2019		P&D	3	L			12/21/18	\$ 870,000	\$ 870,000
Rembrandt		1920776 01	relining sewer lines or putting in a lagoon or another cell	2019		P&D	3	L			4/19/19	\$ 70,000	\$ 70,000
Davenport	S2018-0145	1920896 91	UV Disinfection	2019	II	260	3	P	\$ 8,490,000				
Cambridge	S2016-0380	1920902 01	New diffuser to meet ammonia limits and UV disinfection	2019	II	255	3	P	\$ 633,000				
Maxwell	S2017-0135	1920901 01	Lemna system and UV disinfection	2019	II	250	3	P	\$ 3,009,000				
Eldon	S2016-0240A	1920903 01	CIPP lining for I&I	2019	IIIA	235	3	P	\$ 1,005,000				
Tripoli	S2017-0155	1920900 01	New discharge to Wapsi River, UV disinfection, new raw wastewater pumps	2019	II	232	3	P	\$ 2,010,000				
Bayard	S2017-0231	1920909 01	Construction of new 3 Cell controlled discharge lagoon system	2019	II	229	3	P	\$ 2,673,000				
Dallas Center	S2016-0399	1920905 01	SAGR and UV disinfection	2019	II	227	3	P	\$ 3,025,000				
Schleswig	S2017-0450	1920899 01	New lift station, lemna syste, UV disinfectin, new outfall, and emergency generator	2019	II	224	3	P	\$ 3,748,000				
Everly	S0217-0336	1920906 01	Increase pump station capacity and convert CDL to an aerated lagoon	2019	I	215	3	P	\$ 2,725,000				
Wapello	S2018-0317	1920907 01	Disconnect Combined Sewers	2019	V	195	3	P	\$ 342,626				
Fort Dodge	S2015-0080	1920908 01	Sanitary Sewer Rehabilitation Phase 2	2019	IIIA, IIIB	190	3	P	\$ 15,533,999				
Hawarden	S2018-0375	1920897 01	Rehab activated sludge/digester aeration system, backup power, clarifier improvements	2019	I	170	3	P	\$ 3,179,000				
Hubbard	S2017-0079	1920898 01	CIPP lining for I&I, manhole repair	2019	IIIA	134	3	P	\$ 624,000				
Mediapolis	S2015-0002	1920904 01	CIPP lining for I&I repair	2019	IIIA	129	3	P	\$ 1,312,000				
Fort Dodge		PD-CW-19-32	Sanitary Sewer Rehabilitation Phase 2	2019		P&D	3	L			12/28/18	\$ 1,250,000	\$ 1,250,000
Tipton		PD-CW-19-34	Wastewater Treatment Improvements	2019		P&D	3	L			12/21/18	\$ 435,000	\$ 435,000
Albia		PD-CW-19-28	Improvements to North & West Wastewater Treatment Facility	2019	II	P&D	2	L			12/14/18	\$ 790,000	790-000
Cambridge		PD-CW-19-22	Construction of new effluent diffuser at South Skunk River and new UV disinfection system	2019		P&D	2	L			10/19/18	\$ 200,000	\$ 200,000
Farnhamville		PD-CW-19-27	Wastewater System Improvements	2019	II	P&D	2	L			10/26/18	\$ 38,000	\$ 38,000
Hubbard		PD-CW-19-23	Sanitary Sewer Improvements	2019		P&D	2	L			10/26/18	\$ 200,000	\$ 200,000
Ida Grove		PD-CW-19-20	Wastewater Treatment Facility Improvements	2019	II	P&D	2	L			9/28/18	\$ 480,000	\$ 480,000

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Lewis		PD-CW-19-25	Sanitary Sewer Improvements and construction of new cell at wastewater treatment lagoon	2019		P&D	2	L			10/26/18	\$ 225,000	\$ 225,000
Ottumwa		PD-CW-19-29	Construction of new separate sanitary sewer throughout Blake's Branch Basin	2019		P&D	2	P	\$ 3,900,000				
Peosta		PD-CW-19-26	Construction of new wastewater treatment facility	2019		P&D	2	L			10/12/18	\$ 1,105,500	\$ 1,105,500
Traer		PD-CW-19-19	Wastewater Treatment Facility Improvements	2019	II	P&D	2	L			11/30/18	\$ 500,000	\$ 500,000
Winterset		PD-CW-19-24	Replacement of North Pump Station	2019		P&D	2	L			9/28/18	\$ 105,000	\$ 105,000
Blairstown	S2017-0311	1920889 01	Aerated Lagoon with Disinfection	2019	I, II	282	2	P	\$ 1,173,000				
Lake Mills	S2017-0385	1920894 01	WWTF Improvements (SAGR)	2019	I, II	277	2	P	\$ 1,799,000				
DeWitt	S2018-0262	1920895 01	WWTF Disinfection Improvements	2019	II	224	2	P	\$ 955,000				
Waverly	S2018-0335	1920892 01	WWTP Improvements	2019	IV-B	205	2	P	\$ 9,132,435				
Waterloo	S2017-0196	1920893 01	New Interceptor Sewer	2019	IV-B	175	2	P	\$ 5,771,000				
Winterset	S2018-0411	1920890 01	North Pump Station Improvements	2019	IV-B	127	2	P	\$ 1,129,000				
Lone Tree		PD-CW-19-06	WWTF Upgrades	2019		P&D	1	L			6/22/18	\$ 460,000	\$ 460,000
New Albin		PD-CW-19-10	Construction of new AlgaeWheel wastewater treatment plant, including new screening and lift station	2019		P&D	1	L			7/13/18	\$ 175,000	\$ 175,000
Wastewater Reclamation Authority		PD-CW-19-07	Sewer Lining	2019		P&D	1	L			6/29/18	\$ 2,200,000	\$ 2,200,000
Wastewater Reclamation Authority		PD-CW-19-08	WRF Clarifiers	2019		P&D	1	L			6/29/18	\$ 585,000	\$ 585,000
Waukon		PD-CW-19-11	Construction of new wastewater treatment plant	2019		P&D	1	L			6/22/18	\$ 658,000	\$ 658,000
West Union		PD-CW-19-12	Construction of new wastewater treatment plant	2019		P&D	1	L			6/22/18	\$ 430,000	\$ 430,000
Winfield		PD-CW-19-09	Modification of lagoons, additional treatment process, addition of UV disinfection	2019		P&D	1	L			6/29/18	\$ 310,000	\$ 310,000
West Union	S2017-0426	1920887 01	New WWTP	2019	I, II	295	1	P	\$ 6,561,000				
Hartford	S2017-0245	1920877 01	Removal of biosolids from existing lagoons, construction of covered aerated lagoon system with polishing reactor, conversion of existing lagoon into equalization basin, instation of UV disinfection, and addition of emergency generator	2019	I, II	285	1	P	\$ 2,381,000				
Lone Tree	S2016-0010	1920883 01	EQ, new WWTP and disinfection	2019	I, II	279	1	P	\$ 5,862,000				

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Osceola	S2016-0112	1920878 01	Construction of new activated sludge treatment plant, addition of UV disinfection, cogeneration of power from methane digester	2019	I, II	277	1	P	\$ 25,554,000				
Auburn	W2018-0247	1920931 01	Lagoon Facility Improvements	2019	I	245	1	P	\$ 227,000				
West Point	S2017-0004	1920880 01	SAGR treatment system	2019	II	219	1	P	\$ 1,506,000				
Clinton	S2018-0233	1920886 01	Part of LTCP. Construction of new pump station and sanitary sewer	2019	V	197	1	P	\$ 7,437,000				
Waterloo (Sanitary Gatewell Repairs)	S2018-0100	1920884 01	new gate wells and sanitary sewer	2019	III-B	185	1	P	\$ 3,581,000				
Independence	S2017-0122	1920881 01	Repairs to buildings, valves, piping, covers. Replacement of pump in pump station, and other WWTP improvements	2019	II	180	1	L			12/21/18	\$ 1,565,000	\$ 1,565,000
Wastewater Reclamation Authority	S2018-0315	1920885 01	Trickling filter removal for flood improvements	2019	V	180	1	L			12/7/18	\$6,767,000	\$ 6,000,000
Davenport	S2018-0177	1920888 01	I&I work. Replace a leaking interceptor sewer.	2019	IIIA	150	1	P	\$ 9,055,334				
Waukee (SW Area Trunk Sewer-Phase 2)	S2018-0083	1920882 01	extend trunk sewer to provide service to SW area of the city	2019	IV-B	145	1	P	\$ 1,690,000				
Bennett		PD-CW-18-43	Wastewater treatment upgrades to comply with bacteria standards	2018	II	P&D	4	L			3/23/18	\$ 399,000	\$ 399,000
Clarinda	S2017-0100	PD-CW-18-41	Wastewater treatment facility improvements	2018	II	P&D	4	L			4/27/18	\$ 920,000	\$ 920,000
Dickinson County	GNS18-1	PD-CW-18-50	Design stormwater wetland to treat runoff into East Okoboji Lake	2018	VIK	P&D	4	L			6/8/18	\$ 80,000	\$ 80,000
Gilbert	S2010-0025	PD-CW-18-54	Convert existing controlled lagoon system to continuous discharge aerated lagoon system. Supplemental ammonia removal process and UV disinfection will be included	2018		P&D	4	L			4/6/18	\$ 292,750	\$ 312,000
Hawkeye	S1018-0194	PD-CW-18-40	Sewer rehabilitation	2018	IIIA	P&D	4	L			4/27/18	\$ 50,000	\$ 50,000
Keokuk	S2018-0212	PD-CW-18-39	Combined sewer separation	2018	V	P&D	4	R	\$ 760,000				
Osceola	S2016-0112	PD-CW-18-38	Wastewater treatment facility improvements	2018	II	P&D	4	L			3/23/18	\$ 1,220,000	\$ 1,220,000
Sac City		PD-CW-18-44	Infiltration and inflow correction in sanitary sewers	2018	IIIA	P&D	4	L			3/30/18	\$ 195,000	\$ 195,000
Sully	S2016-0092	PD-CW-18-53	Sewage Treatment Plant Improvements to comply with new permit limit.	2018		P&D	4	P	\$ 105,000				
Zwingle		PD-CW-18-42	Address permit limits on bacteria and ammonia	2018	II	P&D	4	R	\$ 125,000				

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Madrid	S2017-0223	1920879 01	Construction of improvements to wastewater treatment plant to meet new effluent limits, including activated sludge units, equalization basin, and UV disinfection	2018	I, II	290	4	P	\$ 4,951,000				
Clarinda	S2017-0100	1920873 01	Major upgrade of aging wastewater treatment facility, including replacement of trickling filters with activated sludge, aerobic digestion, and biosolids storage	2018	I, II	272	4	P	\$ 12,000,000				
New Albin	S2013-0348	1920871 01	Construct new wastewater treatment plant to meet effluent limits, replace aging facilities, and provide redundant operation	2018	I, II	264	4	P	\$ 1,860,000				
Waukon	S2017-0205A	1920875 01	Construct new wastewater treatment plant to address effluent violations and add UV disinfection and nutrient reduction	2018	I, II	264	4	L	\$ 2,525,000		4/19/19	\$ 12,525,000	\$ 10,000,000
Charles City	S2016-0468	1920876 01	Construct major upgrades to wastewater treatment facility to replace aging equipment and accommodate increases from industrial sources	2018	I, II	245	4	P	\$ 16,484,000				
Mitchellville	S2017-0458	1920869 01	Installation of UV disinfection to meet more stringent effluent limits in new NPDES permit	2018	II	242	4	P	\$ 698,475				
Sigourney	S2016-0181	1920870 01	Installation of submerged growth activated reactor (SAGR) system after existing aerated lagoons to meet requirement of new NPDES permit	2018	II	224	4	P	\$ 5,070,225				
Ely	S2018-0133	1920865 01	Extend sanitary sewers to areas currently on individual septic systems and increase sewer capacity in other areas	2018	IVA, IVB	184	4	P	\$ 1,779,000				
Alton	S2018-0032	1920864 01	Removal of sludge in three-cell lagoon system to reduce chloride, rehabilitation of structures, pipes, and valves	2018	IIIB	172	4	L			7/6/18	\$ 1,056,000	\$ 1,056,000
Melcher-Dallas	S2018-0146	1920866 01	Address infiltration and inflow into the City's sanitary sewer system utilizing a variety of rehabilitation techniques	2018	IIIA	172	4	P	\$ 1,272,000				

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Keokuk	S2018-0212	1920872 01	Next phase of combined sewer separation under Long Term Control Plan - construct outlet to Mississippi River	2018	V	167	4	P	\$ 14,171,000				
Lynnville	S2018-0216	1920874 01	Address infiltration and inflow into the City's sanitary sewer system	2018	IIIA	157	4	P	\$ 415,000				
Hawkeye	S2018-0194	1920868 01	Address infiltration and inflow into the City's sanitary sewer system utilizing a variety of rehabilitation techniques	2018	IIIA	114	4	P	\$ 523,000				
Ackley	S2016-0039	PD-CW-18-36	Sanitary sewer relining to address inflow/infiltration which is causing basement backups	2018	IIIA	P&D	3	L			1/12/18	\$ 155,000	\$ 155,000
Adel	S2018-0143	PD-CW-18-34	Plan sanitary sewer collection system improvements	2018	IIIB	P&D	3	L			1/5/18	\$ 580,050	\$ 580,050
Dallas Center	S2016-0399	PD-CW-18-33	Plan upgrade to wastewater treatment system to meet new NPDES permit limits on ammonia and bacteria	2018	II	P&D	3	R	\$ 210,000				
DeWitt		PD-CW-18-37	Plan upgrade to wastewater treatment system to meet new NPDES permit limits on ammonia and bacteria	2018	II	P&D	3	L			1/5/18	\$ 88,750	\$ 88,750
Lowden	W2017-0362	PD-CW-18-35	Replace existing treatment works with three continuous discharge lagoons followed by SAGR and UV disinfection to meet new NPDES effluent limits	2018	I,II	P&D	3	L			12/29/17	\$ 399,100	\$ 400,000
Schleswig	W2017-0450	PD-CW-18-32	Plan upgrade to wastewater treatment system to meet new NPDES permit limits on ammonia and bacteria	2018	II	P&D	3	L			12/29/17	\$ 180,000	\$ 180,000
Lowden	S2017-0362	1920862 01	Replace existing treatment works with three continuous discharge lagoons followed by SAGR and UV disinfection to meet new NPDES effluent limits	2018	I,II	274	3	P	\$ 4,059,000				
Montezuma	S2016-0051	1920859 01	Convert existing aerated lagoon to enhanced treatment with addition of SAGR and UV disinfection to meet new NPDES effluent limits	2018	I,II	267	3	P	\$ 4,589,936				



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Des Moines	S2018-0068	1920858 01	Combined sewer separation in the King-Irving neighborhood to meet the requirements of the City of Des Moines long-term control plan	2018	V	235	3	P	\$ 15,260,000				
Waukee (Little Walnut Creek Trunk Sewer-Ph 3)	S2018-0084	1920861 01	Construct trunk sewer to provide sanitary sewer service to new high school and northwest area of city	2018	IVB	160	3	L			7/6/18	\$ 3,513,000	\$ 2,948,000
Ackley	S2016-0039	1920863 01	Sanitary sewer relining to address inflow/infiltration which is causing basement backups	2018	IIIA	142	3	L			8/31/18	\$ 3,047,000	\$ 3,200,000
Eldon	S2016-0240A	PD-CW-18-22	Disinfection, sewer rehabilitation	2018	II, IIIB	P&D	2	L			9/22/2017	\$ 200,000	\$ 200,000
Maxwell	S2017-0135	PD-CW-18-23	WWTP improvements to address e. coli and ammonia removal requirements	2018	II	P&D	2	R	\$ 38,000				
Mechanicsville	W2017-0296A	PD-CW-18-24	WWTP improvements to address e. coli and ammonia removal requirements	2018	II	P&D	2	R	\$ 320,000				
Miles	S2013-0064	PD-CW-18-25	WWTP upgrade	2018	II	P&D	2	L			1/26/2018	\$ 154,000	\$ 154,000
Tipton		PD-CW-18-26	Sanitary sewer rehabilitation	2018	IIIB	P&D	2	R	\$ 500,000				
Wayland	S2017-0271A	PD-CW-18-27	WWTP improvements to address e. coli and ammonia removal requirements, I/I reduction in sanitary sewers	2018	II, IIIA	P&D	2	R	\$ 180,000				
Nora Springs	S2016-0216A	CS1920857 01	New activated sludge wastewater treatment facility to meet effluent limits	2018	II	295	2	P	\$ 7,497,000				
Smithland	S2017-0060	1920856 01	Install UV disinfection to comply with e. coli limits. Implement sewer lining to reduce I/I and increase wastewater treatment efficiency	2018	II, IIIA	285	2	P	\$ 915,000				
Wilton	S2015-0204	1920850 01	Construction of new WWTP to meet new effluent limits, including UV disinfection.	2018	I, II	282	2	L			6/29/18	\$ 6,211,000	\$ 6,211,000
Pocahontas	S2017-0028	1920855 R1	Sanitary sewer lining to decrease I/I; UV disinfection; and other wastewater treatment plant improvements	2018	II, IIIA	254	2	L	\$ 1,528,000		9/28/2018	\$ 2,892,000	\$ 1,364,000
Mount Vernon	S2017-0177	1920853 01	Installation of UV disinfection to meet effluent limits; replacement of main lift screw pumps and rehabilitation of clarifier mechanisms	2018	II	250	2	P	\$ 1,766,000				

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Estherville	S2016-0265	1920849 01	Construction of an activated sludge basin, new blower building, new wastewater and air piping. Abandonment of existing tricking filters. New NPDES permit requires upgrades.	2018	II	237	2	P	\$ 15,926,000				
Monroe	S2015-0337	1920852 01	Expand lagoon capacity but increasing size of primary cell and adding another secondary cell	2018	I	235	2	P	\$ 3,552,675				
Allerton	S2015-0086	1920854 01	Sanitary sewer lining and manhole rehabilitation to decrease I/I	2018	IIIA	175	2	P	\$ 271,000				
Spencer	S2016-0203B	1920745 03	Combined sewer separation, Phase II	2018	V	174	2	L			6/22/18	\$ 2,148,000	\$ 1,508,000
Wright County (Eagle Grove)	S2015-0355	1920851 01	Finance county share of wastewater treatment system upgrade in Eagle Grove	2018	I, II	174	2	L			12/1/2017	\$ 4,046,000	\$ 4,046,000
Blairstown		PD-CW-18-15	Improvements to an aerated lagoon	2018	I	P&D	1	L			1/26/18	\$ 147,500	\$ 147,500
Glidden		PD-CW-18-07	Construction of a new aerated lagoon facility	2018	I	P&D	1	R	\$ 215,000				
Madrid		PD-CW-18-13	Wastewater Treatment Facility upgrade	2018	II	P&D	1	L			8/25/17	\$ 460,000	\$ 460,000
Wastewater Reclamation Authority		PD-CW-18-14	WRF Phosphorus Recovery Facility project	2018	II	P&D	1	L			12/15/17	\$1,600,000	\$ 1,600,000
West-High Amana SSD		PD-CW-18-12	Improvements to aerated lagoon to comply with e. coli and ammonia standards	2018	II	P&D	1	L			11/17/17	\$ 85,000	\$ 85,000
Sioux Center	S2016-0169	1920838 R1/G1/RT1	Construction of a new main lift station, preliminary treatment, activated sludge with biological nutrient removal, UV disinfection, and aerated digestion	2018	I, II, IVB	297	1	L			1/12/18	\$ 28,140,000	\$ 26,742,000
Merrill	S2015-0366	1920846 01	Wastewater treatment facility improvements	2018	I, II	295	1	L			6/1/18	\$ 2,514,000	\$ 1,300,000
Scranton	S2016-0048	1920847 01	Convert existing aerated lagoon to an enhanced one with the addition of a SAGR system	2018	I, II	290	1	P	\$ 2,137,133				
Gilbert	S2010-0025	1920844 01	Convert existing controlled lagoon system to continuous discharge aerated lagoon system. Supplemental ammonia removal process and UV disinfection will be included	2018	I, II	274	1	L			8/3/2018	\$ 3,819,000	\$ 4,548,000
Eagle Grove	S2015-0355	1920841 01	Wastewater Treatment System Upgrade	2018	I, II	264	1	L			12/1/2017	\$ 19,576,000	\$ 28,130,000
Central City	2017-0057A	1920836 01	WWTP Expansion to include ammonia removal and disinfection. Gravity sewer expanded to allow for removal of lift station	2018	II, IV-A	259	1	L			1/25/19	\$ 4,069,000	\$ 4,084,000

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Burlington	S2017-0262	1920843 01	Replacement of a new sanitary sewer along the existing combined sewer alignment	2018	V	247	1	P	\$ 6,197,000				
Roland	S2016-0050	1920826 01	Convert existing aerated lagoon to enhanced treatment aerated lagoon with the addition of Lemna system to meet new effluent ammonia limits. Addition of UV disinfection.	2018	II	242	1	L			11/30/2018	\$ 2,886,360	\$ 4,100,000
Sully	S2016-0092	1920837 01	Sewage Treatment Plant Improvements to comply with new permit limit.	2018	II	242	1	P	\$ 1,065,000				
Stanwood	S2017-0085A	1920835 01	Improvements include Submerged Attached Growth Reactors installation for removal of ammonia nitrogen with recycle loop for total nitrogen removal. New diffused aeration system.	2018	II	224	1	P	\$ 2,280,646				
Tiffin	S2015-0202	1920842 01	Wastewater Treatment Plant Improvements - Phase 2	2018	I, II	189	1	L			5/11/18	\$ 6,598,000	\$ 6,754,000
Marshalltown	S2017-0286	1920840 01	Lamp hole, tee, and manhole replacements with new manholes, along with pipe point repairs	2018	III-A	165	1	P	\$ 3,500,000				
Lisbon	S2017-0295	1920839 01	Rehabilitation of existing sanitary sewer collection system to reduce I&I	2018	III-A	155	1	L			8/17/18	\$ 1,489,000	\$ 658,000
Lisbon	S2017-0295	1920839 S1	Rehabilitation of existing sanitary sewer collection system to reduce I&I	2018	III-A	155	1	L			12/7/18	\$ 272,000	\$ 272,000
Oskaloosa	S2017-0294	1920845 01	Address inflow and infiltration to prevent bypassing through manhole rehabilitation, sewer replacement, and sewer lining	2018	IIIA	142	1	L	\$ 4,446,000		5/25/18	\$ 8,268,000	\$ 3,822,000
Indianola	S2017-0298	1920848 01	Morlock Lift Station Sanitary Sewer Improvements	2018	IVA, IVB	129	1	L			12/1/17	\$ 3,291,375	\$ 3,267,000
Pierson		PD-CW-17-42	Inflow/infiltration correction	2017	IIIA	P&D	4	R	\$ 96,000				
Pisgah		PD-CW-17-45	Inflow/infiltration correction	2017	IIIA	P&D	4	R	\$ 43,825				
Sheldahl		PD-CW-17-41	Analysis of treating own wastewater or continuing to pump to Slater	2017	I	P&D	4	R	\$ 20,000				
LeGrand	S2015-0434	1920821 01	Convert existing lagoon to a controlled discharge	2017	I,II	295	4	P	\$ 2,389,000				
Greenfield	S2013-0215	1920822 01	Construct a new activated sludge treatment plant at a new site.	2017	I,II	285	4	L	\$ 2,596,000		12/8/17	\$ 6,342,000	\$ 5,193,000
Greenfield	S2013-0215	1920822 G1	Construct a new activated sludge treatment plant at a new site.	2017	I,II	285	4	L			7/27/18	\$ 2,596,000	\$ 2,596,000

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Winthrop	S2016-0312	1920827 01	Converting existing aerated lagoon into covered aerated lagoon followed by a submerged fixed film polishing reactor (Lemna system) to improve ammonia removal, upsizing existing Main lift station.	2017	II	274	4	P	\$ 2,075,000				
Slater	S2016-0070	1920820 01	Wastewater Treatment Facility Improvements	2017	I,II	267	4	P	\$ 6,650,000				
Lake View	S2015-0174	1920828 01	Construction of a new enhanced aerated lagoon system using LEMNA or SAGR	2017	I,II	264	4	L		30% up to \$1,000,000	7/20/18	\$ 4,696,000	\$ 6,700,000
New Sharon	S2015-0384	1920829 01	Improvements to treatment plant including addition of treatment units to allow facility to meet new discharge limits	2017	I,IIIA	242	4	L			9/28/18	\$ 2,376,000	\$ 2,376,000
Calmar	S2015-0451	1920823 01	Utilization of a new Submerged Attached Growth Reactor (SAGR) System for their existing aerated lagoon and a new Ultraviolet (UV) disinfection system	2017	II	240	4	L		30%	5/25/18	\$ 3,501,000	\$ 2,977,000
Klemme	S2013-0199	1920833 01	Meet effluent limits by constructing an equalization basin, UV disinfection, and a new outfall	2017	II	240	4	L			7/27/18	\$ 1,206,000	\$ 1,287,000
Creston	S2015-0383	1920834 01	Repair/replacement of aging infrastructure and addition of disinfection	2017	I, II	232	4	L			1/18/2019	\$ 3,216,000	\$ 3,216,000
Mediapolis	S2015-0002	1920832 01	WW Lagoon Improvements - Phase 1 Sewer Rehab	2017	II	174	4	L			1/5/18	\$ 1,759,000	\$ 1,107,000
Garrison	S2015-0228	1920830 01	Collection System Rehabilitation	2017	IIIA,IIIB	169	4	L	\$ 300,000		5/25/18	\$ 665,000	\$ 365,000
Garrison	S2015-0228	1920830 R1	Collection System Rehabilitation	2017	IIIA,IIIB	169	4	L			8/24/18	\$ 300,000	\$ 182,000
Springville	S2016-0174	1920824 01	Sanitary sanitary sewer collection system improvements	2017	IIIA,IVB	144	4	L			5/11/18	\$ 956,000	\$ 956,000
Moville	S2017-0190	1920825 01	Replacement of a new lift station, sized to account for future growth of the city and increased I/I. Two submersible pumps will be installed, and the City will have option to install a grinder pump	2017	IVB	122	4	L			9/22/2017	\$ 875,000	\$ 856,000
Modale		PD-CW-17-30	Lagoon Rehabilitation	2017	I	P&D	3	R	\$ 60,500				
Tipton		PD-CW-17-32	Wastewater treatment improvements to meet effluent ammonia, E.coli, and metels requirements in the city's NPDES Permits	2017	II	P&D	3	L			7/7/17	\$ 300,000	\$ 300,000

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Ogden	S2014-0142	1920816 01	Plant upgraded to meet NPDES Permit	2017	I,II	280	3	L			3/30/18	\$ 4,809,126	\$ 5,429,000
Eldridge	S2015-0001	1920818 01	Change lagoons to equalization basins. New Lift Station, force main, gravity sewer, increased SBR treatment capacity at South Slope, addition of disinfection and sludge treatment improvements	2017	I, II, IVB	264	3	L	\$ 8,970,000		7/20/2018	\$ 14,970,000	\$ 6,000,000
Eldridge	S2015-0001	1920818 G1	Change lagoons to equalization basins. New Lift Station, force main, gravity sewer, increased SBR treatment capacity at South Slope, addition of disinfection and sludge treatment improvements	2017	I, II, IVB	264	3	L			11/16/2018	\$ 8,970,000	\$ 9,000,000
Corydon	S2014-0043	1920815 01	Wastewater Treatment Facility Improvements	2017	II	237	3	P	\$ 3,304,000				
Ames	S2017-0017	1920819 01	Water Pollution Control Facility	2017	I	170	3	P	\$ 625,000				
Hubbard	S2017-0079	1920817 01	Sanitary Sewer Construction and Rehabilitation	2017	IIIA	152	3	R	\$ 1,399,000		12/29/17	\$ 2,176,000	\$ 777,000
Moravia		PD-CW-17-31	I&I reduction in sewer collection system	2017	IIIA	P&D	2	R	\$ 115,000				
Shenandoah	S2016-0002	1920806 01	3 phase wastewater treatment facility improvements - Phase 1: Solids Treatment & Disposal - Phase 2: Collection System and Wastewater Plant Permit Compliance - Phase 3: Wastewater Treatment Facility Nutrient Reduction Strategy	2017	I,II	290	2	L			9/8/17	\$ 643,000	\$ 833,000
Allison	S2014-0095	1920802 01	Wastewater Treatment Facility Improvements	2017	II	260	2	L			12/1/17	\$ 2,367,268	\$ 2,112,000
Woodward	S2015-0344	1920814 01	Convert existing aerated lagoon to enhanced treatment aerated lagoon with the addition of a Lemna system. Addition of UV disinfection for new e.coli limits	2017	II	242	2	L			1/11/19	\$ 5,715,938	\$ 5,716,000
Sioux City	S2016-0389	1920813 01	Improve various treatment plant equipment to renew initial capacity, improve performance, improve reliability and generate biogas.	2017	I,II	217	2	P	\$ 31,983,398				
Waterloo (CIPP Phase III)	S2016-0285	1920811 01	Excavating and repairing pipe using traditional methods. Rehabilitate sanitary sewers and rehabilitate manholes that have deteriorated.	2017	III-A	185	2	L	\$ 898,000		5/18/18	\$ 2,498,000	\$ 1,600,000

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Waterloo (CIPP Phase III)	S2016-0285	1920811 02	Excavating and repairing pipe using traditional methods. Rehabilitate sanitary sewers and rehabilitate manholes that have deteriorated.	2017	III-A	185	2	L			4/19/19	\$ 898,000	\$ 898,000
Wastewater Reclamation Authority	S2016-0238	1920805 01	Replace with stacked tray (HeadCell) grit removal technology in the vicinity of existing grit aerated grit chambers.	2017	I	180	2	L	\$ 5,300,000		5/18/18	\$ 9,500,000	\$ 4,200,000
Waterloo (Instrumentation & Controls Systems)	S2016-0365A	1920809 01	Upgrade current Programmable Logic Controllers (PLCs). Upgrade current Supervisory Control & Data Acquisition (SCADA) system communication protocol. Add fiber Optic for bringing new systems onto the network	2017	II	180	2	L			4/19/19	\$ 1,089,000	\$ 1,179,000
Waterloo (Flow Equalization Facility Overflow Connection to Satellite WPCF)	S2015-0284	1920808 01	Install new gravity line from existing equalization basin to the Satellite Aeration basins. Also include discharge pipe from the Satellite basins to the Easton Aeration Basin	2017	I	170	2	P	\$ 978,000				
Fayette	S2016-0375	1920812 01	Slip lining approximately 5,320 feet of sanitary sewer main and completing spot repairs at 10 locations through the collection system.	2017	IIIA	154	2	L			9/28/18	\$ 319,999	\$ 415,000
Waterloo (Dry Run Creek Interceptor)	S2015-0280	1920807 01	New lift station, force main and gravity sewer are proposed	2017	IV-B	150	2	P	\$ 4,337,000				
Waukeee	S2016-0413	1920810 01	Upgrade existing lift station and force main	2017	IV-B	119	2	L			9/1/17	\$ 12,537,000	\$ 12,537,000
Algona	S2016-0239	PD-CW-17-01	Rehabilitation and reconstruction of the sanitary sewer collection system	2017	IIIB	P&D	1	R	\$ 130,000				
Slater		PD-CW-17-07	Wastewater treatment plant improvements necessary in order to meet ammonia-nitrogen, dissolved oxygen and E. coli discharge limits.	2017	II	P&D	1	R	\$ 461,000				
Des Moines	S2016-0194	1920795 R1	Near West Side: Construction of some new storm sewer systems, some new sanitary sewer and one pump station. Construction of a regional detention basin to mitigate increase of flooding	2017	IIIA, IIIB, IVA, V, VI	305	1	L	\$ 9,350,000		10/12/18	\$ 18,600,000	\$ 9,250,000

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Des Moines	S2016-0194	1920795 R2	Near West Side: Construction of some new storm sewer systems, some new sanitary sewer and one pump station. Construction of a regional detention basin to mitigate increase of flooding	2017	IIIA, IIIB, IVA, V, VI	305	1	L			10/12/18	\$ 9,350,000	\$ 9,250,000
Elkhart	S2015-0187	1920798 01	Construction of an outfall sewer leading from the existing wastewater treatment plant to the new wastewater treatment facility	2017	I, II, IVB	305	1	L			6/29/18	\$ 3,865,000	\$ 3,499,000
Elkhart (2nd loan)	S2015-0187	1920798 02	Construction of an outfall sewer leading from the existing wastewater treatment plant to the new wastewater treatment facility	2017	I, II, IVB	305	1	L			12/7/18	\$ 1,517,000	\$ 1,350,000
Norway	S2015-0209	1920794 01	Addition of a secondary treatment that is capable of treating the ammonia-nitrogen. Disinfection facilities will be installed to meet the e.coli effluent limits	2017	I, II	222	1	L	\$ 2,980,000		2/9/18	\$ 3,065,000	\$ 500,000
Norway	S2015-0209	1920794 01	Addition of a secondary treatment that is capable of treating the ammonia-nitrogen. Disinfection facilities will be installed to meet the e.coli effluent limits	2017	I, II	222	1	L			7/13/18	\$ 2,980,000	\$ 2,980,000
Algona	S2016-0239	1920796 01	Rehabilitation project to address I/I related and structural issues in existing sanitary sewer pipes and manholes	2017	IIIA, IIIB,	195	1	L			8/18/17	\$ 2,396,000	\$ 2,396,000
Wastewater Reclamation Authority	S2016-0243	1920797 R1	Biogas Conditioning & injection Improvements	2017	II	175	1	L	\$ 2,814,000		12/7/18	\$ 12,814,000	\$ 10,000,000
Emerson	S2015-0430	1920790 01	Collection System Improvements	2017	IIIA, IVB	159	1	P	\$ 1,023,200				
Lenox	S2013-0187	1920799 01	Construction of a submerged attached growth reactor (SAGR) system	2017	II	149	1	L			11/17/17	\$ 2,261,000	\$ 2,558,000
Oelwein	S2016-0256	1920793 01	Installation of two new wastewater pumps to increase capacity of existing 20th Street Lift Station. Improvements to the electrical service, existing control panel and addition of VFDs.	2017	IVB	122	1	L			4/13/18	\$ 248,000	\$ 338,000
Wastewater Reclamation Authority	S2016-0243	1920797 R2	Biogas Conditioning & injection Improvements	2017				L			12/7/18	\$ 2,814,000	\$ 8,000,000

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Wastewater Reclamation Authority	S2016-0238	1920805 02	Replace with stacked tray (HeadCell) grit removal technology in the vicinity of existing grit aerated grit chambers.	2017				L			12/7/18	\$ 5,300,000	\$ 11,300,000
Oelwein		PD-CW-16-40	Installation of new sanitary sewer	2016	IVA	P&D	4	R	\$ 33,500				
Mt Pleasant	S2015-0081	1920780 01	Main plant upgrades and sewer system	2016	II	275	4	L			8/25/2017	\$ 3,518,000	\$ 3,500,000
Des Moines	S2016-0196	1920781 R1	Lower Oak Park/Highland Park: Remove storm sewer inlets within the drainage basin that are connected to combined sewer and either eliminate or tie to dedicated storm sewers. Existing sewers will become dedicated sanitary sewers	2016	V	240	4	L	\$ 5,967,000		10/12/18	\$ 12,060,000	\$ 6,093,000
Des Moines	S2016-0196	1920781 R2	Lower Oak Park/Highland Park: Remove storm sewer inlets within the drainage basin that are connected to combined sewer and either eliminate or tie to dedicated storm sewers. Existing sewers will become dedicated sanitary sewers	2016	V	240	4	L			10/12/18	\$ 5,967,000	\$ 6,093,000
Johnston	S2016-0194	1920782 G1	Installation of sanitary sewer in area currently on septic systems, in the East of Merle Hay Neighborhood	2016	IVA, IVB	230	4	R	\$ 6,076,000				
Johnston	S2016-0194	1920782 G2	Installation of sanitary sewer in area currently on septic systems, in the East of Merle Hay Neighborhood	2016	IVA, IVB	230	4	L	\$ 4,070,000		4/12/19	\$ 4,070,000	\$ 4,070,000
Brandon	S2009-0160	1920779 01	Add a UV system (SAGR) to disinfect the effluent and meet the NPDES Permit requirements for E.Coli	2016	II	225	4	P	\$ 1,638,000				
Reinbeck	S2015-0175	1920776 01	Construct an UV disinfection system to meet the effluent limits dictated by The Iowa Department of Natural Resources and NPDES Permitting.	2016	II	225	4	L			11/30/18	\$ 596,000	\$ 792,000
West Union	S2015-0356	1920791 01	Construction of equalization basin and lift station along with installation of ultraviolet disinfection system.	2016	II	225	4	L			1/19/18	\$ 888,000	\$ 319,000



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Denison	S2016-0117	1920778 01	Replacement & Rehabilitation of structures and equipment approaching the end of their service lives	2016	II	190	4	L			7/13/18	\$ 8,653,000	\$ 10,206,000
Ames	S2016-0071	1920789 01	To improve screening at the WPCF city intends to replace existing channel grinder with a mechanical bar screen	2016	I	170	4	L			2/16/18	\$ 981,000	\$ 1,001,000
Fort Madison	S2016-0150	1920786 01	Construction of a new gravity sanitary sewer interceptor along H avenue to capture sanitary sewer flows from the north.	2016	IVB	152	4	L			8/18/17	\$ 3,250,170	\$ 2,668,000
Dubuque	S2016-0206	1920792 01	Relocation and reconstruction of sanitary sewer along Kerper Blvd.	2016	IIIB	147	4	L			3/8/19	\$ 4,308,300	\$ 2,763,000
Ames	S2013-0327	1920741 02	Address Infiltration and inflow into the City's sanitary sewer system utilizing a variety of rehabilitation techniques.	2016	IIIA	145	4	R	\$ 19,421,625				
Manning	S2016-0188	1920785 01	Replace existing sanitary sewer using materials and construction techniques for reduction in I&I	2016	IIIA	142	4	L			7/6/18	\$ 600,000	\$ 436,000
Bancroft	S2014-0136	1920777 01	Increase capacity of existing controlled discharge lagoon. Piping improvements within facility will also be done.	2016	I	139	4	L			7/13/18	\$ 1,061,682	\$ 1,258,000
Stanwood	S2016-0154	1920783 01	Removal, replacement and abandonment of gravity sanitary sewer and replace with a sanitary sewer that will reduce I/I in the collection system	2016	IIIA	127	4	R	\$ 276,800				
Mapleton	S2015-0440	PD-CW-16-30	Wastewater Treatment Improvements to comply with ammonia nitrogen limits, maintain TSS limits, and meet new NPDES standards	2016	I	P&D	3	R	\$ 225,000				
Fort Atkinson	S2015-0087	1920770 01	Construct a larger Lagoon that will only discharge once a year. Also includes an ultra violet disinfection system.	2016	I, II	290	3	P	\$ 1,249,000				
Coralville	S2014-0388	1920767 01	Improvements to the treatment system include expansion of equalization basin; new headworks; new aeration basins; final clarifiers, and replacement of UV disinfection system.	2016	I, II	250	3	L			10/12/18	\$ 36,106,000	\$ 36,106,000

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Greene	S2015-0235	1920775 01	Construct a new Submerged Attached Growth Reactor (SAGR) system for existing aerated lagoon and a new UV disinfection system.	2016	II	249	3	L			12/28/18	\$ 3,670,260	\$ 3,462,000
West Burlington	S2014-0456	1920766 01	Improvements include additional activated sludge treatment tankage and conversion of existing aerated lagoon cells in to flow equalization basins. New headworks facility and upgrades to existing aged equipment and standby power.	2016	I	214	3	L			7/21/17	\$ 10,000,000	\$ 10,985,000
St Donatus	S2011-0308	1920773 01	Relining existing two cell lagoon and construction of lift station	2016	I, IVB	185	3	L		30%	12/22/17	\$ 398,000	\$ 300,000
St Donatus	S2011-0308	1920773 R1	Relining existing two cell lagoon and construction of lift station	2016	I,IVB	185	3	L		30%	1/19/18	\$ 398,000	\$ 542,000
Marathon	S2015-0402	1920771 01	Construct a 3 cell controlled discharge lagoon to meet the NPDES Permit Limits	2016	I	162	3	P	\$ 1,171,000				
Davis City	S2016-0072	1920769 01	Rehabilitation of existing sanitary sewer mains and sanitary sewer manholes. Drainage & erosion improvements at the wastewater facility.	2016	IIIA	100	3	L			1/19/18	\$ 457,000	\$ 314,000
RUSS(Moar/Powdertown)		PD-CW-16-11		2016	I,IVA	P&D	2	R	\$ 100,000				
Strawberry Point	S2015-0213	1920753 01	WWTP Disinfection and Ammonia Removal	2016	II	250	2	L			11/17/17	\$ 426,000	\$ 322,000
De Soto	S2014-0066	1920759 G1	Wastewater Treatment Facility Improvements	2016	II	232	2	L			9/1/17	\$ 1,102,000	\$ 1,102,000
De Soto	S2014-0066	1920759 R1	Wastewater Treatment Facility Improvements	2016	II	232	2	L			9/1/17	\$ 1,967,000	\$ 1,967,000
Grinnell	S2014-0189	1920762 01	Wastewater treatment facility improvements	2016	II	222	2	L			4/13/18	\$ 10,403,000	\$ 14,300,000
Sanborn	S2012-0256	1920752 01	Improvements to Wastewater treatment facility as a result of a new NPDES permit and increase loading from and industrial facility	2016	II	167	2	L			12/7/18	\$ 9,294,000	\$ 9,000,000
Postville	S2015-0412	1920756 01	Sanitary Sewer Rehabilitation Phase II	2016	IIIA	155	2	L			9/7/2018	\$ 1,015,000	\$ 489,000
Harris	S2015-0358	1920757 G1/1920757 02	Sanitary Sewer Rehabilitation	2016	IIIA	145	2	R	\$ 582,685				
Keota	S2015-0069	1920761 01	Construction of Submerged Attached Growth Reactors and UV system	2016	II	142	2	L			9/22/17	\$ 3,127,338	\$ 3,128,000
Sabula	S2015-0208	1920749 01	Collection System Improvements	2016	IIIA	157	1	L			1/5/18	\$ 389,940	\$ 351,000
Wastewater Reclamation Authority	S2015-0261	1920750 02 (Phase 27, Segment 1-8)	Eastside Interceptor	2016	IVB	135	1	L			12/15/17	\$ 28,340,000	\$ 38,000,000
Belle Plaine	S2012-0141	1920744 01	Wastewater Disposal System Improvements	2015	II,IIIA	259	4	L			12/22/17	\$ 2,448,180	\$ 3,236,000

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Keystone	S2014-0164	1920743 01	WWTF Upgrade	2015	II	247	4	L			10/13/17	\$ 3,239,919	\$ 2,303,000
Keokuk	S2015-0088	1920732 01	Sewer Rehabilitation - Phase 1	2015	IIIA	237	4	P	\$ 1,484,700				
Pleasantville	S2013-0174	1920737 01	WWTP Improvements	2015	II	229	4	L			7/7/2017	\$ 4,120,500	\$ 4,544,000
Readlyn	S2009-0030	1920736 G1	WWTF Improvements	2015	II	207	4	L			10/6/17	\$ 1,100,000	\$ 868,000
Ames	S2013-0327	1920741 01	Sanitary Sewer Rehabilitation	2015	IIIA	160	4	L			10/19/18	\$ 5,700,000	\$ 5,700,000
Granville	S2015-0163	1920738 01	2015 Sanitary Sewer project	2015	IIIA	152	4	L			10/20/17	\$ 696,968	\$ 448,000
Hospers		PD-CW-15-17	Wastewater treatment plant expansion	2015	II	P&D	3	R	\$ 277,000				
Fort Dodge	S2015-0080	1920728 02	Sanitary Sewer Rehabilitation	2015	IIIA, IIIB	195	3	L			7/28/17	\$ 10,900,000	\$ 10,900,000
New Hampton	S2014-0034	1920721 01	Wastewater treatment plant improvements	2015	II	224	2	R	\$ 2,095,750				
Deloit	S2013-0234	1920716 01	Lagoon Rehabilitation	2015	I	147	2	L		30%	9/30/16	\$ 496,634	\$ 516,000
Blencoe	S2014-0409	1920720 01	Main Lift Station Improvements	2015	IIIB	142	2	L			10/12/18	\$ 179,694	\$ 236,000
Wastewater Reclamation Authority (supplemental)	S2009-0219	1920457 05 (Phase 17, multiple phases)	New Main Outfall, supplemental loan to finalize costs	2015	IVB	160	1	R	\$ 3,000,000				
Wastewater Reclamation Authority (supplemental)	S2009-0219	1920499 02 (Phase 17, Segment 7)	New Main Outfall, Phase 17 Segment 7 final costs	2015	IVB	160	1	R	\$ 10,400,000				
Chariton	S2014-0106A	PD-CW-14-36	Increase capacity of 12th St Lift Station and replace NW Lift Station with new structures and equipment.	2014	IVB	P&D	4	R	\$ 137,900				
Coralville		PD-CW-14-31	Replace manholes, reconstruct sewer lines at Oakdale trunk sewer and replace lift station and force main for Muddy Creek	2014	IIIB	P&D	3	R	\$ 270,263				
Miles	S2013-0064	1920688 01	Construction of controlled discharge lagoon	2014	I	227	3	P	\$ 1,932,000				
Ames	S2013-0326	1920686 01	WPCF Biosolids Storage Tank	2014	II	180	3	R	\$ 1,885,400				
Dyersville	S2013-0342	1920690 01	SE Lift Station & Collection System Improvements	2014	IVB	127	3	P	\$ 1,476,620				
Martensdale	S2013-0292	1920682 01	Sewer rehabilitation	2014	IIIB	150	2	P	\$ 833,800				
Patterson	S2011-0078	1920659 01	Upgrade pump station capacity, reduce inflow/infiltration, install new force main with goal of reducing sewer backups	2013	IIIB	165	3	R	\$ 54,540				
Marengo	S2013-0052	1920661 01	Infiltration/inflow correction to address permit violations at treatment facility	2013	IIIA	162	3	R	\$ 883,000				
Mt Pleasant	S2012-0407	1920665 01	Replacement of remaining portions of Snipe Run Interceptor to transfer flows to new wastewater treatment facility	2013	IIIB	125	3	L			8/25/2017	\$ 1,600,000	\$ 1,600,000

Project Name	Project Number	CWSRF No.	Project Description	IUP Yr	Needs Category	Priority Points	Quarter	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
Dakota City		PD-CW-13-15	Infiltration/inflow correction through sewer relining	2013	IIIA	P&D	2	R	\$ 85,000				
Hamburg		PD-CW-12-29		2012	II	P&D	4	R	\$ 100,000				
Calamus	S2012-0126	1920628 01	WWTP Upgrades 2011-add 3rd lagoon cell	2012	I	149	4	L		30%	12/23/16	\$ 1,360,000	\$ 1,969,000
Clinton (Phase II, Part 2)	S2005-0016	1920629 01	US 30/67 and Camanche Avenue (Reconstruction & Sewer Separation)	2012	V	144	4	R	\$ 3,535,000				
Elkhart	S2012-0137	1920634 01	Inflow and infiltration correction	2012	IIIA	129	4	P	\$ 609,030				
Nemaha		PD-CW-12-04		2012	I,IIIB	P&D	2	R	\$ 75,000				
La Porte City	S2009-0187	1920620 01	Wastewater treatment plant improvements	2012	I,II	220	2	P	\$ 917,822				
North English		PD-CW-11-36		2012	II,IIIA,IIIB	P&D	1	R	\$ 140,000				
Dubuque (Revised Upper Bee Branch-Storm Water Revenue)	N/A	GNS10-5 (2)	Stream daylighting	2011	VII-K	162	4	L			4/12/2019	\$ 7,716,000	\$ 16,382,000
Wastewater Reclamation Authority	S2010-0310	1920593 03 (Phase 19 Seg 1-4)	Interceptor sewer to convey wastewater from Bondurant to the Wastewater Reclamation Facility	2011	IVB	150	2	R	\$ 16,545,820				
Libertyville		PD-CW-10-51		2011	I,IIIA,IIIB, VI	P&D	1	R	\$ 95,000				
Spencer	S2010-0111	1920528 01	Combined sewer separation	2011	V	185	1	R	\$ 2,300,000				
Brighton	S2009-0288	1920515 01	Sewer rehabilitation, wastewater treatment plant upgrade	2011	II,IIIB	140	1	R	\$ 2,675,000				
Bennett	S2010-0120	1920529 01	Sewer rehabilitation, pump station upgrades	2011	IIIA	137	1	R	\$ 1,971,000				
Coralville	N/A	GNS10-4	Green infrastructure practices at the Iowa River Landing	2010	VIIK	120	4	P	\$ 2,950,000	30%			
Wheatland		PD-CW-10-10		2010	IIIA, IIIB,V	P&D	3	R	\$ 67,000				
Mingo	S2008-0304	1920510 R1	Lagoon expansion	2010	I	172	3	R	\$ 1,365,000				
									\$ 596,227,823			\$ 499,598,326	\$ 491,111,825
<b>Project Status</b>		<b>Needs Categories</b>											
		I	Secondary Treatment										
Dropped -- D		II	Treatment more stringent than secondary										
Ready for Loan-- R		IIIA	Infiltration/inflow rehabilitation										
Loan Signed -- L		IIIB	Major sewer system rehabilitation										
Planning Stage -- P		IVA	New collectors and appurtenances										
		IVB	New interceptors and appurtenances										
Green Projects		V	Correction of combined sewers										
Add Subs		VI	Stormwater management programs										
		VII	Non-point source control projects; subcategories below:										
			VIIA	raI cropland sources									
			VII B	himal sources									
			VII C	Silviculture									
			VII D	rban sources									
			VII E	rotection (unknown sources)									
			VII F	Marinas									
			VII G	ource extraction									

Project Name	Project Number	CWSRF No.	Project Description	IUP Yr	Needs Category	Priority Points	Quarter	Project Status	Current Requests	Loan Forgiveness	Loan Signed	Original Request	Loan Amount
				VIII	Brownfields								
				VIII	Storage tanks								
				VIIJ	Landfills								
				VIIK	Stormwater modification								
				XII	Sanitized septic systems								



# INVESTING IN IOWA'S WATER

## FY 2020 INTENDED USE PLANS

Clean Water State Revolving Fund  
Drinking Water State Revolving Fund



Approved by the Environmental Protection Commission on June 18, 2019



**FY 2020 INTENDED USE PLANS**  
**Clean Water State Revolving Fund**  
**Drinking Water State Revolving Fund**

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The Intended Use Plans (IUPs) following this introduction provide a roadmap to the policies and procedures of the SRF programs, along with the lists of projects and activities to be funded. The IUPs outline the proposed management of the Clean Water SRF and the Drinking Water SRF during State Fiscal Year 2020 (July 1, 2019 – June 30, 2020). The IUPs are developed and updated quarterly, in June, September, December, and March or more often as needed. With the SFY 2020 Intended Use Plan and future program plans, Iowa's SRF will continue to help Iowans protect public health and the environment through investing in Iowa's water.

***Since 1988, the Iowa State Revolving Fund (SRF) has remained a reliable funding source for Iowans in their pursuit to improve water quality and protect public health. In fact, Iowa's SRF has been recognized for offering some of the most innovative and far-reaching financing programs in the United States. Here are some of the highlights:***

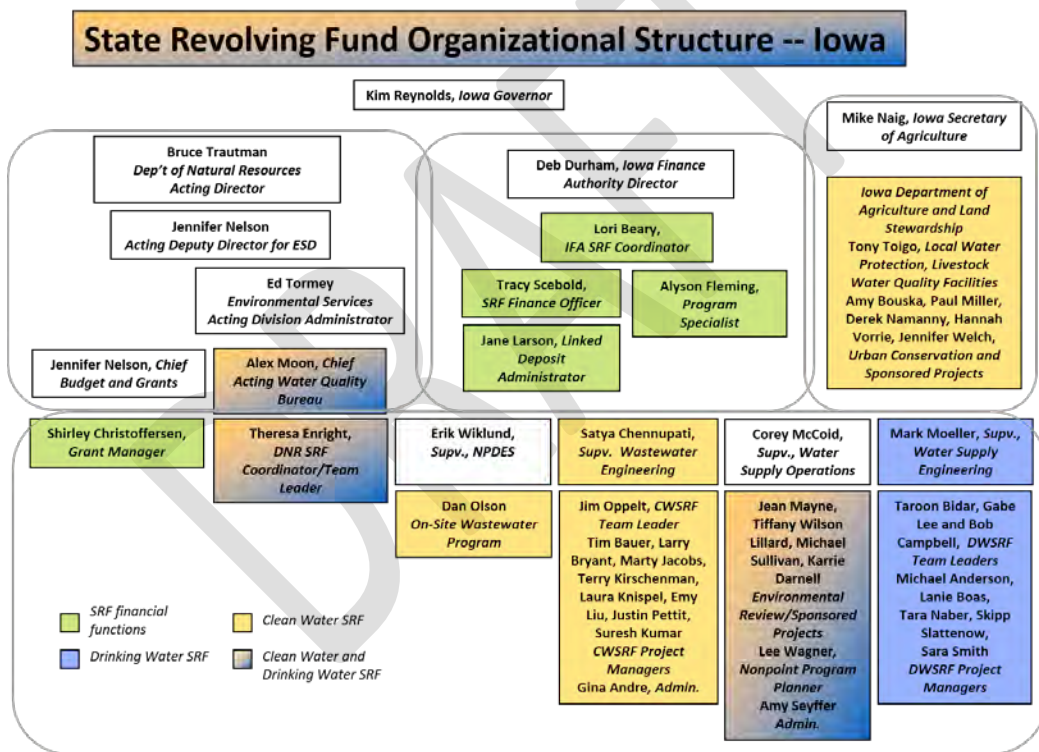
- ✓ In the last 30 years, Iowa's SRF has provided more than **\$3.5 billion** in loans for water and wastewater infrastructure, agricultural best management practices, and other water quality projects.
- ✓ Cities, counties, rural water systems, sanitary districts, farmers, livestock producers, homeowners, watershed organizations and others across the state utilize the existing SRF programs. Many borrowers come back to the SRF multiple times to finance their ongoing capital improvement projects.
- ✓ Iowa's SRF listens to stakeholders to create programs and financing tools that meet their needs. For example, program innovations such as sponsored projects and loans to farmers and livestock producers are providing effective financing tools for voluntary practices to address nonpoint source pollution control.
- ✓ SRF loans can be used as stand-alone financing or in combination with a wide variety of grants, including other federal water and wastewater assistance programs, state and federal agricultural cost-share, and local sources, along with private investment.
- ✓ Iowa's SRF is based on federal legislation that created the programs as revolving loan funds to provide a dependable, ongoing source of financing. Several sources of money are used to make loans, including federal capitalization grants, bonds, and loan repayments with interest. No state general funds are provided.
- ✓ Iowa's SRF programs are rated highly in financial markets, giving the programs strong leveraging capacity to keep up with demand for loans.
- ✓ The SRF programs accept applications throughout the year to ensure funding is available when projects are ready to proceed. All eligible projects can be funded.



✓ The SRF programs accept applications throughout the year to ensure funding is available when projects are ready to proceed. All eligible projects can be funded.

✓ Transparency and accountability are commitments the Iowa SRF staff have made to stakeholders. All program plans are issued for public review and comment, with approval quarterly by the Iowa Environmental Protection Commission. Annual reports and program audits show program performance. Surveys and questionnaires are used to gauge customer satisfaction and identify and solve problems.

The unique partnership between the Iowa Department of Natural Resources, the Iowa Finance Authority, and the Iowa Department of Agriculture and Land Stewardship is the foundation for the success of the SRF programs. These agencies work together to deliver streamlined programs and good customer service.



Iowa's SRF also relies on partnerships with Soil and Water Conservation Districts, county environmental health agencies, watershed and land trust organizations, and lending institutions across the state to implement program and financial goals.

The anticipated use of the SRF programs is steady and even increasing. Several factors will create need for investment in the years to come: higher regulatory standards, aging infrastructure, increased emphasis on environmental protection, and growth and expansion. In addition, the impacts to drinking water and wastewater infrastructure from extensive flooding and other natural disasters are currently being assessed. In May of 2019, a Memorandum of Understanding (MOU) was signed regarding coordination between EPA and FEMA. The MOU established a framework for the EPA funded State Revolving Fund (SRF) programs to assist and collaborate with FEMA disaster assistance grant programs.

The SRF is not a very flexible tool for emergency response, but the Iowa SRF team is working with communities on a case-by-case basis to provide assistance addressing public health threats related to drinking water and wastewater. Some of the ways the SRF can help include:

- Restructure existing SRF loans. Communities with current financial difficulties may request an extension on the loan term or to delay principal payments. Under certain circumstances, it may be possible to reduce or eliminate interest and fee payments for a period of time.
- Use SRF loans as match for FEMA grants. FEMA funds will generally pay for 75% for the replacement costs for public water and wastewater systems. The SRF can be used for the required 25% match.
- Use SRF funds as short-term loans to be repaid with FEMA grants. There may be times when a public facility has been approved for a FEMA grant but there is a delay in receiving the funds. In those situations, a SRF loan could be used to finance the repairs and then be repaid with FEMA money. When all other requirements are met, loans may be made and then shown on the next quarterly IUP update.
- SRF loans can be used to pay for emergency repairs. The SRF team will work with communities to expedite the normal SRF procedures to the extent possible. While the required environmental review process cannot be waived, the SRF team will use categorical exclusions wherever possible to shorten the review period. When all other requirements are met, emergency loans may be made and then shown on the next quarterly IUP update.

The attached Intended Use Plans (IUP) outline goals and strategies to be used in managing the Iowa SRF programs during fiscal year 2020. The IUPs will continue to be amended quarterly, with projects added and funding amounts adjusted as needed. While the plans of action outlined in this SFY 2020 IUPs may be amended in subsequent quarters, they are intended to lay out the general direction and goals of the Clean Water and Drinking Water SRF programs.

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## FY 2020 INTENDED USE PLANS

### Clean Water State Revolving Fund

#### I. STATE FISCAL YEAR 2020 PLAN OF ACTION

The plan is based on anticipated use of new and revolved funds available in the CWSRF for funding water quality protection needs, including both publicly owned wastewater infrastructure and nonpoint source water protection projects.

The CWSRF loan program consists of three main program areas:

- The purchase of debt obligations for wastewater and some storm water projects is provided through the CWSRF to publicly owned facilities
- Direct loans, loan participation and linked deposit financing approaches address nonpoint source programs
- Water Resource Restoration Sponsored Projects address nonpoint source problems via interest rate reductions on wastewater loans

The SFY 2020 Plan of Action covers the following areas:

- CWSRF goals and objectives
- Current and projected financial capacity of the CWSRF
- Financial management strategies
- Plan for the SFY 2020 Project Priority List
- Plan for nonpoint source set-asides
- Plan for use of administrative accounts

#### **CWSRF Goals and Objectives**

The primary long-term goal of the Iowa CWSRF is to protect the environment and public health and welfare through a perpetual financial assistance program. While there have been changes to the CWSRF in recent years due to federal legislation, no major program updates are anticipated in SFY 2020.

The SFY 2020 short-term goals and objectives are as follows:

- Goal: Commit loan funds to as many recipients as possible in accordance with the state priority rating system, the IUP, staff resources, and available funding, in order to assist in the construction of projects with the highest water quality impacts. *Objective: During SFY 2020, quarterly updates to the IUP will be prepared to add projects and update program financial information. Sponsored project applications will*

*be taken and added to the IUP twice per year. Projects approved under the nonpoint source set-aside programs will be funded on a continuous basis.*

- Goal: Require applicants to engage a registered Municipal Advisor (MA). *Objective: During SFY 2020, all applicants submitting an Intended Use Plan application must demonstrate that they have hired an MA to assist with cash flows, rate setting, debt service coverage, and other financial aspects of their wastewater utility.*
- Goal: Implement the “Use of American Iron and Steel (AIS)” requirements enacted by Congress on January 17, 2014. *Objective: During SFY 2020, SRF staff will help applicants determine eligibility for the exemptions and waivers provided for in the Act and EPA guidance. SRF staff will provide information to those applicants required to comply on necessary documentation and inspection procedures. SRF will engage DNR Field Office staff to conduct site visits and provide technical assistance.*
- Goal: Fund green projects to meet the requirements of the Green Project Reserve. *Objective: During SFY 2020, the Iowa SRF plans to fund green projects as required in the FFY 2018 and FFY 2019 Capitalization Grants. Iowa has already complied with the GPR requirements of previous Cap Grants.*
- Goal: Develop plans for allocating loan forgiveness required in FFY 2018 and 2019 Cap Grants. *Objective: During SFY 2020, SRF staff plans to approve plans and specifications and execute loans or loan amendments with loan forgiveness for the amounts required in the FFY 2017, 2018 and 2019 Cap Grants. Iowa has complied with the additional subsidization requirements for all previous Cap Grants.*
- Goal: Comply with EPA guidance on reporting under the Federal Funding Accountability and Transparency Act (FFATA). *Objective: In the Annual Report, SRF staff will list loans that met the several requirements of FFATA for open Capitalization Grants. Grants may not be closed out until equivalency amounts can be reported. Loans reported for FFATA will meet equivalency requirements for the following:*
  - *Section 602(b) (14) of the Clean Water Act: “A contract to be carried out using funds directly made available by a Capitalization Grant...for program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping, or architectural related services shall be negotiated in the same manner as a contract for architectural and engineering services is negotiated under Chapter 11 of title 40, United States Code....”*
  - *Federal socioeconomic cross-cutters*
  - *Federal environmental cross-cutters*
  - *EPA signage guidance*
  - *Single audit requirements*
- Goal: Comply with EPA guidance on cost and effectiveness requirements under Section 602(b)(13) of the Clean Water Act, which states: “Beginning in (federal) fiscal year 2016, the State will require as a condition of providing assistance...that the recipient of such assistance certify...that the recipient – A) has studied and evaluated the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project...; and B) has selected, to the maximum extent practicable, a project or activity that maximizes the potential for efficient water use, reuse, recapture, and conservation, and energy conservation, taking into account – i) the cost of constructing the project

or activity; ii) the cost of operating the project or activity over the life of the project or activity; and iii) the cost of replacing the project or activity.” *Objective: During SFY 2020 CWSRF will require applicants whose project requests were placed on the IUP after October 1, 2015 to submit a self-certification form indicating compliance with this requirement.*

- Goal: Promote and identify sustainable practices in projects proposed for funding. *Objective: During SFY 2020 SRF staff will provide information on the EPA’s Sustainability Policy to applicants and include sustainability features in project descriptions.*
- Goal: Continue to implement the Water Resource Restoration Sponsor Program authorized in Iowa Code 384.84. *Objective: During SFY 2020, SRF staff will receive applications twice per year for Sponsored Project funding. Application deadlines will be in September and March. In conjunction with watershed coordinators, Iowa Department of Agriculture and Land Stewardship urban conservationists, and others, SRF staff will evaluate the applications and prepare a list of proposed projects for the IUP.*
- Goal: Comply with the EPA Signage Guidance. *Objective: During SFY 2020 SRF staff and recipients will notify the public in the most effective ways possible about assistance agreements and benefits of the CWSRF program in order to enhance public awareness of EPA assistance agreements nationwide. The Iowa SRF program sends out press releases listing all SRF loans that have closed and borrower contact information.*

Additional long-term goals include:

- Goal: Work with other state and federal agencies to coordinate water quality funding. *Objective: During SFY 2020, SRF staff will meet regularly with staff from the Community Development Block Grant program, and USDA Rural Development. SRF staff will also coordinate funding with new state Water Quality Initiative grants for nonpoint source projects.*
- Goal: Apply program requirements that are simple and understandable and do not add unnecessary burdens to applicants or recipients. *Objectives: During SFY 2020 SRF staff will continue to assist applicants with completing the federal cross-cutting requirements for environmental and historical review. Staff will not be responsible for Davis-Bacon compliance but will advise borrowers as needed. Borrowers will be responsible for compliance and may hire outside consultants to assist.*
- Goal: Continue the option of extended financing terms for CWSRF infrastructure projects. *Objective: During SFY 2020 this option will be offered to current and new projects on the project priority list. Applicants seeking extended financing must complete a worksheet outlining the anticipated life of the project components, which can be averaged to determine the extended term.*
- Goal: Maintain mechanisms for funding the on-going administration of the program if federal funding is reduced or eliminated. *Objective: During SFY 2020 initiation and servicing fees will be collected on CWSRF loans for deposit to administrative accounts. SRF staff will develop short and long-term plans for administrative budgets.*

- Goal: Manage the CWSRF to maximize its use and impact through sound financial management. *Objective: During SFY 2020 SRF staff and financial advisors will continue to conduct financial analysis and develop innovative approaches to financial management.*
- Goal: Implement programs that effectively address water quality needs and target appropriate audiences. *Objective: During SFY 2020 SRF staff will continue to educate users and potential users about the program offerings through presentations, displays, program materials, and the IowaSRF.com website.*
- Goal: Update the CWSRF Operating Agreement. *Objective: In the future, SRF staff will work with EPA Region 7 to update the Clean Water SRF Operating Agreement between DNR and EPA. The agreement has not been updated since 2007 [and the EPA is evaluating the future use of Operating Agreements in Region 7 states.](#)*

#### **Current and Projected Financial Capacity of the CWSRF**

Appendix A, the Estimated Sources and Uses table, shows that funds are available to fund current requests as of April 2019. The Iowa CWSRF program uses its equity fund to originate loans. When a sufficient number of loans have been made, the SRF program issues bonds, backed by those CWSRF loans, and uses the bond proceeds to replenish the equity fund. Bonds were issued in SFY 2019 and included the state match for the estimated FFY 2019 Capitalization Grant.

The leveraging capacity of the CWSRF is robust due to the maturity of the fund and the current loan portfolio. SRF staff has analyzed the future financial capacity of the CWSRF in light of the discussion over water quality standards and other future wastewater needs. Assuming continued Cap Grants, 10% loan forgiveness and the same interest rates, it is projected that the CWSRF could loan an average of \$290 million per year over the next 10 years, or a total of \$2.9 billion. If we assume no additional Cap Grants but keep the same interest rates, the CWSRF could loan an average of \$231 million per year over the next 10 years. Those amounts would increase if we were to increase the interest rate.

#### **Financial Management Strategies**

The CWSRF Project Priority List (attached) show total loan requests for wastewater projects. Because many of these projects are in the planning phase, they are not expected to sign a binding loan commitment during this fiscal year. The projected timing and demand for loan draws is reflected in the sources and uses table (Appendix A). Other uses for CWSRF funds in SFY 2020 include \$22.8 million for nonpoint source set-asides.

The cash draw procedure used is the direct loan method. State match is fully disbursed prior to drawing EPA Capitalization Grant funds. The EPA Capitalization Grant funds will be drawn at a 100% proportionality ratio. Iowa's bonds are cross-collateralized across both the Clean Water and Drinking Water SRF accounts.

#### **SFY 2020 Project Priority List**

The management of the CWSRF program includes a priority list of projects for loan assistance, which has been developed according to DNR rules 567 IAC 92 (455B).

With the available CWSRF funds, this IUP provides a projection of loan funding assistance for applications in priority order determined by point source rating criteria defined in 567 IAC 91 (455B). This priority list will be amended on a quarterly basis during SFY 2020. Chart 1 (attached) constitutes the project priority list.

Due to the project workload and for planning purposes, the CWSRF staff may evaluate projects that have been

on the IUP list for more than three years. A notification will be sent to the applicants that their project may be dropped if there is no progress in the six months following the notice. If a project is dropped, the applicant may reapply when the project is ready to move ahead.

For program planning purposes, the fundable projects are further identified as “R – ready for loan” (indicating that the construction permit and environmental review have been completed), and “P – in planning.”

The following categories of projects will be included for funding during SFY 2020 and are included on Chart 1:

**Unfunded Prior Years’ Section 212 Projects:** These are loan requests remaining on the project priority list from previous years’ IUPs. It is Iowa’s intention to make CWSRF loans to these projects during SFY 2020 if they are ready for a binding loan commitment.

**Segments of Previously Funded Section 212 Projects.** State rules provide that subsequent segments of a project, which has previously received funding priority or assistance, be placed on the project priority list ahead of new projects. Segmented projects will be added to the SFY 2020 project priority list as received.

**New Section 212 Projects.** New applications for assistance during SFY 2020 will be added to the project priority list. Applications will be accepted on a continuous basis during SFY 2020 with quarterly updates completed as needed.

**Supplemental Financing.** Supplemental financing for projects listed in previously approved IUPs are added to the IUP as they are requested unless the additional funds will be used for improvements that would significantly change the scope of the project. Additional environmental review may be required. Supplemental loans will not be provided for changes that are ineligible for funding.

**Planning and Design Loans.** Planning and design loans are provided at 0% interest for up to three years to cover the costs of preparing facility plans and project specifications. The loans will be rolled into CWSRF construction loans or repaid by another source of permanent financing.

#### ***Water Resource Restoration Sponsored Project***

The project category called “water resource restoration” sponsored projects includes locally directed, watershed-based projects that address nonpoint source water quality issues.

Iowa Code chapter 384.84 authorizes these projects to be financed with sewer revenues. On a typical CWSRF loan, the utility borrows principal and repays principal plus interest. On a CWSRF loan with a sponsored project, the utility borrows for both the wastewater improvement project and the sponsored project. The overall interest rate on the total amount of principal borrowed is reduced so that the utility’s ratepayers do not pay any more than they would have for just the wastewater improvements. Instead, two water quality projects are accomplished for the cost of one.

- For loans up to 20 years, the interest rate on the combined infrastructure/sponsored project loan will be reduced to not lower than 0.75%. The equivalent of the amount that would be generated by a 1% interest rate (approximately \$100,000 per \$1 million borrowed) will be available for eligible sponsored project costs. Loans between 20-30 years can also be used but the dollar amount for sponsored projects will also be \$100,000 per \$1 million.

Applications will be taken during SFY 2020 on September 3, 2019 and March 2, 2020.

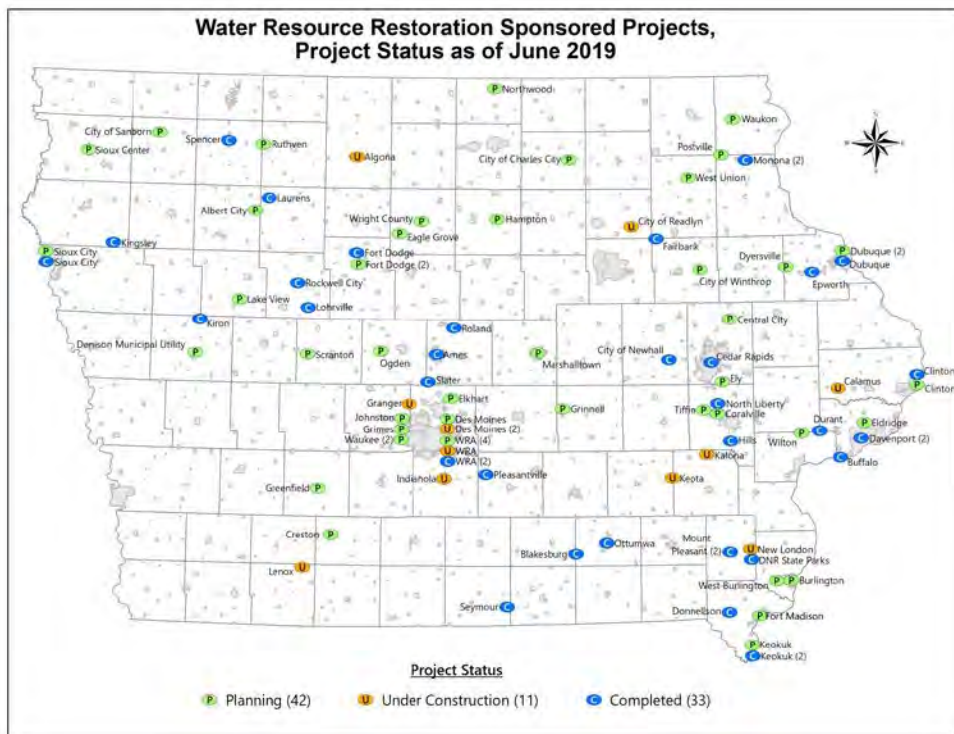


Explanations of eligible applicants and projects, as well as specific application requirements, are outlined in the SFY 2020 Sponsored Project Application Packet, available online at: [http://www.iowasrf.com/about\\_srf/sponsored\\_projects\\_home\\_page.cfm](http://www.iowasrf.com/about_srf/sponsored_projects_home_page.cfm)

The applications proposed for funding in SFY 2020 are listed in Appendix D.

- The amount set aside for interest rate reductions is \$10 million (on up to \$100 million worth of future CWSRF infrastructure loans). DNR reserves the right to cap the dollar amount of a single project to a percentage of the total allocated.

The map below shows the project locations for approved sponsored projects through the end of SFY 2019.



**Plan for Nonpoint Source Set-Asides**

Iowa authorizing legislation and state administrative rules allow the use of CWSRF funds for nonpoint source pollution control projects. Four set-asides for nonpoint source program assistance have been established which target areas of need allowed under federal guidance and identified in the state nonpoint source water quality management plan:

- The On-Site Wastewater Systems Assistance Program (OSWAP), providing loans to homeowners to replace inadequate septic systems. New systems are certified by county sanitarians and loans are made through participating lenders through a linked deposit arrangement.
- The Local Water Protection (LWP) Program, addressing soil, sediment, and nutrient control practices on agricultural land. DNR contracts with the Iowa Department of Agriculture and Land Stewardship, which operates the program through local Soil and Water Conservation Districts. Loans are made through participating lenders through a linked deposit arrangement.
- The Livestock Water Quality Facilities (LWQ) Program, assisting livestock producers with manure management plans, structures, and equipment. Facilities with fewer than 1,000 animal unit capacity are eligible. DNR contracts with the Iowa Department of Agriculture and Land Stewardship, which operates the program through local Soil and Water Conservation Districts. Loans are made through participating lenders through a linked deposit arrangement.
- The General Nonpoint Source (GNS) Program, for a wide variety of other water quality protection efforts. Projects include habitat and wetland restoration, landfill closure, lake restoration, and watershed planning. Funding for Storm Water Best Management Practices loans is also included in this set-aside amount. Projects that involve purchase of land require separate approval by the EPC. These projects as well as new legislation regarding GNS uses, are listed in Appendix E. Only GNS projects that receive a direct loan are listed on the project priority list (Chart 1).

The table below outlines the current and proposed set-aside amounts planned for the four programs. These set-aside amounts may be amended based on need and the financial capacity of the CWSRF.

Program	Proposed SFY 2020 Set-Aside Amount
Onsite Wastewater Assistance Program (OSWAP)	\$1.8 million
Local Water Protection Program (LWPP)	\$5.0 million
Livestock Water Quality Facilities Program (LWQ)	\$6.0 million
General Nonpoint Source Program (GNS)	\$10.0 million
<b>TOTAL</b>	<b>\$22.8 million</b>

**Plan for Use of Administrative Accounts**

There are three distinct funding sources for CWSRF administrative expenses:

- The CWSRF administrative set-aside. Iowa intends to take or reserve 4% of the federal Capitalization Grant funds for program administration. The Iowa SRF program did take the administrative set-aside of \$2,121,600 from the ARRA Cap Grant in the 2018 Cap Grant application. Any unused administration commitments from ARRA and other Capitalization Grants are reserved for use in future years as

necessary should Capitalization Grants be reduced, or actual costs increase.

- **Loan initiation fees.** A 0.5% loan origination fee will be charged on new CWSRF loans. The maximum amount to be paid will be \$100,000. Under EPA rules, because Iowa's origination fees are financed through the loans, the proceeds are considered program income. Program income can only be used for the purposes of administering the CWSRF program or for making new loans.
- **Loan servicing fees.** A fee of 0.25% on principal is charged on CWSRF loans. Under EPA rules, only servicing fees charged on loans made above and beyond the amount of the Capitalization Grant and fees collected after the Capitalization Grant under which the loan was made has been closed are considered non-program income. Non-program income can be used to administer the program or for other water quality purposes. The uses of non-program income are discussed below.

**Program Income.** It is estimated that program income collected in SFY 2020 will be approximately \$1 million dollars and will be used for program administration. Program income is replenished throughout the fiscal year by funds received from loan initiation fees as described above.

**Non-Program Income.** There is approximately \$9.4 million available in funds considered non-program income.

**Planned Expenses.** CWSRF program expenses are estimated to be approximately \$3 million this fiscal year. This includes the work of wastewater engineering section project managers, specialists in environmental review, nonpoint source program administrators, financial officers, loan coordinators, and program managers. It also covers expenses for financial and legal advisors. These program expenses will first be paid out of program income and then non-program income once program income has been fully expended.

DNR intends to use a portion of non-program funds during SFY 2020 to support staffing to the Field Services Bureau for wastewater compliance activities including inspections, investigations and technical assistance and to support staffing in the Water Quality Bureau for construction permitting, National Pollution Discharge Elimination System permitting, and other programmatic staffing needs.

## II. INFORMATION ON THE CWSRF ACTIVITIES TO BE SUPPORTED

### **Allocation of Funds**

Allocation of funds to eligible projects was based on a four-step process:

1. The amount of financial assistance needed for each application was estimated
2. The sources and allowable uses of all CWSRF funds were identified
3. The CWSRF funds were allocated among the projects, consistent with the amount available and the financial assistance needed
4. A designated amount was selected as reasonable and manageable for each set-aside

Information pertinent to each CWSRF project is contained in Chart 1, pursuant to Section 606(c) (3) of the Clean Water Act.

### **Sources and Uses of Available CWSRF Funds**

Appendix A to the Intended Use Plan illustrates potential sources and uses of funds in the CWSRF for SFY 2020. As shown, all pending loan requests and program administration needs can be funded. Projects will draw on their funding at different intervals based on their construction cycles. These differences are used to estimate cash needs throughout the year. Appendix A will be updated quarterly as needed to provide an ongoing view of

the financial plan for meeting loan requests.

**Section 212 Projects Program Policies**

**Project Scope.** The scope of the project must be outlined on the Intended Use Plan application and in the facility plan. Changes to the scope are allowed prior to loan closing. Significant changes in scope may cause delays if additional work is required by the project manager or environmental review specialist. Once a loan is signed, only minor changes to the scope will be allowed and only if they do not require additional technical or environmental review.

**Loan Interest Rates.** The interest rates for construction loans made from the CWSRF are as follows:

Loan Term	Applicant Type	Interest Rate	Servicing Fee	Total	Additional Information
Standard (up to 20 years)	All	1.75%	0.25%	2.00%	
Extended (21 to 30 years based on useful life)	Disadvantaged	1.75%	0.25%	2.00%	Communities must be determined to be disadvantaged based on criteria in Iowa Code section 455B.199B, Disadvantaged Communities Variance, as amended by Senate File 407 on April 28, 2011. These criteria include income and unemployment data. SRF staff will also consider population trends, providing 1 point for communities with projected increases or decreases in population. Population trends are also reviewed as part of the construction permitting process as required in Iowa Administrative Code 567 Chapter 64.2(9).
Extended (21 to 30 years based on useful life)	Non-Disadvantaged	2.75%	0.25%	3.00%	

Interest rate for CWSRF planning and design loans will be 0% for up to three years.

**Loan Fees.** A 0.5% origination fee is charged on the full loan amount for new CWSRF construction loans, with a maximum amount of \$100,000. No origination fees will be charged on planning and design loans. A .25% servicing fee will be charged on construction loans. Payment of the loan servicing fee is semi-annual with interest payments for all new SRF loans. Loan servicing fees are only charged on the principal amount disbursed during construction (not the entire original loan amount).

**Financing Term.** The financing term will be up to 30 years. Current and new projects on the project priority list may request an extended term. The length of the term will be based on calculation of the average useful life of

the entire project, to be determined by the applicant's consulting engineer and approved by DNR.

**Maximum Financing.** There is no maximum financing amount.

**Project Readiness.** Applicants cannot be offered assistance until they meet program requirements.

**Funding Limitations.** Pending loans identified in this IUP do not exceed funds obtainable for the CWSRF program.

***Plan for Efficient and Timely Use of CWSRF Funds***

The State of Iowa's Clean Water State SRF uses federal Capitalization Grant funds as expeditiously as possible. Iowa has been able to use its federal Capitalization Grant funds in a timely way due to a robust and sustained demand for loans. A number of program features have spurred the growth in loan demand. These include:

- Improvements and streamlining in the wastewater construction permitting process, which reduced timelines for project review and approval
- Allow applicants to pursue phased approach for projects to enable individual phased projects proceed timely to construction instead of waiting on approval on a large project
- Planning and design loans at 0% interest for three years to provide upfront capital to get projects started and ready for construction and loan closing
- Year-round application process with quarterly updates to the Intended Use Plan, which keeps projects in the loan pipeline on a continual basis
- Expansion of nonpoint source and green infrastructure programs to include loans for farmers, livestock producers, watershed organizations, and others
- Extended term financing, based on project useful life, which allows more utilities to benefit from the CWSRF
- Environmental review services to complete assessments of impacts to natural and cultural resources, reducing costs and barriers to participating in the loan program
- Focus on marketing, customer and consultant education, and coordination with other funders

Financial management also contributes to the timely use of federal funds. The Iowa CWSRF program uses its Equity Fund to originate new loans. This fund consists of principal and interest repayments. When additional funds are needed, the SRF program issues bonds, backed by those CWSRF loans, and uses the bond proceeds to replenish the equity fund.

Iowa's SRF program issues bonds annually or as needed. These bond issues include the state match for the next federal Capitalization Grants. After the bonds are issued, the state match is spent first so the Cap Grant can be drawn down at 100% when it is received. Due to equivalency guidance from the U.S. EPA, Cap Grant dollars can be directed on a first-come, first-served-out basis. That allows the Cap Grant to be drawn down more quickly. Equivalency projects are chosen to meet the full range of SRF requirements. Loan disbursements are made weekly. Iowa's CWSRF disbursements averaged \$11 million per month over the last 5 years. During the first 10 months of SFY 2019, the monthly disbursement averaged almost \$18 million.

With a return of \$3.91 for every dollar of federal investment (compared to the national average of \$2.79), Iowa's CWSRF is an efficient and effective delivery mechanism for water infrastructure funding.

The practices described above are currently working well for Iowa and will be continued through SFY 2020.

**Water Quality Management Planning**

A reserve for water quality management planning as required by Title VI of the Clean Water Act will be set aside from Iowa's Title VI allotments and granted to the state for this purpose separately from the CWSRF. This reserve does not appear in this IUP as it has been already deducted from Iowa's allotment and taken into account in projecting Iowa's available Capitalization Grant.

**SEE Salary Funds Deducted from Cap Grant**

These positions are filled by EPA Region 7 and assigned to the DNR's Wastewater Engineering section to provide technical and administrative assistance to the CWSRF projects and program. The SEE enrollees help provide staffing at Iowa DNR to maintain the CWSRF program and keep up with the increasing CWSRF project technical and administrative work load. Authorized under the Environmental Programs Assistance Act of 1984 (PL 98- 313), the SEE program is intended "to utilize the talents of older Americans in programs authorized by other provisions of law administered by the Administrator in providing technical assistance to Federal, State, and local environmental agencies for projects of pollution prevention, abatement, and control."

**III. ASSURANCES AND SPECIFIC PROPOSALS**

Iowa will provide the necessary assurances and certifications according to the Operating Agreement between the State of Iowa and the U.S. EPA.

**IV. CRITERIA AND METHOD FOR DISTRIBUTION OF FUNDS****Section 212 Infrastructure Projects**

The following approach was used to develop Iowa's proposed distribution of CWSRF funds for Section 212 infrastructure projects: (1) analysis of the priority of communities applying and financial assistance needed; (2) identification of the sources and spending limits of available funds; (3) allocation of funds among projects; (4) development of a payment schedule which will provide for making timely binding commitments to the projects selected for CWSRF assistance; and (5) development of a disbursement schedule to pay the project costs as incurred.

Allocation of Funds Among Projects. All projects listed in the CWSRF Project Priority List (attached) are eligible for assistance and may be funded from the CWSRF subject to available funds.

All projects scheduled for funding with Iowa's CWSRF will be reviewed for consistency with appropriate plans developed under sections' 205(j), 208, 303(e), 319 and 320 of the Clean Water Act, as amended. Evidence of this review and finding of consistency will be documented in each CWSRF project file. Should a project fail to meet this review criterion, it may be bypassed as allowed by State rules. The Project Priority List provides for contingency projects, which may be considered for loan assistance as bypass projects according to state rules without formal amendment of this intended use plan.

Priority of Communities and Financial Assistance Needed. Iowa law provides only for loan assistance. Additional subsidization required by federal Capitalization Grant conditions will be through forgivable loans. The state's CWSRF rules identify the priority rating system used to establish priorities for loan assistance.

**Capitalization Grant Requirements.** The FFY 2016 - 2019 Capitalization Grants include requirements for certain percentages of the funds to be allocated for additional subsidization and/or green projects. The specific projects that have received add subs or been counted for the GPR are listed in Appendix C. Iowa will satisfy the amounts required in the FFY 2018 and 2019 Capitalization Grants. Time limits may be established on loan forgiveness awards.

	Add Subs Rqd.	Add Subs Actual	%	GPR Req'd.	GPR Actual	%
2016	\$ 1,808,300	\$ 1,838,800	102%	\$ 1,808,300	\$ 5,691,797	315%
2017	\$ 1,794,400	\$ 1,794,400	100%	\$ 1,794,400	\$ 21,236,103	1183%
2018	\$ 2,172,300	\$ 1,981,400	91%	\$ 2,172,300		0%
2019	\$ 2,150,500		0%	\$ 2,150,500	\$ 2,150,500	0%

~~Iowa will satisfy the amounts required in the FFY 2018 and 2019 Capitalization Grants.~~

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**Nonpoint Assistance Programs**

Nonpoint source assistance includes set-asides for the Onsite Wastewater Assistance Program (OSWAP), Livestock Water Quality Facilities (LWQ), Local Water Protection (LWP) and General Nonpoint Source (GNS). These funds implement the intent of Iowa statute to use CWSRF funds to improve residential wastewater systems, to assist owners of existing animal feeding operations to meet state and federal requirements, for local water protection projects that will provide water quality improvement or protection and for general nonpoint source projects that will provide water quality improvements or water quality protection. These systems are addressed as a need by Iowa’s State Nonpoint Source Management Plan. Individual loan applicants for all set-aside program operated as linked deposit and loan participation are not identified in this IUP. Only GNS projects with a direct loan will be listed on the project priority list.

**V. METHOD OF AMENDMENT OF THE INTENDED USE PLAN**

This IUP will be followed by the State in administering CWSRF funds in SFY 2020. Federal and state law requires, and Iowa welcomes, opportunity for public participation in the development of the IUP. Any revisions of the goals, policies and method of distribution of funds, must be addressed by a revision of the IUP, including opportunity for public participation. Updates to the IUP to add projects to the priority list, to make program changes, or to adjust dollar amounts in set-asides, will be made quarterly as needed. Minor adjustments in funding schedules, loan amounts and use of bypass provisions including funding of projects on contingency status are allowed by the procedures of this IUP and state rules for administration of the CWSRF without public notification.

**VI. PUBLIC REVIEW AND COMMENT**

A public meeting to allow input to Iowa’s SFY 2020 IUP and Project Priority List was held May 9, 2019, 10:00 a.m., at the Wallace State Office Building, Conference Room 4W, 502 E. 9<sup>th</sup> Street, Des Moines. This meeting was announced in a notice provided to stakeholder organizations representing city officials, consulting engineers, county governments, councils of government, area planning agencies, and other groups which might have an interest. There were no attendees. The public comment period was open until May 16, 2019. There were no written comments.

**VII. PROJECT PRIORITY LIST**

Chart 1, the CWSRF Project Priority List is included in a separate, sortable Excel file.

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**APPENDIX A**

Iowa CWSRF State Fiscal Year 2020 Q1  
 Estimated Funding Sources and Funding Uses  
 As of 4/22/19

Funding Sources

Funds Available in Equity Fund, Bond Proceeds and Program Accounts	\$242,098,000	*
<b>FFY 2019 Capitalization Grant</b>	\$21,505,000	**
<b>State Match Bond Proceeds for FFY 2019/20 Capitalization Grants</b>	\$0	**
Issuance of Leveraged Bonds (Next Bond Issue Expected SFY21)	\$0	
Equity Fund and Program Interest Earnings	\$450,000	
Loan Repayments	\$94,337,000	
<b>Total Funding Sources</b>	<b>\$358,390,000</b>	

Funding Uses

Undisbursed Amounts Committed to Existing Loans (35% disbursement rate)	\$106,081,000
Section 212 Project Requests (FNSI/CX issued; 30% disbursement rate)	\$43,492,000
Section 212 Project Requests (FNSI/CX not issued; 25% disbursement rate)	\$93,125,000
Planning & Design Requests (50% disbursement rate)	\$8,240,000
Non-Point Source Program Assistance	\$22,800,000
Principal Payments on Outstanding Bonds	\$40,650,000
Interest Payments on Outstanding Bonds	\$41,877,000
Program Administration From FFY19 Capitalization Grant	\$717,000
Program Administration From ARRA Capitalization Grant	\$1,408,000
<b>Total Funding Uses</b>	<b>\$358,390,000</b>

\* Funds Available for disbursements as of 4/22/19

\*\* Estimated Only

\*\*\* Loan disbursement rates are estimated based on previous experience with project pace. For projects that currently have not had a Finding of No Significant Impact or Categorical Exclusion issued, it is expected that up to 25% of the total project amounts may be disbursed during SFY 2020 once environmental review is completed, construction permit issued, and binding loan commitment signed. For those projects with FNSI/CX clearance, the disbursement rate is estimated at 30% of the loan request amount.

All amounts are rounded to the nearest \$1,000

**APPENDIX B-1  
PROCEDURES TO DETERMINE SECTION 212 PROJECT PRIORITY LIST**

Project rankings were determined by the following procedures:

Cost eligibility of projects was determined as per 567 IAC 92.7(6) (455B). Applications were evaluated using the priority point system in 567 IAC 91.8(455B).

The final project priority list for a fiscal year's project pool is compiled in the following manner: subsequent segments of projects funded by CWSRF loan programs of previous years will be ranked at the top; projects ranked in the current year application group will then be added.

Projects on the project priority list will be given contingency status should the total amount of needs exceed the year's CWSRF staff resources capability and loan funding or if the projects have not met the fundable criteria described in 567 IAC 92.6(2)(455B). Projects will be funded from the top down in the ranking order of the project priority list. Projects are ranked similarly in the contingency project list. The top project in the contingency list can be moved to the funding list when funds are available or it has met the fundable criteria. Funds can be made available due to a number of reasons including project bypasses, loan application withdrawal of other projects, reduction in loan amount requests, an increase in available funds, or progress in meeting program requirements.

**APPENDIX B-2  
CRITERIA TO DETERMINE PROJECT PRIORITY LIST**

In April 2010 Iowa adopted revised rules for the Clean Water State Revolving Fund (CWSRF). 567 IAC 91 provides the criteria for scoring and ranking CWSRF projects. The new system uses an integrated approach which allows comparison of Section 212 POTW (publicly owned wastewater treatment works) projects as well as nonpoint source pollution control projects. The goal of the new system is gain the highest water quality benefits for the funding available.

Currently Iowa is able to fund all projects that are eligible, but the priority system will be available to use in the case that demand for CWSRF loans exceeds supply of funds.

***Section 212 POTW Projects***

The rating criteria consider the use classification of the receiving waters, water quality of the receiving waters, groundwater protection, project type, project purpose, and a tiebreaker; defined in 567 IAC 91.8 (455B). Priority ranking for the projects shall be based on the total points awarded for all the categories; the greater the total number of points, the higher the ranking. The ranking will be done at the time the IUP is prepared and will not be updated during the year. The tie breaker category will be used when necessary.

***Nonpoint Source Set-Aside Programs***

The rating criteria consider the use classification of the receiving waters, water quality of the receiving waters, groundwater protection, project type, project purpose, and a tiebreaker; defined in 567 IAC 91.8 (455B). Priority ranking for the projects is based on the total points awarded for all the categories; the greater the total number of points, the higher the ranking. The priority system for nonpoint source will not be implemented until 90 percent of a nonpoint source set-aside is allocated and no additional funds are available. If that occurs, ranking will be done at the time that a new project application is received.

**APPENDIX C****BORROWERS RECEIVING ADDITIONAL SUBSIDIZATION OR COUNTED FOR GREEN PROJECT RESERVE (GPR)**

Some GPR projects received additional subsidization. Other projects received add subs based on their disadvantaged community status.

Time limits may be established for loan commitments in order to apply loan forgiveness awards.

Project	Loan Amount	Amount Green Project Reserve	Amount Additional Subsidization	Grant Year Reported
Ottumwa			700,000	2016
Albert City	1,000,000		300,000	2016
Albert City	2,796,000		838,800	2016
WRA (sponsored)	1,070,000	1,070,000		2016
INHF	430,000	430,000		2016
INHF	903,297	903,297		2016
INHF	729,000	729,000		2016
INHF	1,125,000	1,125,000		2016
INHF	277,500	277,500		2016
INHF	611,000	611,000		2016
INHF	546,000	546,000		2016
INHF	1,958,400	1,958,400		2017
INHF	3,046,703	3,046,703		2017
Epworth WRR14-013	334,000	334,000		2017
North Liberty WRR15-005	1,426,000	1,426,000		2017
Storm Lake	1,755,000	1,755,000		2017
Storm Lake	1,500,000	1,500,000		2017
Storm Lake	750,000	750,000		2017
Storm Lake	574,000	574,000		2017
NPS	920,000	920,000		2017
NPS	370,000	370,000		2017
NPS	450,000	450,000		2017
Blakesburg WRR	28,000	28,000		2017
Sioux City WRR	474,000	474,000		2017
Keokuk WRR	245,000	245,000		2017
Fort Dodge WRR	108,000	108,000		2017
Epworth WRR14-013	55,000	55,000		2017
WRA WRR	144,000	144,000		2017
WRA WRR	780,000	780,000		2017
Fort Madison	324,000	324,000		2017
Keokuk WRR	583,000	583,000		2017
Rockwell City WRR	94,000	94,000		2017

Durant WRR	558,000	558,000		2017
<del>Fairbank WRR</del>	<del>325,000</del>	<del>325,000</del>		<del>2017</del>
<del>Johnston</del>	<del>4,434,000</del>	<del>4,434,000</del>		<del>2017</del>
<b>Project</b>	<b>Loan Amount</b>	<b>Amount Green Project Reserve</b>	<b>Amount Additional Subsidization</b>	<b>Grant Year Reported</b>
<del>Fairbank WRR</del>	<del>325,000</del>	<del>325,000</del>		<del>2017</del>
<del>Johnston</del>	<del>4,434,000</del>	<del>4,434,000</del>		<del>2017</del>
Calamus	<u>1,969,000</u>		590,700	2017
Deloit	<u>516,000</u>		154,800	2017
Calmar	<u>2,977,000</u>		893,100	2017
Lake View	<u>6,700,000</u>		155,800	2017
Lake View	<u>6,700,000</u>		844,200	2018
St Donatus	<u>842,000</u>		252,600	2018
Coralville	<u>2,952,000</u>		885,000	2018

INHF = Iowa Natural Heritage Foundation  
WRA = Wastewater Reclamation Authority

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**APPENDIX D**  
**SFY 2020 Sponsored Project Funding Recommendations**

<b>Applicant</b>	<b>Proposed Watershed and Project Description</b>	<b>Proposed Partners</b>	<b>Date Approved</b>
Clarinda	Implement agricultural best management practices (BMPs) within the Lower Nodaway HUC 10 watershed to reduce nutrient and risk from other pollutants to the City's surface water supply, and to reduce urban storm water discharge pollutants entering the West Nodaway River	Page CCB, Page SWCD, NRCS, IDALS	6/18/2019
Davenport	Implement best management practices throughout the Duck Creek Watershed to reduce bacteria, nitrogen, phosphorus, pesticides, sediment and hydrocarbons from urban and agricultural sources and implement recommendations from DCWMP in targeted areas of the watershed to address the bacterial impairment in Duck Creek	NRCS, IDALS, Scott SWCD	6/18/2019
Hawarden	Install urban storm water best management practices in three identified sub-watersheds of the Dry Creek and Green Creek watersheds within city limits in order to capture and treat storm water before it reaches the Big Sioux River	IDALS, Sioux SWCD	6/18/2019
Madrid	Stormwater BMP's in Murphy's Branch watersheds. Proposed storm water wetland will be recommended for funding contingent upon the ability for it to be adequately sized to meet the requirements in the Iowa Storm Water Management Manual within the existing foot print of the City owned property or the City's ability to reach an agreement to purchase the property necessary for the storm water wetland to be appropriately sized by the next Sponsored Project application deadline, September 3, 2019.	Polk SWCD	6/18/2019
Osceola	Implement urban storm water best management practices in order to treat or reduce urban storm water pollutants within six sub watersheds of South Squaw Creek, Upper Otter Creek, and Headwaters of White Breast Creek HUC-12 watersheds	Clark SWCD, IDALS	6/18/2019
WRA	Support the Raccoon River Water Quality Master Plan to reduce pollutants and improve the stream corridor stability and environmental functions through implementing sustainable stream restoration measures on Sugar Creek between Mills Civic Parkway and Booneville Road	Waukee, West Des Moines, Dallas SWCD	6/18/2019

**APPENDIX E****General Nonpoint Source Set-Aside Projects for Approval of Land Purchase**

Per Iowa Administrative Code 567 Chapter 93.7(5) Ineligible costs. Costs for livestock water quality facilities are not eligible under this set-aside and are provided for in rule 567—93.5(455B). Costs for the purchase of land are not eligible costs unless specifically approved by the commission.

Senate File 548, an Act relating to the acquisition, donation, or sale of real property for specific purposes, enacted by the general assembly, includes restrictions on general nonpoint source set-aside funds.

The language in SF 548, Section 455B.291, subsection 9, paragraph a (2)-(3), Code 2019, reads as follows:

(2) On and after July 2, 2019, nonpoint source water pollution control projects for purposes of subparagraph (1), shall not include the acquisition of real property by a private entity for future donation or sale to a political subdivision, the department, or the federal government except as included in subparagraph (3).

(3) Subparagraph (2) does not apply to the acquisition of land by a private entity intended for such future donation when the private entity acquires any of the following:

(a) Only that portion of land on which an edge-of-field practice consistent with the Iowa nutrient reduction strategy is installed to provide water quality benefits beyond the geographic footprint of the practice.

(b) Any necessary setbacks to a portion of land included in subparagraph division (a) as authorized by the department.

The language in SF548, Section 455B.295, subsection 2, paragraph a-b, Code 2019, reads as follows:

a. On and after July 1, 2019, moneys in the revolving loan funds shall not be used to finance, subsidize, or enable the acquisition of real property by a private entity except that moneys in the revolving loan funds may be used to finance or subsidize an acquisition of real property by a private entity that occurred prior to July 1, 2019, or the finance, subsidize, or acquire an edge-of-field practice or setback included in section 455B.291, subsection 9, paragraph "a", subparagraph (3).

b. For purposes of this subsection, "*edge-of-field practice*" means a bioreactor, saturated buffer, wetland, or buffer.

Overall, SF 548 has no fiscal impact to the SRF program. In summary, this bill places restrictions on the use of SRF funds related to land acquisitions by private entities. The bill does not restrict the SRF from continuing to use the water pollution control fund for other eligible projects with other eligible applicants. Since the SRF currently has the capability to fund all eligible projects, monies that would have otherwise been obligated to these land acquisition projects will now become available for other eligible, non-point source projects. Throughout this IUP year, the SRF program will, however, review administrative rules, program policies/procedures, implementation requirements, and outreach materials and update them, when applicable, to accommodate this bill.

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## FY 2020 INTENDED USE PLANS

### Drinking Water State Revolving Fund

#### I. STATE FISCAL YEAR 2020 PLAN OF ACTION

The plan is based on anticipated use of new and revolved funds available in the DWSRF for construction of treatment plants or improvements to existing facilities, water storage facilities, wells, and source water protection efforts.

The SFY 2020 Plan of Action covers the following areas:

- DWSRF goals and objectives
- Current and projected financial capacity of the DWSRF
- Financial management strategies
- Plan for the SFY 2020 project priority list
- Plan for use of DWSRF set-aside funds
- Plan for use of administrative accounts

#### **DWSRF Goals and Objectives**

The primary long-term goal of the Iowa DWSRF is to support the protection of public health through a perpetual program of financial assistance for the purposes of ensuring the provision of an adequate quantity of safe drinking water to consumers of public water supplies, protecting source water for drinking water systems, and ensuring the long-term viability of existing and proposed water systems.

The SFY 2020 short-term goals and objectives are as follows:

- Goal: Commit loan funds to as many recipients as possible in accordance with the state priority rating system, the IUP, staff resources, and available funding. *Objective: During SFY 2020, quarterly updates to the IUP will be prepared to add projects and update program financial information.*
- Goal: Ensure that borrowers are able to provide safe drinking water at a reasonable cost for the foreseeable future. *Objectives: During SFY 2020, viability assessments will be completed by each applicant and reviewed by SRF staff prior to signing of the loan agreement. Systems determined nonviable or systems with EPA's Enforcement Targeting Tool (ETT) scores above 11 will be provided with an enforceable compliance schedule listing all actions that must be completed to return the system to viable status. Extended term financing will be offered to disadvantaged communities. SRF staff will coordinate efforts with other funders such as the Community Development Block Grant program. We*



*will continue to educate and inform public water supplies, engineering consultants, and financial advisors on the financing savings available by using the DWSRF.*

- Goal: Require applicants to engage a registered Municipal Advisor (MA). *Objective: During SFY 2020, all applicants submitting an Intended Use Plan application must demonstrate that they have hired an MA to assist with cash flows, rate setting, debt service coverage, and other financial aspects of their water utility. The reports provided by the MAs will be used in the viability assessment review.*
- Goal: Implement the “Use of American Iron and Steel (AIS)” requirements enacted by Congress on January 17, 2014. *Objective: During SFY 2020, SRF staff will help applicants determine eligibility for the exemptions and waivers provided for in the Act and EPA guidance. SRF staff will provide information to those applicants required to comply on necessary documentation and inspection procedures. SRF will engage DNR Field Office staff to conduct site visits and provide technical assistance.*
- Goal: Apply additional subsidization available in FFY 2018 and FFY 2019 Capitalization Grant to disadvantaged community projects and public health projects. *Objective: During SFY 2020 SRF staff plans to approve plans and specifications and execute loans or loan amendments with loan forgiveness for the amounts required in the FFY 2018 and FFY 2019 Cap Grant.*
- Goal: Promote and identify sustainable practices in projects proposed for funding. *Objective: During SFY 2020 SRF staff will provide information on the EPA’s Sustainability Policy to applicants and include sustainability features in project descriptions.*
- Goal: Comply with EPA guidance on reporting under the Federal Funding Accountability and Transparency Act (FFATA). *Objective: In the Annual Report, SRF staff will list loans that met the several requirements of FFATA for open Capitalization Grants. Grants may not be closed out until equivalency amounts can be reported.*
- Goal: Comply with the EPA Signage Guidance. *Objective: During SFY 2020 SRF staff and recipients will notify the public in the most effective ways possible about assistance agreements and benefits of the DWSRF program in order to enhance public awareness of EPA assistance agreements nationwide. The Iowa SRF program sends out press releases listing all SRF loans that have closed and borrower contact information.*

Additional long-term goals include:

- Goal: Prioritize the provision of funds, to the extent practicable, to projects that address the most serious risk to human health and are necessary to ensure compliance with the national primary drinking water standards. *Objectives: Priority will be assigned to projects that address human health risks or compliance issues by the provision of points assigned during the DWSRF scoring process as outlined in 567 IAC Chapter 44.*
- Goal: Apply program requirements that are simple and understandable and do not add unnecessary burdens to applicants or recipients. *Objectives: During SFY 2020 SRF staff will continue to assist applicants with completing the federal cross-cutting requirements for environmental and historical review. Staff will not be responsible for Davis-Bacon compliance but will advise borrowers as needed. Borrowers will be responsible for compliance and may hire outside consultants to assist.*

- Goal: Continue the option of extended financing terms for DWSRF infrastructure projects. *Objective: During SFY 2020 this option will be offered to current and new projects on the project priority list. Applicants seeking extended financing must complete a worksheet outlining the anticipated life of the project components, which can be averaged to determine the extended term.*
- Goal: Maintain mechanisms for funding the on-going administration of the program if federal funding is reduced or eliminated. *Objective: During SFY 2020 initiation and servicing fees will be collected on DWSRF loans for deposit to administrative accounts. SRF staff will develop short and long-term plans for administrative budgets.*
- Goal: Manage the DWSRF to maximize its use and impact through sound financial management. *Objective: During SFY 2020 SRF staff and financial advisors will continue to conduct financial analysis and develop innovative approaches to financial management.*
- Goal: Implement programs that effectively address water system needs and target appropriate audiences. *Objective: During SFY 2020 SRF staff will continue to educate users and potential users about the program offerings through presentations, displays, program materials, and the IowaSRF.com website.*
- Goal: Update the DWSRF Operating Agreement. *Objective: In the future, SRF staff will work with EPA Region 7 to update the Drinking Water SRF Operating Agreement between DNR and EPA. The agreement has not been updated since 2007 [and the EPA is evaluating the future use of Operating Agreements in Region 7 states.](#)*

#### **Current and Projected Financial Capacity of the DWSRF**

Appendix A, the Estimated Sources and Uses table, shows that available funds are sufficient to fund current requests.

SRF staff has analyzed the future financial capacity of the DWSRF. Assuming continued Cap Grants, taking the full 31% set-asides and 26% loan forgiveness, and the same interest rates, it is projected that the DWSRF could loan an average of \$156 million per year over the next 10 years, or a total of \$1.56 billion. If we assume no additional Capitalization Grants but keep the same interest rates and the other assumptions, the DWSRF could loan an average of \$132 million per year over the next 10 years. Those amounts would increase if we were to increase our interest rate.

#### **Financial Management Strategies**

The DWSRF Project Priority List (attached) show total loan requests for water supply projects. Because many of these projects are in the planning phase, they are not expected to sign a binding loan commitment during this fiscal year. The projected timing and demand for loan draws is reflected in the sources and uses table (Appendix A).

Iowa will apply for the FFY 2019 Capitalization Grant. State match bonds are issued at the same time that leveraged bond issues are done for greater cost effectiveness. The last leveraged bond, issued in 2019, included the estimated state match for FFY 2019 Cap Grant.

The cash draw procedure used is the direct loan method. State match is fully disbursed prior to drawing EPA Capitalization Grant funds. The EPA Capitalization Grant funds will be drawn at a 100% proportionality ratio. Iowa's

bonds are cross-collateralized across both the Clean Water and Drinking Water SRF accounts.

#### ***SFY 2020 Project Priority List***

The management of the DWSRF program, including development of a project priority list for financing assistance, was developed according to Part 567 of the Iowa Administrative Code (IAC), Chapter 44. This IUP indicates the intent to provide funds to projects ranked in priority order according to scoring criteria contained in Chapter 44 of the IAC.

In the event that projects identified for funding in the IUP do not attain readiness for a loan commitment by projected dates, these delayed projects may be bypassed. Other projects may be added to the project priority list to be funded based on the State's implementation rules for the DWSRF program (567 IAC 44). Applications that are in excess of available DWSRF assistance may be placed on Contingency status according to priority.

Projects will be funded as ranked on the project priority list. Adjustment to the list of fundable projects will be made, if necessary, to assure that at least 15% of the project funds are available to systems serving fewer than 10,000 persons as specified in Section 1452(a) (2) of the Act. Financing may be provided for up to 100% of project costs if the costs are eligible for funding based on engineering, environmental, and financial review and project readiness to proceed as described above.

Due to the project workload and for planning purposes, the DWSRF staff may evaluate projects that have been on the IUP list for more than three years. A notification will be sent to the applicants that their project may be dropped if there is no progress in the six months following the notice. If a project is dropped, the applicant may reapply when the project is ready to move ahead.

For program planning purposes, the fundable projects are further identified as "R – ready for loan" (indicating that the construction permit and environmental review have been completed), and "P – in planning."

The following categories of projects will be included for funding during SFY 2020:

**Unfunded Prior Years' Projects.** All projects from prior years that have not entered into a binding commitment are included in this IUP.

**Segments of Previously Funded Projects.** State rules provide that subsequent segments of a project which has previously received funding priority or assistance be placed on the project priority list with the original project score.

**New Projects.** New applications for assistance during SFY 2020 will be added to the project priority list. Applications will be accepted on a continuous basis and quarterly updates completed as needed.

**Supplemental Financing.** Supplemental financing for projects listed in previously approved IUPs are added to the IUP as they are requested unless the additional funds will be used for improvements that would significantly change the scope of the project. Additional environmental review may be required. Supplemental loans will not be provided for changes that would lower the original score of the project to a point where the application is no longer competitive or is ineligible for funding.

**Planning and Design Loans.** Requests for planning and design loans are listed on the project priority list but have not been assigned priority points.

**Source Water Protection Loans.** All outstanding requests for source water protection loans have been satisfied and applications are no longer being taken. Source water loans are not eligible projects under the regular DWSRF loan program.

**Capitalization Grant Requirements.** The FFY 2016 - 2019 Capitalization Grants include congressional requirements for certain percentages of the funds to be allocated for additional subsidization. In the FFY 2019 Cap Grant, the Safe Drinking Water Act (SDWA) requires an additional 6% of Cap Grant dollars to be allocated for additional subsidization to Disadvantaged Communities (DAC).

The specific projects that have received add subs are listed in Appendix C, as well as new criteria for loan forgiveness eligibility. Additional projects identified for loan forgiveness to meet the FFY 2018 and FFY 2019 Capitalization Grant requirements will be listed on the DWSRF Project Priority List (Chart 1). [Time limits may be established for loan commitments in order to apply loan forgiveness awards.](#)

	Add Subs Rqd.	Add Subs Actual	%	DAC Req.	DAC Actual	%
2016	\$ 2,486,400	\$ 2,490,000	100%	N/A	N/A	N/A
2017	\$ 2,465,200	\$ - 2,251,701	102%	N/A	N/A	N/A
2018	\$ 3,469,577	\$ 2,651,369	76%	N/A	N/A	N/A
2019	\$ 3,486,400	\$	0%	\$ 1,045,920	\$	

## II. INFORMATION ON THE DWSRF ACTIVITIES TO BE SUPPORTED

### **Allocation of Funds**

Allocation of funds to eligible projects is based on a three-step process:

1. The amount of financial assistance needed for each application is estimated
2. The sources and spending limits for all DWSRF funds are identified
3. The DWSRF funds are allocated among the projects, consistent with the financial assistance needed

Information pertinent to each DWSRF project is contained in the attached Project Priority List.

### **Sources and Uses of Available DWSRF Funds**

Appendix A to the Intended Use Plan illustrates potential sources and uses of funds in the DWSRF for SFY 2020. As shown, all pending loan requests and program administration needs can be funded. Projects will draw on their funding at different intervals based on their construction cycles. These differences are used to estimate cash needs throughout the year. Appendix A will be updated quarterly as needed to provide an ongoing view of the financial plan for meeting loan requests.

The Iowa DWSRF program uses its equity fund to originate loans. When the number of loans that have been made creates a need for additional funds, IFA issues bonds, backed by those DWSRF loans, and uses the bond proceeds to replenish the equity fund.

**DWSRF Loan Policies**

**Project Scope.** The scope of the project must be outlined on the Intended Use Plan application and in the preliminary engineering report. Changes to the scope are allowed prior to loan closing. Significant changes in scope may cause delays if additional work is required by the project manager or environmental review specialist. Once a loan is signed, only minor changes to the scope will be allowed and only if they do not require additional technical or environmental review.

**Loan Interest Rates.** The interest rate for DWSRF construction loans are shown in the table below:

Loan Term	Applicant Type	Interest Rate	Servicing Fee	Total	Additional Information
Standard (up to 20 years)	All	1.75%	0.25%	2.00%	
Extended (21 to 30 years based on useful life)	Disadvantaged	1.75%	0.25%	2.00%	Please see below, "Extended Financing and Disadvantaged Status," for an explanation.
Extended (21 to 30 years based on useful life)	All	2.75%	0.25%	3.00%	Please see below, "Extended Financing and Disadvantaged Status," for an explanation.

Interest rates for DWSRF planning and design loans will be 0% for up to three years.

**Loan Fees.** A 0.5% origination fee is charged on the full loan amount for new DWSRF construction loans and source water protection loans, with a maximum amount of \$100,000. No origination fees will be charged on planning and design loans. A .25% servicing fee will be charged on construction loans. Payment of the loan servicing fee is semi-annual with interest payments for all new SRF loans. Loan servicing fees are only charged on the principal amount disbursed during construction (not the entire original loan amount).

**Maximum Financing.** There is no maximum financing amount.

**Project Readiness.** Applicants cannot be offered assistance until they meet program requirements.

**Funding Limitations.** All program requests for disbursements from DWSRF projects can be met. These estimates are based on the projections that, for projects that have completed program requirements and are ready for funding, 70% of the loan amount will be disbursed this fiscal year. For projects that are currently in the planning phase but may be ready for funding during SFY 2020, it is projected that only 60% of total funds will be disbursed to the project this fiscal year.

**Extended Financing and Disadvantaged Status.** The Iowa SRF can provide extended terms for a loan to any borrower as long as the extended term does not terminate more than 30 years after project completion and the loan term does not exceed the expected design life of the project. For borrowers designated as disadvantaged, the interest rate on extended term loans will be 1.75%. For non-disadvantaged borrowers, the interest rate will be 2.75%.

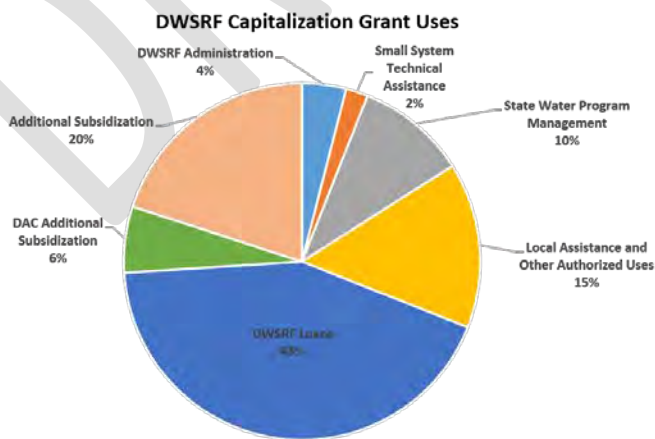
Extended term loans are limited to public water supply infrastructure improvements. Only those portions of a project that have a design life or life cycle exceeding 20 years are eligible for extended terms. The department will use the table of estimated useful lives from EPA’s publication 816-R-03-016 to determine the length of the loan for eligible expenses. The consulting engineer for the project will be required to separate and itemize costs so that a weighted maturity may be calculated for loan repayment. The list of itemized costs and expected useful lives will be required prior to signing of the loan agreement.

The Safe Drinking Water Act defines a disadvantaged community as the service area of a public water system that meets affordability criteria established after public review and comment. Community public water systems serving populations that contain a majority (51 percent) of Low to Moderate Income (LMI) persons will be considered disadvantaged for the purpose of receiving the 1.75% interest rate on an extended term loan. This criterion does not apply to any other DWSRF assistance such as additional subsidization. Low to moderate income is defined as 80 percent of the median household income in the county or state (whichever is higher) using the most recent federal census or income survey data. Privately owned community public water systems will be considered eligible for disadvantaged community status if an income survey indicates that the service area meets the LMI criteria. Rural water systems will be considered eligible for disadvantaged community status if an income survey indicates that the area benefiting from the improvements meets the LMI criteria. Income surveys must be done according to the protocol specified by the Community Development Block Grant program.

**Intended Use of Set-Asides**

States are allowed to take or reserve set-aside amounts from each federal Capitalization Grant for a number of activities that enhance the technical, financial, and managerial capacity of public water systems and protect sources of drinking water. The use of the set-asides as well as the loan program is intended to carry out Iowa’s goal of ensuring that the drinking water received by 92% of the population served by community water systems meets all applicable health- based drinking water standards through approaches including effective treatment and source water protection.

The amounts are subject to approval by EPA of program workplans. The DNR is following the SFY 2020 workplan. Iowa plans to take or reserve the allowed amount in each set-aside as shown in the chart.



DNR has two options for addressing the amounts available each year in set-asides. Set-aside funds may be reserved for future use (except for the Local Assistance and Other Authorized Uses set-aside), in which case they would be deducted from a future Capitalization Grant when they are ready to be taken. Funds that are taken from an available Capitalization Grant must be applied to planned work efforts approved by EPA.

In recent years, DNR has been using the set-asides and drawing upon reserved funds as needed to meet the needs for programs and efforts required by EPA that are critical for ensuring public health. Once the reserved amounts are expended, the amounts available for each set-aside will be limited to the percentage allowed out of each Capitalization Grant.

**DWSRF Program Administration Set-Aside.** Iowa intends to use this set-aside including loan administrative fees to pay the costs of administering the State Revolving Fund loan program. Among the uses for the set-aside are:

- Portfolio management, debt issuance, and financial, management, and legal consulting fees
- Loan underwriting
- Project review and prioritization
- Project management
- Environmental review services
- Technical assistance to borrowers
- Database development and implementation
- Program marketing and coordination
- Drinking Water Infrastructure Needs Survey

Unused commitments are reserved for use in future years as necessary.

**Small System Technical Assistance Set-Aside.** Iowa intends to use DWSRF funds equivalent to 2% of the federal Capitalization Grant funds to provide technical assistance to public water supplies (PWSs) serving populations of less than 10,000.

Funds from this set-aside will be used this year to provide support for the operator certification program including the administration and proctoring of examinations in all six regions of the state, and to provide training for new Grade A water system operators and continuing education for existing Grade A water system operators. Grade A is the certification grade for the smallest public water supply systems, with only disinfection treatment.

Unused commitments are reserved for use in future years for DNR staff and other purposes as necessary.

**State Program Support Set-Aside.** The primary uses of this set-aside are to assist with the administration of the Public Water Supply Supervision program, to review engineering documents for non-DWSRF construction projects, to provide wasteload allocations at public water systems with loans, and to evaluate disinfection contact time determinations, approve corrosion control strategies, and make influenced groundwater determinations.

Other uses include:

- Updating the SDWIS database including support systems and provide compliance determinations and information technology database support
- Adopting rules and revisions to the Iowa Administrative Code

Starting with the FFY 2017 Capitalization Grant, as amended through the Water Infrastructure Improvements for the Nation Act of 2016, a 50% state match for the State Program Support Set Aside is no longer required. Unused commitments are reserved for use in future years for DNR staff and other purposes as needed.

**Other Authorized Activities Set-Aside.** The two primary uses of this set-aside are capacity development and source water protection (SWP).

Funds are budgeted for efforts related to developing technical, managerial, and financial capacity for Iowa's public water supplies, including:

- Completion of sanitary surveys with the eight elements and providing direct capacity development technical assistance
- Training of inspectors in comprehensive performance evaluation protocols
- Provision of technical assistance related to capacity development through the area wide optimization program (AWOP)
- Contracts with five counties to complete sanitary surveys and conduct annual visits at transient non-community public water supply systems
- System-specific capacity development assistance by contractor, including promotion of asset management planning

The SWP activities include the following:

- Coordination and administration of the Source Water Protection program
- Contracts for services to develop SWP plans and review implementation of Best Management Practices
- Development of data for Phase 1 SWP assessments for all new systems and new wells at existing public water supply systems
- Technical assistance for well siting
- Maintenance of the *Source Water Mapper and Tracker* online database

#### ***Plan for Use of Administrative Accounts***

There are three distinct funding sources for DWSRF administrative expenses:

- The DWSRF administrative set-aside. Four percent of the cumulative amount of federal Capitalization Grants received may be used for program administration as discussed in the set-aside section above.
- Loan initiation fees. A 0.5% loan origination fee is charged on new DWSRF loans.
- Loan servicing fees. A fee of 0.25% on principal is charged on DWSRF loans.

The U.S. EPA issued fee guidance in March 2017 with a matrix showing the relationship between how fees are assessed and for what purposes they can be used. The following table shows how Iowa's fee policies comply with the guidance:



EPA Fee Category	Allowable Uses	Iowa DWSRF Fee Policy	Iowa DWSRF Fee Usage
Fees not included as principal and deposited into the Fund	Authorized uses of the Fund	N/A	N/A
Fees not included as principal and deposited outside the Fund	<ol style="list-style-type: none"> <li>1) Fund administration</li> <li>2) All other Capitalization Grant purposes under SDWA 1452</li> <li>3) State match for the Capitalization Grant</li> </ol>	Iowa charges a 0.25% servicing fee annually on outstanding principal. The funds are deposited outside the Fund.	Iowa uses servicing fees collected during the time the Capitalization Grant is open for administration of the DWSRF program. Servicing fee receipts collected after the Cap Grant is closed are used for other purposes under SDWA 1452.
Fees included as principal and deposited outside the Fund	<ol style="list-style-type: none"> <li>1) Fund administration</li> <li>2) All other Capitalization Grant purposes under SDWA 1452</li> <li>3) Cannot be used for state match for the Capitalization Grant</li> </ol>	Iowa charges a 0.5% initiation fee on all new loans which is included in loan principal. The fees are deposited outside the Fund.	Iowa uses initiation fee receipts for administration of the DWSRF program.
Fees included as principal and deposited into the Fund	Authorized uses of the Fund	N/A	N/A

**Fees Included as Principal.** As of April 2019, there was approximately \$5.2 million in the fee account from fees included as principal and deposited outside the fund (the initiation fee). A portion of these funds will be used in SFY 2020 for program administration, and the remainder will be reserved for future administrative expenses.

**Fees Not Included as Principal.** As of April 2019, there was \$8.6 million available from fees not included as principal and deposited outside the fund (servicing fee). A portion of these funds may be used in SFY 2020 to fund some of the activities completed under the State Program Management set-aside.

**SEE Salary Funds Deducted from Cap Grant**

The Iowa DNR may request U.S. EPA to deduct funds from FFY 2019 Capitalization Grants which could be included in Iowa’s next grant applications to EPA after receiving notification of availability of the funds. These positions could be filled by EPA Region 7 and assigned to the DNR’s Water Supply engineering section to provide administrative assistance to the DWSRF projects and program. The SEE enrollees could help provide staffing at Iowa DNR to maintain the DWSRF program and keep up with the increasing DWSRF project administrative work load. Authorized under the Environmental Programs Assistance Act of 1984 (PL 98- 313), the SEE program is intended "to utilize the talents of older Americans in programs authorized by other provisions of law administered by the Administrator in providing technical assistance to Federal, State, and local environmental agencies for projects of pollution prevention, abatement, and control."

**Plan for Efficient and Timely Use of DWSRF Funds**

In recent years, the processes of the DWSRF have been streamlined, and the marketing and education enhanced. These improvements have resulted in more efficient and timely use of the DWSRF and full utilization

of available funds. In particular, Iowa applies for and draws federal Capitalization Grants as expeditiously as possible. Iowa's DWSRF disbursements averaged \$4 million per month over the last 5 years. During the first 10 months of SFY 2019, the monthly disbursement averaged \$2.5 million.

Rather than doing one annual funding solicitation, with a discrete set of projects identified for funding that year, the Iowa SRF does quarterly updates to its Intended Use Plan. This creates a continuous pipeline of projects at different stages of readiness. Communities determine when they need their funding; the program does not set deadlines on loan execution as long as projects are making progress toward a loan.

With a return of \$2.95 for every dollar of federal investment (compared to the national average of \$1.95), Iowa's DWSRF is an efficient and effective delivery mechanism for water infrastructure funding.

DWSRF set-asides are typically fully utilized within a two-year planning and budgeting period. Iowa draws grant funds on a first-in, first-out basis in order to close out the Capitalization Grants. Due to increased water program budget needs and reduced funding from other sources, Iowa is spending reserved set-aside capacity at a faster rate than in the early years of the DWSRF program.

### III. ASSURANCES AND SPECIFIC PROPOSALS

Iowa will provide the necessary assurances and certifications according to the Operating Agreement between the State of Iowa and the U.S. EPA.

### IV. CRITERIA AND METHOD FOR DISTRIBUTION OF FUNDS

The following approach was used to develop Iowa's proposed distribution of DWSRF funds: (1) analysis of the priority of communities applying and financial assistance needed; (2) identification of the sources and spending limits of available funds; (3) allocation of funds among projects; (4) development of a payment schedule which will provide for making timely binding commitments to the projects selected for DWSRF assistance; and (5) development of a disbursement schedule to pay the project costs as incurred.

#### ***Priority of Communities and Financial Assistance Needed***

Iowa law provides only for loan assistance. Additional subsidization required by the FFY 2018-2019 Capitalization Grants will be through forgivable loans. The state's DWSRF rules identify the priority rating system used to establish priorities for financial assistance.

Projects are considered eligible for financial assistance for all planning and project costs providing the project is on the project list of an approved IUP.

#### ***Allocation of Funds among Projects***

All projects listed in the Project Priority List are eligible for assistance and may be funded from the DWSRF subject to available funds.

All projects scheduled for funding with Iowa's DWSRF will be reviewed for consistency with the Safe Drinking Water Act, as amended. Should a project fail to meet this review criterion, it may be bypassed or deleted from the funding list. Projects may be added to the Project Priority List in priority order as applications are received.

**V. METHOD OF AMENDMENT OF THE INTENDED USE PLAN**

The State will follow this IUP in administering DWSRF funds in SFY 2020. Federal and state law requires, and Iowa welcomes, opportunity for public participation in the development of the IUP. Any revisions of the goals, policies and method of distribution of funds must be addressed by a revision of the IUP, including public participation. Minor adjustments in funding schedules, loan amounts, and use of bypass provisions including funding of projects on the contingency list are allowed by the procedures of this IUP and state rules for administration of the DWSRF without public notification. Adjustments to the Project Priority List to utilize actual funds available to the DWSRF for SFY 2020 will be considered minor and only affected applicants will be notified. Public notice of amendments will be made if municipalities are added to or removed from the Project Priority List.

**VI. PUBLIC REVIEW AND COMMENT**

A public meeting to allow input to Iowa's SFY 2020 IUP and Project Priority List was held May 9, 2019, 10:00 a.m., at the Wallace State Office Building, Conference Room 4W, 502 E. 9th Street, Des Moines. This meeting was announced in a notice provided to stakeholder organizations representing city officials, consulting engineers, county governments, councils of government, area planning agencies, and other groups which might have an interest. There were no attendees. The public comment period was open until May 16, 2019. There were no written comments.

**VII. PROJECT PRIORITY LIST**

The DWSRF Project Priority List is included in a separate, sortable Excel file.

## APPENDIX A

**Iowa DWSRF State Fiscal Year 2020 Q1  
Estimated Funding Sources and Funding Uses  
As of 4/22/19**

**Funding Sources for Loans**

Funds Available in Equity Fund, Bond Proceeds and Program Accounts	\$131,007,000	*
<b>FFY 2019 Capitalization Grant</b>	\$12,028,000	**
<b>State Match Bond Proceeds for FFY 2019/20 Capitalization Grants</b>	\$5,785,000	**
Issuance of Leveraged Bonds (Next Bond Issue Expected SFY 2021)	\$0	
Equity Fund and Program Interest Earnings	\$270,000	
Loan Repayments	\$41,677,000	
<b>Total Funding Sources for Loans</b>	<b>\$190,767,000</b>	

**Funding Uses for Loans**

Undisbursed Amounts Committed to Existing Loans (75% disbursement rate)	\$42,134,000
Project Requests (FNSI/CX issued; 70% disbursement rate)	\$65,974,000
Project Requests (FNSI/CX not issued; 60% disbursement rate)	\$50,443,000
Planning & Design Requests (50% disbursement rate)	\$1,274,000
Principal Payments on Outstanding Bonds	\$17,065,000
Interest Payments on Outstanding Bonds	\$13,877,000
<b>Total Funding Uses for Loans</b>	<b>\$190,767,000</b>

\* Funds Available for disbursements as of 4/22/19

\*\* Estimated amount

\*\*\* Loan disbursement rates are estimated based on previous experience with project pace. For projects that currently have not had a Finding of No Significant Impact or Categorical Exclusion issued, it is expected that up to 60% of the total project amounts may be disbursed during SFY 2020 once environmental review is completed, construction permit issued, and binding loan commitment signed. For those projects with FNSI/CX clearance, the disbursement rate is estimated at 70% of the loan request amount.

All amounts rounded to the nearest \$1,000

**Funding Sources for Set Asides (Includes FFY 2018 & previous Cap Grants)**

Administration	\$715,000
Small Systems Technical Assistance	\$231,000
State Program	\$1,738,000
Other Authorized Activities	\$2,187,000
<b>Total Funding Sources for Set-Asides</b>	<b>\$4,871,000</b>

**Funding Uses for Set Asides**

Administration	\$715,000
Small Systems Technical Assistance	\$231,000
State Program	\$1,738,000
Other Authorized Activities	\$2,187,000
<b>Total Uses for Set Asides</b>	<b>\$4,871,000</b>

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**APPENDIX B  
PROCEDURES TO DETERMINE PROJECT PRIORITY LIST**

Project rankings were determined by the following procedures:

- Eligibility of applications were determined by needs criteria identified in IAC 567—44.7(8). In general, most water source, treatment and distribution system improvements are considered eligible.
- Project applications received during the SFY 2019 application period were considered for funding in SFY 2019; if not funded by the end of SFY 2019, these projects will be moved to the SFY 2020 project priority list.
- The priority ranking is a total score developed using the scoring criteria listed in IAC 567—44.7(8). Points may be gained in each of five categories: Water Quality and Human Health Risk-Related Criteria (60 point maximum), Infrastructure and Engineering-Related Improvement Criteria (35 point maximum), Affordability Criteria (10 point maximum), Special Category Improvements (15 point maximum), and Iowa DNR Adjustment Factor for Population (10 points). The combined score provides a numerical measure to rank each project within its pool. A project with a larger number receives higher priority.
- The final project priority list for a fiscal year's project pool is compiled in the following manner: Subsequent segments of projects funded by DWSRF loan programs of previous years will retain their original score and be added to the list of the current year's applications.
- Loan-eligible projects submitted will be placed on the IUP each calendar quarter. If the project is anticipated to proceed during SFY 2020, the project will be added to the project priority list and the list will be made available for public comment at the end of each calendar quarter in which one or more projects are added to the list.
- Projects on the project priority list will be moved to contingency status if the total amount of needs exceeds the year's DWSRF staff resources capability and loan funding. Projects will be funded from the top down in the ranking order of the project priority list with consideration given to readiness to proceed. Projects are ranked similarly in the contingency project list. Projects on contingency status can be moved to the funding list when funds are available or when the project is ready to proceed. Funds can be made available due to a number of reasons including project bypasses, loan application withdrawal of other projects, reduction in loan amount requests, or an increase in available funds.

**APPENDIX C****BORROWERS RECEIVING ADDITIONAL SUBSIDIZATION OR COUNTED FOR GREEN PROJECT RESERVE**

Loan forgiveness in the DWSRF program has been provided for four categories of projects through FY 2018 Cap Grant:

- Public Health (PH)
- Green Projects (G)
- Disadvantaged Communities (D)
- Emergency Power Generation (EP)

Beginning in FFY 2019 Cap Grant, loan forgiveness will be offered only to the Public Health (PH) category. Eligible projects addressing eminent health issues will receive up to 50% loan forgiveness and up to an additional 25% will be offered to those public health projects that choose the option of hooking onto another viable public water supply system to address their eminent public health issue.

The FFY 2019 Cap Grant also requires that an additional 6% of the state's allocation be used to provide loan forgiveness to Disadvantaged Communities (DAC).

[Time limits may be established on loan forgiveness awards.](#)

Type	Project	Loan Amount	Amount Green Project Reserve	Amount Additional Subsidization	DAC Additional Subsidization	Grant Year Reported
PH	Amana	5,400,000		2,490,000		2016
PH	Amana	5,400,000		1,301,691		2017
G	Sabula	550,000	550,000	101,460		2017
PH	Lacina Meadows	945,000		708,750		2017
EP	Osceola RW	3,719,000		64,800		2017
EP	Oelwein	1,462,000		75,000		2017
PH	Bellevue	2,200,000		1,650,000		2018
PH	Gallery Acres	1,184,000		888,000		2018
EP	Lyon-Sioux RWS Rock Rapids	90,163		67,622		2018
G	Cushing	61,100	18,330	18,330		2018
EP	Cushing	36,555		27,416		2018

**Iowa Department of Natural Resources  
Environmental Protection Commission**

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ITEM

7
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DECISION

**TOPIC:      Solid Waste Alternatives Program – Contract Recommendations**

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The Department requests Commission approval of the following two (2) contracts totaling \$458,625.

Aronson Woodworks, LLC	\$ 45,375
A-TEC Recycling, Inc.	\$413,250

The Department received seven (7) proposals requesting \$620,553 in financial assistance during the January 2019, round of funding. Five (5) project selections are endorsed for funding totaling \$585,453. Two (2) of the proposed awards, greater than \$25,000, are presented for Commission approval. These projects, if approved, total \$458,625 in a combination of forgivable, zero percent and three percent loans.

The review committee consisted of five persons representing the Land Quality Bureau (2), Iowa Society of Solid Waste Operations (1), Iowa Recycling Association (1), and the Iowa Waste Exchange (1).

Following the review committee meeting and Department discussions, the two project applications presented for Commission approval today were forwarded to a local CPA firm for an in-depth financial suitability review. In both cases, the financial suitability review was conducted and the conclusions provide support for the Department endorsing these projects and presentation to the Commission.

Funding for the Solid Waste Alternatives Program comes from a portion of the solid waste tonnage fee, assessed on municipal solid waste and construction and demolition waste being landfilled in Iowa landfills.

A description of the recommended projects, the project type, and the amount and type of funding assistance is attached.

At this time, the Department is requesting Commission approval to enter into a contract with the selected applicants.

Tom Anderson, Executive Officer II  
Land Quality Bureau  
Environmental Services Division

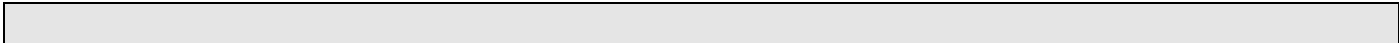
Attachment

- a) Project descriptions

May 28, 2019

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<b>Aronson Woodworks, LLC</b> 2372 Illinois Street Prole, IA 50229	<b>Forgivable Loan:</b>	<b>\$10,000</b>
	<b>0% Loan:</b>	<b><u>\$35,375</u></b>
	<b>Total Award Amount:</b>	<b><u>\$45,375</u></b>
		<b>Cash Match:</b>
		<b><u>\$15,125</u></b>
		<b>Total Project Cost:</b>
		<b>\$60,500</b>

**Project Title:** Beneficial Reuse of Emerald Ash Borer Affected Ash Trees

**Contact:** Megan Aronson **Phone:** 515-707-2721

**Project Type:** Best Practices – Recycling

**Applicant:** Private For Profit

**Service Area:** Metro Waste Authority landfill service area

**Description:** Applicant is proposing to expand their custom woodworking company to support beneficial reuse of Emerald Ash Borer damaged ash trees from the Metro Waste Authority service area. The applicant is a full service custom woodworking company manufacturing hand crafted furniture from reclaimed lumber. The company is working with local tree care and removal companies and the Metro Waste Authority landfill to obtain, salvage and repurpose impacted ash trees.

Current tree waste management practices at the MWA landfill is to bury tree waste under 24 inch diameter and grind tree waste greater than 24 inch diameter.

Funding will be used for the purchase of a skid loader to unload and manage ash tree waste on-site, a gooseneck trailer to transport tree waste from offsite to the facility, process equipment (saw mill and blade sharpener) and driveway preparation to improve delivery of tree waste by tree care and removal companies.

The project establishes a goal to divert and beneficially reuse 270 tons of Emerald Ash Borer impacted ash tree waste annually.

**PROJECT MILESTONES**

Deliverables	Task Milestone Date
Purchase and install saw mill, skid loader and gooseneck trailer	December 15, 2019
Complete milling infrastructure and driveway preparation	December 15, 2019
Project fully operational	December 15, 2019

**PROJECT BUDGET**

ITEM	DNR AWARD	COST SHARE	TOTAL COST
Skid loader	\$22,500	\$7,500	\$30,000
Saw Mill – Woodmeiser LT36Wide	\$9,000	\$3,000	\$12,000
Blade Sharpener	\$1,875	\$625	\$2,500
Gooseneck trailer	\$6,000	\$2,000	\$8,000
Milling infrastructure, gravel and driveway preparation	\$6,000	\$2,000	\$8,000
<b>TOTAL</b>	<b>\$45,375</b>	<b>\$15,125</b>	<b>\$60,500</b>

**A-TEC Recycling, Inc.**  
 5745 NE 17<sup>th</sup> Street  
 Des Moines, IA 50313

**Forgivable Loan: \$10,000**  
**0% Loan: \$50,000**  
**3% Loan: 353,250**  
**Total Award Amount: \$413,250**  
**Cash Match: \$137,750**  
**Total Project Cost: \$551,000**

**Project Title:** CRT lead Removal and Smelter Flux Production Systems  
**Contact:** Mike Seiler **Phone:** 515-262-5212  
**Project Type:** Best Practices - Recycling  
**Applicant:** Private For Profit  
**Service Area:** Nationwide

**Description:** The applicant is requesting assistance for a series of process improvements to better handle, manage and process cathode ray tube (CRT) glass generated throughout the US.

Process improvements include:

1. Finished product handling system: Improvements to the system will increase efficiency in the recovery, handling and the marketability of lead. Equipment to press the lead into tightly packed briquettes will create a more desirable product and facilitate safer handling and shipping when sold to lead battery manufacturers.
2. Smelter flux production system: Resulting from conversations with lead acid battery manufacturers, a prototype system was developed for producing specialty flux for lead smelting. This product has been produced and sold for over a year. A contract is in place for the sale of specialty flux and a second end market contract is ready, once the new system is in place. Funding is requested to replace the prototype system with a permanent, higher functioning process/system.
3. Truck loading system: The proposed system will convey Gaylord boxes and bulk sacks of processed glass through the building exterior and tipped directly into trucks or trailers for transport, thereby reducing inefficiencies and safety risks.
4. Automated CRT breaking and sorting system: As the volume of CRTs continue to increase and the applicant becomes an even larger downstream destination for major recycling companies, an automated system for breaking and sorting CRTs in preparation of further processing is required. The automated system will help alleviate this bottleneck in the current system.
5. Abrasive media production system: The non-lead glass portion of a CRT is currently processed using a prototype system that produces a product usable for road base, concrete manufacturing, road patching, and sand blast media. The proposed production system will rectify current throughput limitations and allow the applicant to further refine the non-lead glass as a marketable product. The proposed improvements are becoming increasingly important for A-TEC to serve as a downstream CRT processor.

The applicant recently secured another national contract to process stockpiled CRTs.

**PROJECT MILESTONES**

<b>Deliverables</b>	<b>Task Milestone Date</b>
Finished product handling for lead removal system	October 15, 2019
Smelter flux production system	January 15, 2020
Truck loading system	January 15, 2020
Automated CRT breaking and sorting system	May 15, 2020
Abrasive media production system	August 15, 2020
Project fully operational	September 1, 2020

**PROJECT BUDGET**

<b>ITEM</b>	<b>DNR AWARD</b>	<b>COST SHARE</b>	<b>TOTAL COST</b>
Finished product handling for lead removal system	\$59,250	\$19,750	\$79,000
Smelter flux production system	\$54,000	\$18,000	\$72,000
Truck/trailer loading system	\$29,250	\$9,750	\$39,000
Automated CRT breaking and sorting system	\$147,750	\$49,250	\$197,000
Abrasive media production system	\$123,000	\$41,000	\$164,000
<b>TOTAL</b>	<b>\$413,250</b>	<b>\$137,750</b>	<b>\$551,000</b>

**Iowa Department of Natural Resources  
Environmental Protection Commission**

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**ITEM**

<b>8</b>
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**DECISION****TOPIC:** Solid Environmental Management Systems Grant Award Recommendation

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**Recommendations**

The DNR received four (4) grant applications requesting a total of \$153,418 in financial assistance during the April 1, 2019 round of funding. In the round, \$153,418 was available. The Solid Waste Alternatives Program (SWAP) grant review committee selected four (4) projects for funding totaling \$153,418. Today DNR is seeking approval for one (1) application recommended for funding. It is greater than \$25,000, awarding a total of \$112,136, and presented here for your consideration and approval.

The Environmental Management System (EMS) Grant Review Committee (Review Committee) is made up of members of the Solid Waste Alternatives Program grant review committee. Reviewers represented: Department of Natural Resources (2), Iowa Society of Solid Waste Operations, Iowa Recycling Association, the Iowa Waste Exchange and a business representative from Vermeer Corporation.

**Contractor Selection Process**

This was a competitive grant round. Each program participant was eligible to apply for up to \$153,418, the program grant funding available after Grant Funding Round 1 (November 2018). Review Committee members each scored applications based on criteria set in the application. Scores were used to help each reviewer evaluate applications individually. Scores with yes/no/maybe votes were submitted to DNR prior to the May 9, 2019 meeting. At the Review Committee meeting, each application was discussed. Committee members then again voted yes/no. Projects with a majority of yes votes were funded with a funding level change to the application presented today.

At this time, the Department is requesting Commission approval to enter into an agreement with the selected applicant. A description of the recommended project, the project type, and the amount and type of funding assistance is attached.

**Background and Funding Source**

The Environmental Management System Program is a voluntary program established by 2008 Legislation House File 2570 (Iowa Code 455J.7). As established in Code, grant funds are available only to Solid Waste Agencies and Permitted Facility Service Areas designated as Environmental Management Systems by the Environmental Protection Commission. Applications must be consistent with EMS goals and demonstrate a commitment to continuous improvement.

Leslie Bullock Goldsmith  
Program Planner  
Environmental Services Division

June 18, 2019

**SOLID WASTE ALTERNATIVES PROGRAM EMS**  
**PROPOSAL RECOMMENDATIONS**

The DNR received four (4) grant applications requesting a total of \$153,418 in financial assistance during the April 1, 2019 round of funding. Four (4) projects were selected for funding. Three of the projects are under \$25,000.

The following provides a description of the project for which Commission approval is requested.

<b>Metro Waste Authority</b> <b>300 E Locust St Suite 100</b> <b>Des Moines IA 50309</b>		
	<b>Award:</b>	<b>\$ 112,136</b>
	<b>Cash Match:</b>	<b>\$139,464</b>
	<b>Total Project Cost:</b>	<b>\$251,600</b>
<b>Project Title:</b>	MWA Central Office Solar/Education Project	
<b>Contact:</b>	Chelsie Oxenford	Phone: 515-323-6508
<b>Description:</b>	MWA shall use grant funds to help purchase a solar array to be placed on or near the building located at 300 E. Locust St. (East Village), Des Moines, IA 50309. This property is owned my Metro Waste Authority. The solar array is anticipated to meet 25% of the building's electrical needs based on current usage, reducing greenhouse gas emissions. MWA will use this project as an education opportunity, both in the East Village and in their educational outreach program.	
<b>Target Area:</b>	The project area includes the Des Moines East Village area with educational efforts reaching the MWA service area including all of Polk County and parts of Dallas County.	

**Environmental Protection Commission  
Iowa Department of Natural Resources**

ITEM 

9
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DECISION

**TOPIC    Contract with the State Hygienic Laboratory for Laboratory Certification****Recommendations:**

Commission approval is requested for a one year service contract amendment with the State Hygienic Laboratory (SHL) at the University of Iowa. The contract amendment will begin on July 1, 2019 and terminate on June 30, 2020. The total amount of this amendment shall not exceed \$150,000.00.

**Funding Source:**

This contract amendment will be funded through Laboratory Certification Fees 567- 83.3 (455B) Iowa Administrative Code. The fees paid by laboratories support 100% of the cost of the contract. The contract agreement amount is an estimate. The actual cost will be based on the number of laboratories applying for certification in each year of the contract. The DNR pays 86.0% of the collected fees to SHL through this contract.

**Background:**

DNR certifies environmental laboratories throughout the United States for wastewater (CWA), drinking water (SDWA), solid waste or contaminated sites (SW/CS) and underground storage tank (UST) environmental programs. The SHL provides technical support as the laboratory appraisal authority. Any laboratory that provides environmental compliance data for Iowa programs must be certified in Iowa. Currently, there are 184 labs certified by the DNR.

**Purpose:**

The parties propose to enter into this Contract amendment for the purpose of retaining the Contractor to provide: 12 additional months of Laboratory Certifications.

**Contractor Selection Process:**

The DNR is entering into this Contract with SHL to perform the duties specified in 567 IAC Chapter 83. SHL serves as the state environmental and public health laboratory and possesses the required expertise to conduct this program.

**Contract History:**

The DNR has administered this program since 1986 and has utilized the SHL as the appraisal authority during this time. Fees collected by DNR have been disbursed to SHL through contracts. The DNR is authorized to contract with the SHL for these services under Iowa Code section 455B.103(3). The current contract is being amended to extend it for one additional year.

Kathleen Lee, Senior Environmental Specialist  
Water Quality Bureau  
June 18, 2019

Attachment(s): Scope of Work from the Special Conditions for Contract

## Section 5 STATEMENT OF WORK

**5.1 Statement of Work.** Contractor shall perform the following tasks. In accordance with and in a manner designed to accomplish the requirements of 567 IAC Chapter 83 - Laboratory Certification. Contractor shall complete its obligations under this Contract by the Task Milestone Dates set out in the following table.

Obligation	Task Milestone Date
<p><b>Task 1: Certification of the State Hygienic Laboratory</b>  <b>Description:</b> SHL shall comply with the requirements detailed in paragraph 567 IAC 83.6(4)"a". SHL is accredited by <i>the National Environmental Laboratory Accreditation Program (NELAP)</i>.</p>	<p>Certification of the SHL laboratories shall occur by the following dates:            Lab 027 – Iowa City;            2/1/2016            Lab 397 – Ankeny;            4/1/2016            Lab 393—Lakeside;            7/1/2015</p>
<p><b>Task 2: Administrative Functions</b>  <b>Description:</b> SHL shall:            Review and update, in collaboration with DNR, the standard operating procedure for the Laboratory Certification Program.</p> <p>Schedule quarterly meetings with DNR, or more frequent meetings if needed, to respond to DNR regarding any issues relating to the laboratory certification program. SHL shall provide the agenda, record the minutes, and assist in identifying responsibilities and due dates.</p> <p>Recommend solutions for Laboratory Certification concerns that arise.</p> <p>Respond, in a timely manner and in accordance with Iowa open records law, to requests from the DNR and the public for information concerning the laboratory certification program.</p> <p>Summarize compliance with these duties in written reports submitted to the DNR at quarterly DNR meetings. Any "in process" reports shall be explained in writing. A paragraph describing the status of each laboratory listed as in process shall be included in the report, including the actions required to bring the laboratory to certified status.</p>	<p>Quarterly or more frequently if needed</p> <p>Quarterly or more frequently if needed</p> <p>Ongoing</p> <p>Within 10 business days of receipt of the request</p> <p>Quarterly or more frequently if needed</p>
<p><b>Task 3: Application Processing</b>  <b>Description:</b> SHL shall:            Prepare or assist DNR with the preparation and, if necessary, revision of all communications related to the application process, including notices, applications, letters, documents of certification, and letters of revocation.</p> <p>Upon request by DNR, provide application packets to new or existing laboratories requesting to acquire or amend their certification.</p> <p>Distribute renewal application packets 90 days or earlier prior to the expiration of a laboratory's certification and distribute a second reminder notice 60 days before expiration.</p> <p>Ensure applications and renewals received are complete and submitted in a timely manner.</p> <p>Forward documents to DNR for signature and track processing of documents.</p> <p>Track revenues and refunds and provide this information to DNR each quarter. DNR shall provide revenue and refund documentation each quarter to SHL, so any discrepancies are identified during each quarter rather than at the end of the contract.</p> <p>Summarize compliance with these duties in written reports submitted to the DNR at quarterly DNR meetings.</p>	<p>Ongoing, as needed</p> <p>Ongoing</p> <p>90 days / 60 days prior to expiration</p> <p>Ongoing</p> <p>Ongoing</p> <p>Quarterly</p> <p>Quarterly</p>
<p><b>Task 4: On-Site Inspections</b></p>	

<p><b>Description:</b> SHL shall: Schedule on-site inspections of laboratories located within the State of Iowa within 90 days of receipt of a complete application from the laboratory.</p> <p>Conduct on-site laboratory inspections to evaluate laboratory equipment, procedures, records, and personnel in compliance with the requirements of 567 IAC Chapter 83 and the manuals of certification adopted by reference for each environmental program.</p> <p>Provide DNR a schedule of on-site laboratory inspections in a written format agreed upon by both DNR and SHL.</p> <p>Submit complete audit reports and letter of certification within 30 days of the inspection.</p> <p>Identify and track significant deficiencies and set due dates for corrective actions in the narrative of each certificate issued.</p> <p>Track performance evaluation and proficiency testing, corrective actions and status thereof; provide reminders within 30 days after the due date; and report noncompliance in the written quarterly report to DNR.</p> <p>Waive on-site inspections of out-state laboratories when conditions of reciprocal certification are met as outlined in subrules 567 IAC 83.3(2), Fees and Expenses, and 567 IAC 83.3(3), Reciprocity.</p> <p>When SHL deems necessary, SHL shall notify DNR and the laboratory that an on-site inspection is necessary to confer certification.</p> <p>SHL shall directly invoice the laboratory being inspected for the expenses associated with the on-site inspection.</p> <p>Conduct exit interviews with the laboratory at the end of the audit to summarize the findings, required corrective actions, and due dates.</p> <p>Provide feedback surveys to the laboratories at the end of each audit. SHL shall provide the survey in a stamped, self-addressed envelope plus an interior blank envelope. SHL shall provide the raw survey data and a rolling summary of results in each quarterly report.</p>	<p>Within 90 days of receipt of complete application Ongoing</p> <p>Ongoing</p> <p>Within 30 days of audit Ongoing</p> <p>Within 30 days of due date</p> <p>Ongoing and conditional</p> <p>As part of each audit</p> <p>As part of each audit, results in quarterly report</p>
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<p><b>Task 5: Certificate Recommendation</b>  <b>Description:</b> SHL shall:  Provide to DNR in writing, within 30 days of the audit, a DNR cover letter, certificate, list of parameters, narrative letter and on-site audit reports. The narrative letter shall describe deficiencies found, required corrective actions and due dates.</p> <p>Provide to DNR in writing, recommendations that shall include evidence of acceptable performance in proficiency testing.</p> <p>For reciprocal certification, SHL shall provide to DNR a written statement that a copy of the certificate by the accrediting provider was received and verification obtained that an on-site inspection was conducted</p> <p>Submit a recommendation for certification 30 days prior to a laboratory's certification expiration date if a complete application is received at least 60 days before the laboratory's certification expiration date.</p> <p>Amend a certificate as applicable when requested by DNR or when the laboratory provides appropriate documentation.</p> <p>Process applications for renewal of amendments within 90 days of receipt of a complete application.</p> <p>Maintain tracking systems and retain records relating to each certification cycle for each laboratory. SHL shall maintain 2 cycles of records plus the current cycle for a total of 6 years.</p>	<p>Within 30 days of audit</p> <p>Ongoing</p> <p>Ongoing</p> <p>Provide recommendation 30 days prior to certification expiration date if a complete application has been submitted 60 days prior to expiration</p> <p>Ongoing</p> <p>Within 90 days of complete application</p> <p>Ongoing</p>
<p><b>Task 6: Information Availability &amp; Maintenance</b>  <b>Description:</b> SHL shall:  Maintain an internet site to display the complete and current list of certified laboratories. SHL shall maintain current contact information for staff. The information shall be organized in a manner agreed upon by both DNR and SHL.</p>	<p>Ongoing</p>
<p><b>Task 7: Messaging &amp; Communications</b>  <b>Description:</b> SHL shall:  Notify the DNR lab cert coordinator when a lab audit shows significant deficiencies. When warranted, the SHL shall participate in a conference call with the DNR lab cert coordinator and the DNR regional field office to provide a briefing on the findings of the audit.</p>	<p>Within 5 business days of the audit</p>

**Original Budget ~ \$300,000. The budget is based on fees collected.**

**There is no breakdown of fees by task, and payments are made each quarter.**

**7.3 Budget & Submission of Invoices.** The budget and submission of invoices for this Contract shall be as follows:

The contractor shall invoice DNR \$37,500 per quarter for its services for the first seven quarters of the contract. The invoice for the final quarter of the contract shall be for an amount equal to 86.0% of the total net fees collected between 07/01/2014 and 6/30/2016 less \$262,500. The contractor shall invoice DNR in the final quarter of the contract for any repeat visits, correctional visits, or technical assistance requested by DNR. The fees, if any, are determined by the following structure:

Certification Repeat Visit	Not greater than \$300 per visit
Certification Correctional Visit not already billed per Chapter 83	Not greater than \$500 per visit
Technical Assistance as requested by DNR	As agreed to per Section 5.5, Amendments to Statement of Work

**Environmental Protection Commission  
Iowa Department of Natural Resources**

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ITEM

10

DECISION

TOPIC

**Contract with University of Iowa on behalf of the State Hygienic Laboratory:  
2020 SHL Services in Support of the DNR Air Quality Bureau**

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**Recommendations:**

Commission approval is requested for a one year-service contract with the University of Iowa on behalf of the State Hygienic Laboratory. The contract will begin on 7/1/2019 and terminate on 6/30/2020. The total amount of this contract shall not exceed \$1,824,768.

**Funding Source:**

Funding for this contract consists of federal 103 grant funds (\$425,103), air contaminant funds (\$1,086,721), and State "Environment First" HC2A funds (\$312,944).

**Background:**

Under Iowa Code 455B.103, the department has responsibility for conducting ambient air monitoring in the State of Iowa. SHL currently operates most of the ambient air monitoring sites in Iowa. It also provides analytical and technical support for ambient air monitoring activities throughout the State. It weighs particulate samples and performs analysis of air samples for many toxic compounds found in urban air. SHL also provides analysis of asbestos samples gathered by DNR inspectors. SHL conducts annual audits of SHL ambient air monitoring activities as well as those of the Local Programs. This contract provides for a continuation of these essential services.

**Purpose:**

The parties propose to enter into this contract for the purpose of retaining SHL to perform ambient monitoring and related services in support of the department's Air Quality Bureau.

**Contractor Selection Process:**

DNR is allowed to contract with the University of Iowa pursuant to Iowa Code section 455B.103. SHL has considerable experience in regulatory ambient air monitoring.

**Contract History:**

The DNR has contracted with the University of Iowa for ambient air monitoring services for over thirty years. This contract represents ongoing services provided by SHL to the Air Quality Bureau and is renegotiated annually. The last contract total was \$1,726,394.

Sean Fitzsimmons  
Environmental Specialist Senior  
Air Quality Bureau, Environmental Services Division  
June 18, 2019

**Attachment(s):** Special Conditions of the Contract (with Appendices)

## SECTION 5 STATEMENT OF WORK

**5.1 Statement of Work.** Contractor shall perform the following Tasks. Contractor shall complete its obligations under this Contract by the Task Milestone Dates set out in the following table.

Obligation	Task Milestone Date
<b>Task 1:</b> Provide trained staff to operate the Ambient Monitoring Network described in Appendix A with modifications described in Appendix B, and to perform additional duties as described in Appendices C-O.	See Appendix D
<b>Task 2:</b> Procure supplies and incur other operational costs as necessary for continued operation of the Ambient Monitoring Network and to carry out additional duties as described in Appendices C-O.	Appendix D
<b>Task 3:</b> Upgrade outdated or damaged capital equipment (equipment with a unit cost exceeding \$5,000) for use in the Ambient Monitoring Network as directed by DNR. Capital equipment shall be subject to the inventory and disposal requirements described in Appendix G.	Appendix D
<b>Task 4:</b> Provide training for ambient monitoring staff to perform tasks in the Ambient Monitoring Network. Training costs shall include vendor training hosted by SHL or costs associated with staff participation in out of town training or conferences.	Appendix D
<b>Task 5:</b> Purchase a vehicle to add to the Air Monitoring Fleet. The air monitoring fleet shall be maintained as described in Appendix H and vehicles shall be included in the equipment inventory described in Appendix G.	Appendix D
<b>Task 6:</b> Analyze air toxics samples in support of the Air Monitoring Network. This activity shall be funded solely by the cost of each sample analyzed as specified in Appendix M.	Appendix D
<b>Task 7:</b> Analyze lead samples in support of the Air Monitoring Network. This activity shall be funded solely by the cost of each sample analyzed as specified in Appendix N.	Appendix D
<b>Task 8:</b> Analyze asbestos samples provided by the DNR. This activity shall be funded solely by the cost of each sample analyzed as specified in Appendix O.	Appendix D

Task	Variable Payment Agreement Estimate	Task Milestone Date	Invoice Due No Later Than:
Task 1: Ambient Monitoring Network-Staff	\$1,101,711	See App. D	See 7.3.2
Task 2: Ambient Monitoring Network-Supplies	\$283,000	App. D	7.3.2
Task 3: Capital Equipment	\$174,000	App. D	7.3.2
Task 4: Vehicles	\$30,000	App. D	7.3.2
Task 5: Training	\$17,000	App. D	7.3.2
Task 6: Air Toxics Analysis	\$87,000	App. D	7.3.2
Task 7: Lead Analysis	\$4,000	App. D	7.3.2
Task 8: Asbestos Analysis	\$8,000	App. D	7.3.2
Facilities and Administrative Costs @ 8%	\$120,057	-	-
Total Not to exceed:	\$1,824,768	-	-

## APPENDICES

## APPENDIX A: EXISTING AMBIENT AIR MONITORING NETWORK (7/1/19)

AQS ID	Site	Parameter	Sampling Frequency
190130009	Waterloo—Water Tower Site	PM2.5 (FRM) PM2.5 BAM – Primary PM2.5 BAM – Secondary MET*	Every 3 <sup>rd</sup> Day Continuous Continuous Continuous
190170011	Waverly Airport	Ozone – Primary Ozone – Secondary MET	Continuous Continuous Continuous
190330018	Mason City, Holcim Cement	PM10 (FRM) – Primary PM10 (FRM) – Secondary	Every 3 <sup>rd</sup> Day Every 6 <sup>th</sup> Day
190450019	Clinton-Chancy Park	PM2.5 (FRM) Toxics (TO-11A) SO2 PM2.5 BAM – Primary PM2.5 BAM – Secondary MET**	Every 3 <sup>rd</sup> Day Every 6 <sup>th</sup> Day Inside Ozone Season, Every 12 <sup>th</sup> Day Outside Ozone Season Continuous Continuous Continuous Continuous
190450021	Clinton-Rainbow Park	PM2.5 (FRM) Ozone – Primary Ozone – Secondary MET*	Every 3 <sup>rd</sup> Day Continuous Continuous Continuous
190850007	Pisgah-Forestry Office	Ozone – Primary Ozone – Secondary MET	Continuous Continuous Continuous
191032001	Iowa City-Hoover School	PM2.5 (FRM) PM2.5 T640 – Primary PM2.5 T640 – Secondary Purple Air – Primary Purple Air – Secondary MET*	Daily Continuous Continuous Continuous Continuous Continuous
191110008	Keokuk Fire Station	PM2.5 (FRM)	Every 3 <sup>rd</sup> Day
191370002	Viking Lake State Park	PM2.5 (FRM) IMPROVE Speciation PM2.5 BAM – Primary PM2.5 BAM – Secondary Ozone – Primary Ozone – Secondary MET**	Every 3 <sup>rd</sup> Day Every 3 <sup>rd</sup> Day Continuous Continuous Continuous Continuous Continuous
191390015	Muscatine-Muscatine High School East Campus Rooftop	PM2.5 (FRM) – Primary PM2.5 (FRM) – Secondary PM10 (FRM)	Daily Every 6 <sup>th</sup> Day Every 3 <sup>rd</sup> Day
191390016	Muscatine-Greenwood Cemetery	PM2.5 (FRM) SO2 MET	Every 3 <sup>rd</sup> Day Continuous Continuous



191770006	Lake Sugema	PM2.5 (FRM) PM10 (FRM) IMPROVE Speciation PM2.5 BAM – Primary PM2.5 BAM – Secondary Ozone – Primary Ozone – Secondary SO2 NO2 MET**	Every 3 <sup>rd</sup> Day Every 3 <sup>rd</sup> Day Every 3 <sup>rd</sup> Day Continuous Continuous Continuous Continuous Continuous Continuous
191930021	Sioux City-Irving School	PM2.5 (FRM)	Every 3 <sup>rd</sup> Day

**MET\*\* indicates wind speed and direction, as well as ambient temperature, pressure, and relative humidity**

**MET\* indicates wind speed and direction as well as ambient temperature, and pressure**

**MET indicates wind speed and direction only**

#### **APPENDIX B: AMBIENT MONITORING NETWORK MODIFICATIONS**

##### **Monitors to be Added**

<b>AQS ID</b>	<b>Site</b>	<b>Parameter</b>	<b>Sampling Frequency</b>
191032001	Iowa City, Hoover School	Relative Humidity Temperature	Continuous Continuous
19137002	Viking Lake State Park	Purple Air – Primary Purple Air – Secondary	Continuous Continuous
19163020	Davenport, Hayes Elementary	Relative Humidity Temperature	Continuous Continuous
19177006	Lake Sugema	Purple Air – Primary Purple Air – Secondary	Continuous Continuous

##### **Monitors to be Removed**

<b>AQS ID</b>	<b>Site</b>	<b>Parameter</b>	<b>Sampling Frequency</b>
190450019	Clinton - Chancy Park	Relative Humidity	Continuous
191390019	Muscatine-Muscatine HS E. Campus Trailer	Relative Humidity	Continuous

## APPENDIX C: SPECIAL PROJECTS

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SHL shall complete the following special projects:

**New Monitoring Sites.** SHL shall install new monitoring sites and discontinue sites or monitors as indicated below and in Appendix B.

**Digital Data Capture.** By January 1, SHL shall configure its real-time website to accept only digital data from continuous monitors, and to display graphs of primary and secondary ozone and PM2.5 monitors.

**Sensor testing.** As directed by DNR, SHL shall test sensors for comparability with regulatory monitors. SHL shall:

- insure that these comparability studies do not compromise the data quality from SHL's regulatory monitors;
- monitor sensor data on a daily basis and promptly replace or repair malfunctioning sensors;
- stock adequate backup sensors in order to promptly replace malfunctioning sensors;
- provide monthly and quarterly reports containing data capture rates, installation, repair and removal dates and other data quality metrics for all sensors;
- utilize the Thingspeak Internet of Things (IOT) server to store and provide real-time access to sensor data during the comparability study;
- archive all hourly average sensor data once the comparability study is complete, or before it is removed by Thingspeak;
- coordinate any sensor deployments with DNR in to insure that appropriate data quality objectives (including calibration requirements) for sensors have been established before public reporting of the data has been initiated.

**Addition of Relative Humidity and Temperature Sensors.** By August 1, SHL shall add relative humidity and temperature sensors at the Davenport - Hayes Elementary monitoring site and at the Iowa City - Hoover School monitoring sites.

**Removal of Relative Humidity Sensors.** By August 1, SHL shall remove relative humidity sensors at the Clinton - Chancy Park monitoring site and at the Muscatine - Muscatine HS E. Campus Trailer monitoring sites.

**Addition of new Purple Air monitors.** By October 1, SHL shall add collocated Purple Air monitors at the Viking Lake and Lake Sugema monitoring sites.

**49IQ ozone monitor rollout.** SHL shall:

- host vendor training for the Thermo 49IQ ozone monitor for all Iowa reporting organizations by Sept.1;
- provide DNR with a draft SOP for the 49IQ ozone monitor by October 1;
- provide DNR with a final SOP for the 49IQ ozone monitor by December 1;
- deploy at least ten 49IQ field analyzers by March 1.

**Deployment of new monitoring shelter.** SHL shall deploy a new Shelter One monitoring enclosure at the ILCC - Emmetsburg monitoring site by June 30.

**APPENDIX D: OBLIGATIONS AND MILE-STONES**

<b>Obligation</b>	<b>Task Milestone Date</b>
Monitoring Network Expenses	30th day after the end of the calendar month
Sampler Operator Expenses	37th day after the end of the calendar month
QAPP/SOP's for New Equipment	60 days following receipt and before deployment
QAPP/SOP Revision submittal to DNR	30 days following notification by EPA, DNR
QAPP/SOP Revision submittal to DNR	30 days following promulgation of new rules or procedures by EPA (as requested in writing by DNR)
Copy of all Proposed QAPP/SOP Revisions to DNR	at least 30 days before proposed implementation date
Submission of Annual Network/Quality Assurance Review	15-Mar
Polk/Linn County QA Audit Complete Questionnaire	15-Mar
Polk/Linn County QA Audit Written Report of findings (hard copy and electronic)	1-Apr
PSD Monitoring Sites QAPP Review	within 30 days following DNR's written request
PSD Monitoring Sites Site Audits	on the quarterly monitoring schedule
PSD Monitoring Sites Site Audit Report	two weeks after site audit data received
PSD Monitoring Sites Data Review	within 30 days following DNR's written request
Sampling Frequency Change	within 30 days following DNR's written request
Management Meetings	Quarterly
Network Planning Report	15-Feb
Purchase of New Vehicles (1)	1-May
Email Notice of AQS Site/Monitor Changes	whenever database modifications are made
AQS/PARS Data Upload (Continuous Monitors)	15th of the month following the month of data collection
AQS/PARS Data Upload (Gravimetric Filters)	within 30 days of the end of the month of data collection
AQS/PARS Data Upload (toxics)	within 45 days of the end of the month of data collection (goal)
PM2.5 Gravimetric Results to Local Programs	within 30 days of the end of the month of data collection
Upload of SHL lead data	within 45 days of the end of the month of data collection
Email Notice of Monthly AQS Upload w/ Screening File and Error Reports	after monthly data has been uploaded
Backlog Report	after monthly data has been uploaded



Obligation	Task Milestone Date
Report of NAAQS Exceedance, Episode, or Threshold Exceedance	immediately, with written follow-up
Weekly Network Status Report	1st workday of each week
Monthly Monitoring Report	within 50 days of the end of each month
Quarterly Monitoring Report	within 50 days of the end of each quarter
Inventory Report	within 7 days of request
Survey or Passive Sampling Performed	within 30 days of request
Survey Sampling Report to DNR	within 30 days of analysis
Computer Security (including Data Acquisition Software)	1-Aug
Initiate relative humidity and temperature monitoring at the Davenport - Hayes School and Iowa City - Hoover School sites	1-Aug
Discontinue relative humidity monitoring at the Muscatine - Muscatine HS E. Campus Trailer and Clinton, Chancy Park sites	1-Aug
49IQ Ozone Monitor Rollout	
Vendor training	1-Sept
Draft SOP	1-Oct
Final SOP	1-Dec
Deploy ten 49IQ monitors	1-Mar
Website Upgrade	1-Jan
Add collocated Purple Air monitors at the Viking Lake and Lake Sugema monitoring sites	1-Oct
Deploy shelter at the Emmetsburg monitoring site	30-Jun

Environmental Protection Commission  
Iowa Department of Natural Resources

ITEM 11

DECISION

TOPIC **Contract with THE UNIVERSITY OF IOWA on behalf of THE STATE HYGIENIC LABORATORY for Ambient Stream Biologic Monitoring Support****Recommendations:**

Commission approval is requested for a 1 year-service contract with the State Hygienic Laboratory at the University of Iowa. The contract will begin on July 1, 2019, and terminate on September 30, 2020. The total amount of this contract shall not exceed \$671,896.62.

**Funding Source:**

This contract will be funded through Environment First State Appropriation.

**Background:**

The Clean Water Act requires States to monitor their waters to determine the status and trends in water quality. This contract is a continuation of DNR's long-standing partnership with SHL to collect and analyze samples from Iowa's streams and rivers. Since 1994, the DNR has conducted biological assessments of Iowa streams to determine the ecological status and health of these waterbodies. The protocol primarily consists of sampling water quality, fish, benthic macroinvertebrates and physical habitat during the summer low-flow index period (July through October). Data are placed into a publicly available database and are used by a wide variety of stakeholders including water quality programs; and for scientific research and general education.

**Purpose:**

The parties propose to enter into this Contract for the purpose of retaining the Contractor to provide: The parties propose to enter into this Contract for the purpose of retaining the Contractor to provide: assistance to DNR in sampling, analysis, and reporting on the biological quality of streams in the State of Iowa.

**Contractor Selection Process:**

DNR is allowed to contract with the University of Iowa for these services pursuant to Iowa Code section 455B.103. The University of Iowa was chosen for this project because of the long term experience with implementing this contract.

**Contract History:**

The DNR has been contracting with SHL for more than two decades to collect biological samples at streams across the State of Iowa and to test water samples for general chemistry, nutrients, and other compounds.

Roger Bruner, Environmental Program Supervisor  
Environmental Services Division / Water Quality Bureau  
June 18, 2019

Attachment(s): Scope of Work from the Special Conditions for Contract

**Statement of Work.** Contractor shall perform the following Tasks. Contractor shall complete its obligations under this Contract by the Task Milestone Dates set out in the following table.

Task*	Total Amount of compensation allotted to Task** (Variable *** Payment))	Task Milestone Date	Invoice Due No Later Than:
<p><b>Task 1: Calibrated Wadeable Stream Reference Site Sample Collection and Biological Analysis</b></p> <p><b>Description:</b> One full biocriteria (IBI) sampling event shall be completed by the Contractor at 25 Calibrated Wadeable Stream Reference sites identified in <b>Exhibit A</b>, which is attached to and shall by this reference become a part of this Contract. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.</p> <p>Contractor shall provide the following Deliverables to DNR for each of the 25 sites listed in <b>Exhibit A</b>:</p> <ul style="list-style-type: none"> <li>a) <u>Calibrated wadeable stream reference site sample collection</u>: benthic macroinvertebrates and fish (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms); benthic chlorophyll, water quality grab sample and field analytes (aquatic life parameter suite, as set out in <b>Table 1</b>, below).</li> <li>b) <u>Analysis of fish and benthic macroinvertebrate samples collected under Task 1a</u>: field form submittal, fish, benthic macroinvertebrate, physical habitat and field form data entry.</li> </ul> <p>Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 1b.</p>			
	Not to exceed \$111,329.00	a) October 15, 2019 b) April 1, 2020 c) May 1, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019
<p><b>Task 2: New Random Survey Site Sample Collection and Biological Analysis</b></p> <p><b>Description:</b> One full biocriteria (IBI) sampling event shall be completed by the Contractor at each of the 20 sites identified and described in <b>Exhibit A</b>. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.</p> <p>Contractor shall provide the following Deliverables to DNR:</p> <ul style="list-style-type: none"> <li>a) <u>New random survey site sample collection</u>: benthic macroinvertebrates and fish (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms); benthic chlorophyll, water quality grab sample and field analytes (aquatic life parameter suite; as set out in <b>Table 1</b>, below).</li> <li>b) <u>Analysis of fish and benthic macroinvertebrate samples collected under Tasks 2a</u>; field form submittal; and fish, benthic macroinvertebrate, physical habitat and field form data entry.</li> </ul> <p>Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 2b.</p>			
	Not to exceed \$100,999.00	a) October 15, 2019 b) April 1, 2020 c) May 1, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019
<p><b>Task 3: Repeat Random Survey Site Sample Collection and Biological Analysis</b></p> <p><b>Description:</b> One full biocriteria (IBI) sampling event shall be completed by the Contractor at each of the 20 sites identified in <b>Exhibit A</b>. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.</p> <p>Contractor shall provide the following Deliverables to DNR:</p>			

- a) Repeat random survey site sample collection: benthic macroinvertebrates and fish (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms); benthic chlorophyll, water quality grab sample and field analytes (aquatic life parameter suite, as set out in **Table 1**, below).
- b) Data logger deployment: A data logger shall be deployed at each site listed in **Exhibit A** for a two-week period directly preceding the biological sampling conducted at each site. The instruments shall be programmed to record dissolved oxygen and water temperature at six-minute intervals continuously throughout the deployment period. A flow measurement and two mini-flow measurements shall be taken at both deployment and retrieval visits.
- c) Field form submittal, submission (electronic) of current velocity measurements, data logger readings and flow measurements.
- d) Analysis of fish and benthic macroinvertebrate samples collected under Task 3a; field form submittal; and fish, benthic macroinvertebrate, physical habitat and field form data entry.

Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 3c and 3d.

	Not to exceed \$123,928.00	a) October 15, 2019 b) October 1, 2019 c) December 31, 2019 c) April 1, 2020 d) May 1, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019

#### **Task 4: Coldwater Stream Reference Site Sample Collection and Biological Analysis**

**Description:** One full biocriteria (IBI) sampling event shall be completed by the Contractor at each of the four sites identified in **Exhibit A**. A water temperature logger shall be deployed at each stream site in this Task for the duration of the biological index period. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.

Contractor shall provide the following Deliverables to DNR:

- a) Coldwater stream reference site sample collection: benthic macroinvertebrates and fish (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms); benthic chlorophyll, water quality grab sample and field analytes (aquatic life parameter suite, as set out in **Table 1**, below).
- b) Temperature logger deployment: A temperature logger shall be deployed at each site listed in **Exhibit A** for the duration of the index period defined as July 1 through October 15, 2019. The instruments shall be programmed to record water temperature at 15 minute intervals continuously throughout the deployment period.
- c) Analysis of fish and benthic macroinvertebrate samples collected under Task 4a; field form and thermal data submittal; and fish, benthic macroinvertebrate, physical habitat and field form data entry.

Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 4b.

	Not to exceed \$17,165.00	a) October 15, 2019 b) July 1 – Oct. 15, 2019 b) April 1, 2020 c) May 1, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019

#### **Task 5: Watershed Improvement Section (WIS) Survey Site Sample Collection and Biological Analysis**

**Description:** One full biocriteria (IBI) or benthic macroinvertebrate only sampling event shall be completed by the Contractor at each of the sites identified in **Exhibit A**. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.

Contractor shall provide the following Deliverables to DNR:

- a) Watershed Improvement Section (WIS) survey site sample collection: fish and/or benthic macroinvertebrates (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms); benthic chlorophyll, water quality grab sample and field analytes (aquatic life parameter suite, as set out in **Table 1**, below).
- b) Analysis of fish, benthic macroinvertebrate, benthic chlorophyll, and water quality samples collected under Task 5a; field form submittal; fish, benthic macroinvertebrate, physical habitat, field form data entry; and benthic chlorophyll and water sample submission (electronic) of samples collected under Task 5a.

Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 5b.

	Not to exceed \$7,031.00	a) October 15, 2019 b) December 31, 2019; 15 calendar days following the end of the month of collection for benthic chlorophyll and WQ samples. c) January 31, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019

#### **Task 6: Stream Nutrient Criteria Sample Collection and Analysis**

**Description:** One full biocriteria (IBI) sampling event shall be completed by the Contractor at each of the sites identified in **Exhibit A**. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.

Contractor shall provide the following Deliverables to DNR:

- a) Stream Nutrient Criteria Biological Sample Collection: fish and benthic macroinvertebrates (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms).
- b) Analysis of fish and benthic macroinvertebrate samples collected under Task 6a; field form submittal; fish, benthic macroinvertebrate, physical habitat, field form data entry.
- c) Analysis and data entry of 10 sets of benthic macroinvertebrate samples (40 samples total) that will be collected by DNR staff and submitted to SHL by October 15, 2019.

Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 6b and 6c.

	Not to exceed \$15,927.00	a) October 15, 2019 b) December 31, 2019 c) December 31, 2019 d) January 31, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019

#### **Task 7: Ambient WQ Site Biological Sample Collection and Analysis**

**Description:** The Contractor shall perform sample collection and analysis to support development of a benthic macroinvertebrate index for large wadeable and non-wadeable streams and for biological status monitoring.

Contractor shall provide the following Deliverables to DNR:

- a) Benthic macroinvertebrate and phytoplankton sample collection: One benthic macroinvertebrate sample consisting of three semi-quantitative subsamples and one qualitative sample (2015 DNR IBI protocols; 2015 revised DNR field forms) and one phytoplankton composition sample shall be collected at 19 DNR/SHL monthly stream monitoring locations as described

in **Exhibit A**. Semi-quantitative samples shall be collected using either a Hess sampler or multi-plate (Hester-Dendy type) artificial substrates to be determined by the Contractor. The artificial substrate deployment and benthic macroinvertebrate sampling visits shall coincide with scheduled ambient monthly monitoring visits if at all possible. If deployment or sampling visit must occur outside of monthly scheduled visit, SHL shall indicate that in annual cost estimate. A rapid habitat assessment form shall be completed at each site on the benthic macroinvertebrate sampling occasion.

- b) Benthic macroinvertebrate sample analysis of samples collected under Task 7a; field form and benthic macroinvertebrate data entry. Identification of benthic macroinvertebrates shall be completed to the lowest practical taxonomic level. In all of the semi-quantitative subsamples, the target level for organisms belonging to the aquatic Dipteran family of Chironomidae shall be genus or species. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.
- c) Phytoplankton sample analysis of samples collected under Task 7a and data entry. Identification of phytoplankton taxa shall be completed to the genus taxonomic level whenever feasible. Results shall be reported to DNR in a standardized electronic spreadsheet format approved by DNR.

Contractor shall conduct QA/QC of all data entered into the BioNet database under Tasks 7b and 7c.

	Not to exceed \$34,948.50	a) October 15, 2019 c) September 30, 2020 d) September 30, 2020 e) September 30, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019

#### **Task 8: Biological Trend Monitoring and Biological Analysis**

**Description:** The Contractor shall perform field work and sample collection to support biological trend monitoring. One full biocriteria (IBI) sampling event shall be completed by the Contractor at each of the nine sites identified in **Exhibit A**. The contractor shall install and maintain continuous temperature and water level recording equipment at each site throughout the contract period. All biological and physical habitat data shall be entered by the Contractor directly into the DNR's online BioNet database. All other recorded observations shall be reported to the DNR in a DNR-approved electronic format.

Contractor shall provide the following Deliverables to DNR:

- a) Trend site full biocriteria sample collection: benthic macroinvertebrates and fish (2015 revised DNR IBI protocols, 2015 revised DNR field forms); quantitative transect-based habitat survey (2015 revised DNR intensive habitat protocol; 2015 revised DNR intensive habitat field forms); benthic chlorophyll, water quality grab sample and field analytes (aquatic life parameter suite; as set out in **Table 1**, below).
- b) A flow measurement and nine densimeter readings (3 @ T1, 3@ T5 and 3 @ T10) shall be taken on each of the three maintenance visits. The three maintenance visits shall be once during the full biological sampling visit, once in the fall prior to freeze up and once in spring after ice out. Task 8 compensation also includes funds for a 4<sup>th</sup> visit to each of the nine biological trend sites, if needed.
- c) Analysis of fish and benthic macroinvertebrate samples collected under Task 8a; field form submittal; and fish, benthic macroinvertebrate, physical habitat and field form data entry.
- d) Field form submittal, submission (electronic) of densimeter and current velocity measurements, data logger readings and flow measurements collected under Task 8b.

Contractor shall conduct QA/QC of all data entered into the BioNet database under Task 8c and 8d.

	Not to exceed \$68,929.00	a) October 15, 2019 b) July 1 – April 30, 2019 c) May 31, 2020 d) May 31, 2020 e) May 31, 2020	The 30 <sup>th</sup> of each month following the month of collection beginning July 1, 2019

<p><b>Task 9: Water Quality Sample Analysis and Data Submission</b>  <b>Description:</b> The Contractor shall perform the analyses on the water quality and chlorophyll samples collected in Tasks 1-4 and Task 8.</p> <p>Contractor shall provide the following Deliverables to DNR:</p> <p>Benthic chlorophyll and water sample analysis and submission (electronic) of samples collected under Task 1a, 2a, 3a, 4a, 8a (as set out in <b>Table 1</b>, below).</p>	<p>Not to exceed \$32,370.00, at the fee per sample rates listed in Table 1</p>	<p>a) Dec. 1, 2019</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p><b>Task 10: Supplemental Monitoring</b>  <b>Description:</b> Contractor shall collect, analyze and report biological, water quality or fish tissue samples as part of follow-up monitoring or to investigate other water quality issues not covered elsewhere in this contract. Samples collected under this Task shall be specified, and approved in writing, by the DNR Contract Manager prior to collection.</p> <p>All sample analysis and submission (electronic) of samples collected under Task 10.</p>	<p>Not to exceed \$8,000.00</p>	<p>a) September 30, 2020</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p><b>Task 11: Site Reconnaissance and Landowner Contacts</b>  <b>Description:</b> SHL shall provide assistance to DNR for completing desktop review, field reconnaissance of sites and contacting landowners for the SFY2021 field season. SHL shall also provide the landowners of sites sampled in CY2019 either a pdf report or email containing the sampling results as per the request of the landowner.</p>	<p>Not to exceed \$10,000.00</p>	<p>September 30, 2020</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p><b>Task 12: Professional Services</b>  <b>Description:</b> SHL shall provide professional assistance to DNR in regard to the development of the large river and headwater stream IBIs. This assistance shall include researching the IBIs and data analysis. SHL shall provide a report to DNR, detailing all work completed under this Task, by the end of the contract period. DNR reserves the right to change the research and data analysis direction of this Task at its discretion.</p>	<p>Not to exceed \$10,000.00</p>	<p>September 30, 2020</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p><b>Task 13: Data Transfer</b>  <b>Description:</b> SHL shall make the data generated pursuant to this Contract</p>	<p>\$0</p>	<p>Throughout the term of the Contract</p>	<p>No amount is allotted for this Task.</p>

<p>available to DNR electronically through the State Hygienic Laboratory OpenELIS database web portal. Data shall be available for download by DNR staff in a mutually agreeable format. The available sample information shall include the STORET station identification number, which will be provided by DNR for all station locations. Data shall be retrievable via the web portal by DNR staff.</p> <p>Analytical reports may be retrieved electronically by DNR staff having the appropriate authorization. SHL shall assist DNR staff in obtaining appropriate authorization when requested.</p> <p>When accessing electronic data, the following information is required:</p> <ul style="list-style-type: none"> <li>• SHL OpenELIS/Telcor Organization ID number : 3051</li> </ul> <p>SHL Project Code: AMBBIO</p>			
<p><b>Task 14: Sampling Equipment replacement as needed</b>  <b>Description:</b> Contractor shall purchase equipment and supplies as needed for Tasks listed above.</p>	<p>Not to exceed \$20,000.00</p>	<p>Throughout the term of the Contract</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p><b>Task 15: Equipment Maintenance and Repair as needed</b>  <b>Description:</b> Contractor shall repair existing equipment, as needed for Tasks listed above.</p>	<p>Not to exceed \$10,000.00</p>	<p>Throughout the term of the Contract</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p><b>Task 16: Shipping Samples</b>  <b>Description:</b> Contractor shall ship samples as needed for Tasks listed above.</p>	<p>Not to exceed \$1,500.00</p>	<p>Throughout the term of the Contract</p>	<p>The 30<sup>th</sup> of each month following the month of collection beginning July 1, 2019</p>
<p>Sub-totals</p>	<p>Not to exceed \$572,126.50</p>		
<p>Facilities and Administrative Costs @ 8%</p>	<p>\$45,770.12</p>		
<p>Total</p>	<p>Not to exceed: \$617,896.62</p>		



**Table 1. Water quality sampling parameters, frequency and fee for Tasks 1-4 and 8.**

Parameter		Fee/ Test	# Sampling Sites	Total # of Samples	Total Fee
Carbonaceous Biochemical Oxygen Demand (CBOD5)		\$36.50	78	78	\$2,847.00
Chloride		\$14.50	78	78	\$1,131.00
Chlorophyll-A (periphyton)	Benthic	\$43.50	78	78	\$3,393.00
Chlorophyll-A (sediment)	Chlorophyll-A	\$43.50	78	78	\$3,393.00
Chlorophyll-A (water)		\$43.50	78	78	\$3,393.00
Field Measurements: (Dissolved Oxygen, pH, Stream Flow, and Water Temperature)		\$38.50	78	78	\$3,003.00
Hardness (as CaCO3)		\$14.50	78	78	\$1,131.00
Ammonia Nitrogen	Nitrogen Series	\$65.50	78	78	\$5,109.00
Nitrite + Nitrate Nitrogen					
Total Kjeldahl Nitrogen					
Dissolved Orthophosphate	Phosphorus Series	\$29.00	78	78	\$2,262.00
Total Phosphorus					
Sulfate		\$14.50	78	78	\$1,131.00
Total Dissolved Solids		\$14.50	78	78	\$1,131.00
Total Suspended Solids		\$14.50	78	78	\$1,131.00
Total Volatile Suspended Solids		\$29.00	78	78	\$2,262.00
Turbidity		\$13.50	78	78	\$1,053.00
Total:					\$32,370.00

Environmental Protection Commission  
Iowa Department of Natural Resources

ITEM 12

DECISION

TOPIC **Contract with THE UNIVERSITY OF IOWA on behalf of THE STATE HYGIENIC LABORATORY for Ambient Stream Monitoring Support****Recommendations:**

Commission approval is requested for a 1 year-service contract with the State Hygienic Laboratory at the University of Iowa. The contract will begin on July 1, 2019, and terminate on June 30, 2020. The total amount of this contract shall not exceed \$829,226.15.

**Funding Source:**

This contract will be funded through Environment First State Appropriation.

**Background:**

The Clean Water Act requires States to monitor their waters to determine the status and trends in water quality. These data from this program are used to determine general trends in larger river systems in the state, potential impairments, and to provide information to decision makers regarding the effectiveness of water pollution prevention programs. The DNR has been contracting with SHL for two decades to collect water samples at streams across the State of Iowa and to test water samples for general chemistry, nutrients, and other compounds. Data are placed into a publicly available database and are used by a wide variety of stakeholders including water quality programs; and for scientific research and general education.

**Purpose:**

The parties propose to enter into this Contract for the purpose of retaining the Contractor to provide: The parties propose to enter into this Contract for the purpose of retaining the Contractor to provide: assistance to DNR in sampling, analysis, and reporting on the water quality of streams in the State of Iowa.

**Contractor Selection Process:**

DNR is allowed to contract with the University of Iowa for these services pursuant to Iowa Code section 455B.103. The University of Iowa was chosen for this project because of the long term experience with implementing this contract.

**Contract History:**

The DNR has been contracting with SHL for two decades to collect water samples at streams across the State of Iowa and to test water samples for general chemistry, nutrients, and other compounds.

Roger Bruner, Environmental Program Supervisor  
Environmental Services Division / Water Quality Bureau  
June 18, 2019

Attachment(s): Scope of Work from the Special Conditions for Contract

**5.1 Statement of Work.** Contractor shall perform the following Tasks. Contractor shall complete its obligations under this Contract by the Task Milestone Dates set out in the following table.

Task*	Total Amount of compensation allotted to Task** (Variable *** Payment)	Task Milestone Date	Invoice Due No Later Than:
<p>Task 1: Ambient Stream Sample Collection</p> <p><b>Description:</b> Contractor shall collect stream grab samples from 60 non-city sites monthly, on the same day of the month, if possible, from July 1, 2019, through June 30, 2020. Table 1A, below, contains the list of sites. Samples collected as part of this activity shall be coded as 01WQFMM. All samples submitted to SHL by DNR or SHL staff shall be coded to a specific monitoring activity and shall include a detailed list of the analysis requested by DNR to be performed unless other arrangements have been made before shipment of the sample to SHL. SHL log-in procedures shall accommodate this code. The DNR project manager shall receive an email each time samples are logged in. The log-in email shall contain the SHL accession number, date the sample was collected, date received and any quality assurance issues related to the received sample. Any deviation from normal sampling procedures, including but not limited to a change in the sampling location, or omission of samples for analysis, shall be identified to DNR in writing prior to transmittal of analytical results.</p>	<p>Not to exceed \$163,440.00 at a cost of \$227.00 per sample for the sample locations listed in Table 1A.</p>	<p>See Section 5.1, above.</p>	<p>Invoices due monthly; 30 days after the end of the previous month.</p>
<p>Task 2: Ambient Stream Sample Analysis</p> <p><b>Description:</b> Contractor shall analyze samples collected under Task 1 for the parameters listed in Table 1B, below. For analytical results below the quantitation limit, the test quantitation limit shall be reported as “less than”. Analyses shall not be started or conducted on samples after</p>	<p>Not to exceed \$237,150.00 at the costs per test listed in Table 1B.</p>	<p>See Section 5.1, above.</p>	<p>Invoices due monthly; 30 days after the end of the previous month.</p>

<p>recommended holding times have been exceeded.</p>			
<p>Task 3: Additional Analyte Collection  <b>Description:</b> Contractor shall collect additional stream grab samples from 60 non-city sites in Task 1 above in July 2019, September 2019, November 2019, January 2020, March 2020, and May 2020 for analytes listed in Tables 1C, 1D, 1F and 1G. Samples shall be collected in July 2019, January 2019, and May 2020 for analytes listed in Table 1E. Samples collected as part of this activity shall be coded as 01WQFMM. All samples submitted to SHL by DNR or SHL staff shall be coded to a specific monitoring activity and shall include a detailed list of the analysis requested by DNR to be performed unless other arrangements have been made before shipment of the sample to SHL. SHL log-in procedures shall accommodate this code. The DNR project manager shall receive an email each time samples are logged in. The log-in email shall contain the SHL accession number, date the sample was collected, date received and any quality assurance issues related to the received sample. Any deviation from normal sampling procedures, including but not limited to a change in the sampling location, or omission of samples for analysis, shall be identified to DNR in writing prior to transmittal of analytical results.</p>	<p>Not to exceed \$5,760.00.</p>	<p>See Section 5.1, above.</p>	<p>N/A</p>
<p>Task 4: Additional Analyte Analyses  <b>Description:</b> Contractor shall analyze samples collected under Task 1 for the parameters listed in Table 1C, 1D, 1E, and 1F below. Samples collected under this activity shall be coded to 01WQFMM. For analytical results below the quantitation limit, the test quantitation limit shall be reported as "less than". Analyses</p>	<p>Not to exceed \$358,452.00 at the costs per test listed in Tables 1C, 1D, 1E, 1F and 1G.</p>	<p>See Section 5.1, above.</p>	<p>Invoices due monthly; 30 days after the end of the previous month.</p>

<p>shall not be started or conducted on samples after recommended holding times have been exceeded.</p>			
<p>Task 5: QA/QC Procedures  <b>Description:</b> Contractor shall submit information on data quality requirements and assessments (such as detection limit, quantitation limit, estimated accuracy, accuracy protocol, estimated precision, and precision protocol) to DNR for any sample upon request. Information on the analytical reference method, sample preservation and holding time, instrumentation calibration, and analyst also shall be provided if requested by DNR. Contractor shall provide copies of revised Methods Manuals and Standard Operating Procedure Manuals to the DNR upon request. Copies of manuals and procedures shall be available from the laboratory.</p>	<p>\$0.00</p>	<p>See Section 5.1, above.</p>	<p>N/A</p>
<p>Task 6: Additional Sampling and Analysis in Support of Monitoring Goals  <b>Description:</b> Contractor shall analyze and report water samples collected by DNR staff as part of follow-up monitoring, to verify results of regular fixed monitoring, or to investigate other water quality issues not covered elsewhere in this Statement of Work. Samples submitted under this task shall be analyzed for parameters specified by DNR staff and approved in writing by the Contract Manager. Analyses shall not be started or conducted on samples after recommended holding times have been exceeded. Samples analyzed under this activity shall be coded to WQSPEC.</p>	<p>\$0.00</p>	<p>See Section 5.1, above.</p>	<p>Invoices due monthly; 30 days after the end of the previous month.</p>
<p>Task 7: Data Transfer  <b>Description:</b> SHL shall make the data generated pursuant to this Contract available to DNR electronically through the State Hygienic Laboratory OpenELIS database web portal. Data shall be available for download by DNR staff in a mutually agreeable format. The available sample information shall</p>	<p>\$0.00</p>	<p>See Section 5.1, above.</p>	<p>N/A</p>

<p>include the STORET station identification number, which will be provided by DNR for all station locations. Data shall be retrievable via the web portal by DNR staff.</p> <p>Analytical reports may be retrieved electronically by DNR staff having the appropriate authorization. SHL shall assist DNR staff in obtaining appropriate authorization when requested.</p> <p>When accessing electronic data, the following information is required:</p> <ul style="list-style-type: none"> <li>SHL OpenELIS/Telcor Organization ID number : 3024</li> </ul> <p>SHL Project Code: 01WQFMM, WQSPEC</p>			
<p>Task 8: Equipment Purchase <b>Description:</b> Contractor shall purchase equipment and supplies as needed for Tasks listed above.</p>	Not to exceed \$1000.00	See Section 5.1, above.	Invoices due monthly; 30 days after the end of the previous month.
<p>Task 9: Equipment Repair <b>Description:</b> Contractor shall repair existing equipment, as needed for Tasks listed above.</p>	Not to exceed \$1,500.00	See Section 5.1, above.	Invoices due monthly; 30 days after the end of the previous month.
<p>Task 10: Shipping Samples <b>Description:</b> Contractor shall ship samples as needed to meet required holding times.</p>	Not to exceed \$500.00	See Section 5.1, above.	Invoices due monthly; 30 days after the end of the previous month.
Sub-totals	\$ 767,802.00		
Facilities and Administrative Costs @ 8%	\$61,424.16		
Total	Not to exceed \$829,226.16		

**Table 1A. Ambient Stream Sampling Locations (60)**

Stream Name	Ambient Monitoring Station Locations	River Basin	STORET #
Upper Iowa River	Highway 76 bridge three mi south of Dorchester	NE	10030001
Yellow River	County Rd X36 bridge three miles south of HWY 76 at Ion	NE	10030002
Chariton River	461 <sup>st</sup> bridge, NE of Rathbun	S	10040002
Beaver Creek	County Rd. T75 bridge 3.5 mi NW of Cedar Falls	IC	10070001
Wolf Creek	At Main St. bridge in La Porte City	IC	10070002
West Fork Cedar River	County Rd. T71 bridge in Finchford at USGS gage	IC	10070003
Black Hawk Creek	Ridgeway Avenue bridge SW of Waterloo	IC	10070004
Cedar River	County Rd. north of Janesville 0.25 mi east of Highway 218, upstream of USGS gage	IC	10090001
Wapsipinicon River	County Rd. bridge 0.5 mi west of County Rd. D16, north of Independence (Otterville Access)	NE	10100001
Shell Rock River	County Rd. C45 bridge in Shell Rock, below the dam downstream of USGS gage station	IC	10120001
Little Sioux River	County Rd. C16 bridge 5.2 mi east of Larabee	W	10180001
Turkey River	County Rd. C43 (Jupiter Rd.) south of Garber at USGS gage	NE	10220001
Volga River	County Rd. X3C bridge north of Elkport	NE	10220002
Bloody Run Creek	Highway 18 bridge, 0.5 mi west of Marquette	NE	10220003
South Raccoon River	G Trail bridge 0.75 mi SE of Redfield	DSM	10250001
Thompson Fork-Grand River	U.S. Highway 69 bridge at Davis City	S	10270001
Little Sioux River	225 <sup>th</sup> St. bridge 1.2 miles west of Milford, 0.5 mi upstream of mouth of Mill Creek	W	10300001
Cedar River	County Rd. bridge four mi SE of Charles City, near Carville	IC	10340001
East Nishnabotna River	Highway 59 bridge north of Shenandoah	S	10360001
Boone River	Bells Mills Rd. bridge, 6.5 mi NE of Stratford	DSM	10400001
Iowa River	County Rd. D53 bridge 1.8 mi NE of Gifford	IC	10420001
Boyer River	County Rd. F58 bridge 2.5 miles NE of Missouri Valley	W	10430001
Soldier River	County Rd. F20 bridge west of Pisgah	W	10430002
Cedar Creek	Gravel road bridge three mi SW of Oakland Mills	SK	10440001
West Fork Des Moines River	Gotch Park Rd. two miles south of Humboldt	DSM	10460001
No. Fork Maquoketa River	County Rd. north of Maquoketa, SE of Hurstville	NE	10490001
Maquoketa River	0.9 miles upstream of Highway 61 bridge NW of Maquoketa	NE	10490004
Indian Creek	N 51 <sup>st</sup> Ave. W bridge 1.8 mi east of Green Castle, 4.8 mi north of Colfax	SK	10500001
Old Man's Creek	County Rd. W62 bridge 5.0 mi SW of Iowa City	IC	10520001
North Skunk River	180th Ave. bridge SW of Sigourney, west of Highway 149	SK	10540001
E. Fork Des Moines River	County Rd. B63 bridge north of St. Joseph	DSM	10550001
Cedar Rapids DS1	Highway 30 bridge east of Cedar Rapids	IC	10570001
Iowa River	County Rd W66 (660 <sup>th</sup> Street) bridge at USGS gauge SW of Lone Tree	IC	10580002

<b>Stream Name</b>	<b>Ambient Monitoring Station Locations</b>	<b>River Basin</b>	<b>STORET #</b>
South Skunk River	Highway 63 bridge north of Oskaloosa	SK	10620001
Whitebreast Creek	30 <sup>th</sup> Ave. bridge 3 miles NW of Melcher-Dallas	DSM	10630003
Cedar Creek	State Highway 156 (County Rd. G71) bridge, 1.5 mi NW of Bussey	DSM	10630002
Iowa River	County Rd E35 bridge east of Marshalltown (Marshalltown DS1)	IC	10640002
West Nishnabotna River	Mahr Ave. bridge 3 miles SE of Malvern	S	10650001
Maple River	At Highway 141-175 bridge 0.25 mi north of Mapleton	W	10670002
Cedar River	County Rd. G28 bridge NE of Conesville	IC	10700001
West Nodaway River	County Rd. J53 bridge near Shambaugh	S	10730001
East Nodaway River	State Highway 2 bridge 2.5 mi east of Clarinda	S	10730002
Floyd River	County Rd. C70 bridge three mi north of Sioux City	W	10750001
Beaver Creek	NW 70th Avenue bridge, two miles east of Grimes	DSM	10770001
North Raccoon River	310 <sup>th</sup> St. bridge one mile downstream of USGS gage, Section 13/24 (Sac City DS1)	DSM	10810001
Wapsipinicon River	Highway 956 bridge three mi south of DeWitt	NE	10820001
Rock River	County Rd. B40 bridge north of Hawarden	W	10840001
South Skunk River	280 <sup>th</sup> St. bridge approx.. 0.7 miles east of Ames WWPT (Ames DS1)	SK	10850002
Middle River	USGS gage 1.5 mi west of Highway 65-69, near Indianola	DSM	10910001
North River	County Rd. R57 bridge, SE of Norwalk at USGS gage.	DSM	10910002
South River	State Highway 92 bridge near Ackworth	DSM	10910003
English River	County Rd. W61 bridge south of Riverside	IC	10920001
Little Sioux River	Lenox Ave. bridge 3 miles NE of Smithland	W	10970001
West Fork Little Sioux River	Highway 141 bridge 1.0 mi east of Hornick at USGS gage	W	10970002
Des Moines River	Des Moines River at Keosauqua	DSM	10890001
Iowa River	Iowa River at Wapello	IC	10580003
Little Sioux River	County Rd. E54 bridge 3.75 miles S of Turin	W	10670003
Maquoketa River	Maquoketa River near Spragueville	NE	10490005
Nishnabotna River	Nishnabotna River above Hamburg	W	10360003
Skunk River	Skunk River at Augusta	SK	10560002



**Table 1B. Sample Analysis for 60 Ambient Sites**

<b>Parameter</b>	<b>Cost/Test</b>	<b># Sampling Sites</b>	<b>Frequency of Sampling</b>	<b>Lab Method</b>	<b>Total Cost</b>
Temperature	\$7.00	60	12	SM 2550	\$5,040.00
pH	\$7.00	60	12	SM 4500 H	\$5,040.00
DO	\$7.00	60	12	SM 4500 O	\$5,040.00
Flow - manual*	\$17.50	3	12	N/A	\$630.00
Ammonia Nitrogen	\$14.50	60	12	LAC 10-107-06-1J	\$10,440.00
Nitrite + Nitrate Nitrogen (as N)	\$14.50	60	12	LAC 10-107-04-1J	\$10,440.00
Total Kjeldahl Nitrogen (as N)	\$36.50	60	12	LAC 10-107-06-2E	\$26,280.00
Dissolved Orthophosphate (as P)	\$14.50	60	12	LAC 10-115-01-1A	\$10,440.00
Total Phosphate (as P)	\$14.50	60	12	LAC 10-115-01-1D	\$10,440.00
Total Dissolved Solids	\$14.50	60	12	SM 2540 C	\$10,440.00
Total Volatile Suspended Solids	\$29.00	60	12	EPA 160.4	\$20,880.00
Total Suspended Solids	\$14.50	60	12	USGS I-3765-85	\$10,440.00
Turbidity	\$13.50	60	12	SM 2130 B	\$9,720.00
Hardness (as CaCO <sub>3</sub> )	\$14.50	60	12	SM 2340 C	\$10,440.00
Chloride	\$14.50	60	12	EPA 300.0	\$10,440.00
Sulfate	\$14.50	60	12	EPA 300.0	\$10,440.00
CBOD <sub>5</sub>	\$36.50	60	12	SM 5210 B 5 C	\$26,280.00
Escherichia coli	\$18.00	60	12	Colilert MPN	\$12,960.00
Chlorophyll a	\$43.50	60	12	EPA 445.0	\$31,320.00
<b>SUB-TOTAL</b>	<b>\$346.00</b>			<b>Sub-total</b>	<b>\$237,150.00</b>

**Table 1C. Sample Analysis for BLM Support at 60 Ambient Sites**

Parameter	Cost/Test	# Sampling Sites	Frequency of Sampling	Lab Method	Total Cost
Total Alkalinity	\$14.50	60	6	SM 2320 B 18th	\$5,220.00
Calcium	\$14.50	60	6	200.8	\$5,220.00
Magnesium	\$14.50	60	6	200.8	\$5,220.00
Potassium	\$14.50	60	6	200.8	\$5,220.00
Sodium	\$14.50	60	6	200.8	\$5,220.00
Dissolved Organic Carbon	\$36.50	60	6	9060	\$13,140.00
<b>SUB-TOTAL</b>	<b>\$109.00</b>			<b>Sub-total</b>	<b>\$39,240.00</b>

**Table 1D. Sample Analysis for Dissolved and Total Metals Support at 60 Ambient Sites**

Parameter	Cost/Test	# Sampling Sites	Frequency of Sampling	Lab Method	Total Cost
Aluminum, total	\$25.00	60	6	200.8	\$9,000.00
Arsenic, dissolved	\$27.20	60	6	200.8	\$9,792.00
Cadmium, dissolved	\$27.20	60	6	200.8	\$9,792.00
Chromium, dissolved	\$27.20	60	6	200.8	\$9,792.00
Copper, dissolved	\$27.20	60	6	200.8	\$9,792.00
Lead, dissolved	\$27.20	60	6	200.8	\$9,792.00
Nickel, dissolved	\$27.20	60	6	200.8	\$9,792.00
Selenium, dissolved	\$27.20	60	6	200.8	\$9,792.00
Silver, dissolved	\$27.20	60	6	200.8	\$9,792.00
Zinc, dissolved	\$27.20	60	6	200.8	\$9,792.00
<b>SUB-TOTAL</b>	<b>\$269.80</b>			<b>Sub-total</b>	<b>\$97,128.00</b>

**Table 1E. Filter Blank Analysis for Dissolved Metals Support**

Parameter	Cost/Test	# Sampling Sites	Frequency of Sampling	Lab Method	Total Cost
Arsenic	\$27.20	60	3	200.8	\$4,896.00
Cadmium	\$27.20	60	3	200.8	\$4,896.00
Chromium	\$27.20	60	3	200.8	\$4,896.00
Copper	\$27.20	60	3	200.8	\$4,896.00
Lead	\$27.20	60	3	200.8	\$4,896.00
Nickel	\$27.20	60	3	200.8	\$4,896.00
Selenium	\$27.20	60	3	200.8	\$4,896.00
Silver	\$27.20	60	3	200.8	\$4,896.00
Zinc	\$27.20	60	3	200.8	\$4,896.00
<b>SUB-TOTAL</b>	<b>\$244.80</b>			<b>Sub-total</b>	<b>\$44,064.00</b>

**Table 1F. Sample Analysis for Standard Herbicides Support at 60 Ambient Sites**

Parameter	Cost/Test	# Sampling Sites	Frequency of Sampling	Lab Method	Total Cost
<b>Nitrogen containing Herbicides</b>	\$145.50	60	6	EPA 8270	\$52,380.00
EPTC, Butalyate, Propachlor, atrazine,					
Deisopropyl atrazine, Simazine, Acetochlor,					
Desethyl atrazine, Trifluralin, Promethon,					
Propazine, Dimethenamid, Metribuzin,					
Alachlor, Amethryn, Metolachlor,					
Cyanazine, Butachlor					
<b>SUB-TOTAL</b>	<b>\$145.50</b>			<b>Sub-total</b>	<b>\$52,380.00</b>

**Table 1G Sample Analysis for Standard Pharmaceuticals Support at 60 Ambient Sites**

<b>Parameter</b>	<b>Cost/Test</b>	<b># Sampling Sites</b>	<b># Samples Submitted</b>	<b>Lab Method</b>	<b>Total Cost</b>
<b>Pharmaceuticals</b>	\$349.00	60	6	LC/MS – UHL-H-020	\$125,640.00
Acetaminophen, Caffeine,					
Carbamazepine, Cotinine, Diclofenac,					
DEET, Gemfibrozil, Ibuprofen,					
Lincomycin, Metoprolol,					
Sulfadimethoxine, Sulfamethazine,					
Sulfamethoxazole, Sulfathiazole,					
Trimethoprim					
<b>SUB-TOTAL</b>	<b>\$349.00</b>				<b>\$125,640.00</b>

**Iowa Department of Natural Resources  
Environmental Protections Commission**

# 13

**Decision Item****Contract with the City of Des Moines (Yeader Creek Stream Improvements – Phase Two)**

**Commission approval is requested for a contract with the City of Des Moines, Iowa.**

**Contract Terms:**

**Amount:** Not to exceed \$936,480.00.

**Dates:** June 15, 2019 to December 31, 2020.

**Funding Source(s):** \$625,000 Lake Restoration; \$311,480 DNR Section 319.

**Statutory Authority:** Lake Restoration: IAC 456A.24 Lake Restoration Plan and Report; DNR Watershed Improvement (Section 319 Funds): 11 IAC 118.4

**Background:** Easter Lake, located within Easter Lake Park, has been a recreational resource for the residents of Des Moines, Iowa, and surrounding communities since 1967. However, over the last several years the water quality of the lake has diminished due to increased loads of nutrients and sediment as development has occurred around the lake. Currently, the lake suffers from poor water clarity, algal blooms, high sedimentation rates, low oxygen concentrations, and a poor fishery.

In response to these water quality problems, area stakeholders worked together in 2012 to develop the Easter Lake Water Quality Management Plan. The planning effort was co-sponsored by DNR, Polk CCB, and the City of Des Moines. Other support agencies involved in review and development of the Plan included the Iowa Department of Agriculture and Land Stewardship, Polk County Soil and Water Conservation District, and the Natural Resources Conservation Service. The Plan serves as the most current culmination of existing studies, citizen and stakeholder input, and the consultant's recommendations for structural and nonstructural Best Management Practices intended to reduce delivery of pollutants to Easter Lake and restoration of Easter Lake.

The DNR has been working with partners to reduce nutrient and sediment loads from the watershed to Easter Lake and recently completed a comprehensive in-lake restoration project. To date, over 100 best management practices (BMPs) have been installed in the watershed. Practices installed include urban storm water management practices, construction of ponds, and streambank stabilization projects along Yeader Creek. In-lake restoration work removed approximately 550,000 CY of sediment from the lake. Additionally, a fish rearing pond was constructed near the lake, 2000 feet of shoreline was stabilized, an in-lake silt dike was constructed, the outlet structure of the lake was updated to include a fish barrier, and the gate-valve structure has been replaced. Also, eleven new jetties were installed, numerous fish habitat structures were installed in the lake, and a fishery renovation was completed.

**Previously completed watershed work:**

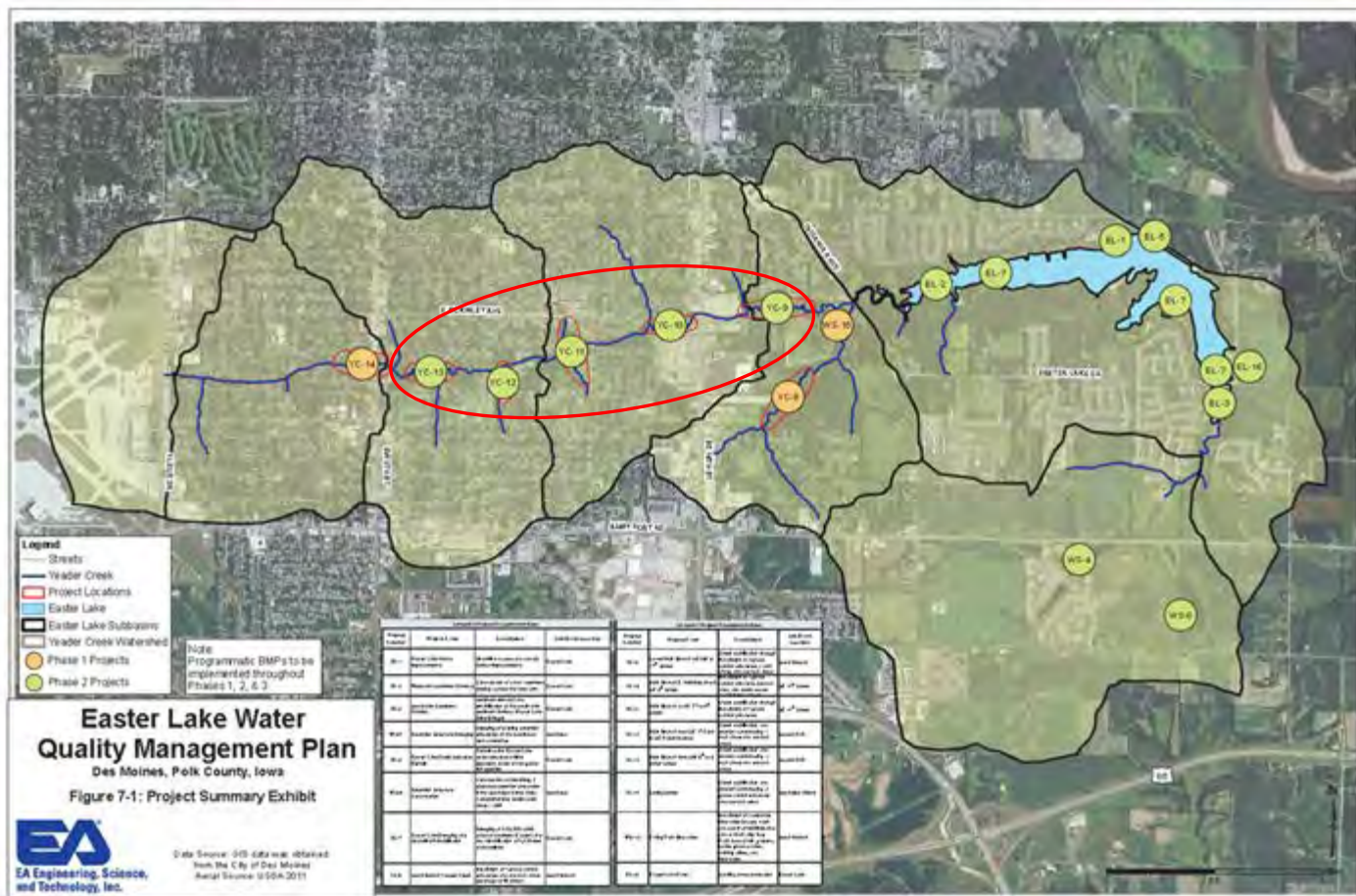
<b>Watershed Work Completed</b>	<b>Budget</b>	<b>319</b>	<b>LRP</b>	<b>DSM</b>	<b>PCCB</b>	<b>IDALS</b>	<b>Other</b>
Coordinator/I&E/Monitoring	\$318,500	\$318,500					
YC-8 and YC-14	\$1,492,332	\$373,083	\$373,083	\$746,166		Support to project for office space and vehicle provided by NRCS	
WS-15 (Ewing Park)	\$165,668	\$41,417	\$41,417	\$82,834			
Woodland Restoration	\$195,300	\$45,000					\$150,300
Urban BMPs/Rainscaping	\$399,150	\$99,788		\$99,788	\$99,788		\$99,788
Urban BMPs/Rainscaping	\$135,133					\$101,350	\$33,783
Sediment Basin	\$252,000	\$100,000			\$152,000		
Grade Stabilization Structure	\$22,000	\$16,500		\$4,400			\$1,100
WS-4 (South Watershed Ponds)	1,827,200		\$425,000	\$1,402,200			
<b>Watershed Phase 1 - Total</b>	<b>\$4,807,283</b>	<b>\$994,288</b>	<b>\$839,500</b>	<b>\$2,335,388</b>	<b>\$251,788</b>	<b>\$101,350</b>	<b>\$284,971</b>

Previously completed in-lake work:

Lake Restoration Completed	2015 - 2019 Budget	2015 - 2019 (LRP)	2015 - 2019 (PCCB)
Containment site purchase	\$279,422	\$92,209	\$187,213
Engineering - design	\$771,000	\$462,600	\$308,400
Engineering Admin./Oversight	\$250,453	\$187,840	\$62,613
Fish Rearing Pond and Spillway Modification	\$475,428	\$356,571	\$118,857
Sedimentation Basins and Drainageway	\$514,735	\$386,051	\$128,684
Hydraulic Dredging	\$3,253,068	\$2,439,801	\$813,267
Dredging Mechanical, Shoreline, Habitat	\$3,873,827	\$2,905,370	\$968,457
Fish Access (boat ramp)	\$15,000	--	\$15,000
Fish Renovation	\$35,000	\$35,000	--
<b>Lake Restoration - Total</b>	<b>\$9,467,933</b>	<b>\$6,865,442</b>	<b>\$2,602,491</b>

**Contract Purpose:** DNR’s purpose in entering into this Cooperative Agreement is to reimburse the City of Des Moines for stream improvement practices (including but not limited to multiple grade control structures, streambank stabilization, toe rock, creation of stream habitat, and native prairie/grassland restoration) to five segments (YC-13, YC-12, YC-11, YC-10, and YC-9) located on Yeader Creek in conformance with the Easter Lake Water Quality Management Plan dated October 2, 2012 (see figure 1; sites to be constructed circled in red). Together these stream improvements will provide an estimated pollution reduction of 880 tons of sediment per year and 80 pounds of phosphorus per year delivered to Easter Lake.

DNR Contribution: Not to exceed \$936,480.00  
 City of Des Moines: \$2,174,520.00  
 Total Cost: \$3,111,000.00



**Statement of Work/Task:**

Task 1: Yeader Creek (Sites YC-9, YC-10, YC-11, YC-12, and YC-13) Stream Restoration

Description: City shall acquire the necessary property rights along Yeader Creek. The City shall administer and oversee construction improvements (as outlined in Exhibit 1: Construction Plans) at five sites along Yeader Creek (YC-9, YC-10, YC-11, YC-12, and YC-13). Stream improvements shall be completed to control bed and bank erosion, designed to meet water quality goals as identified in the 2012 Water Quality Management Plan.

To be eligible for funding, the City of Des Moines shall meet the following obligations:

1. Construct the stream restoration sites to be substantially consistent with the final design plans approved by the DNR.
2. Provide DNR with documentation of the City of Des Moines process of advertising, bid letting and approval of contracts for these activities.
3. Provide the DNR with documentation to support local project money raised. Federal fund, other state/nonstate public funds, and private funds raised by the City may be combined to meet the local match requirement, subject to the approval of DNR.
4. Provide DNR a set of as-built construction plans prepared by the City or its consultant and/or contractor upon completion of construction activities. Provide DNR with additional documentation required to support its inspection and final acceptance of the completed construction activities.
5. Provide DNR with an estimate of pollutant load reductions from improvements.

Any documentation required in items 2-4 shall be provided with the invoice to DNR from the City.

Amount Due for Task 1- Not to exceed \$936,480. Invoice due no later than December 31, 2020

**Selection Process Summary:** Intergovernmental contracting with the City of Des Moines is authorized under 11 IAC 118.4. Also contracts with state universities and other public agencies for laboratory work, scientific field measurement and environmental quality evaluation services necessary to implement Iowa Code Chapter 455B is authorized under Iowa Code section 455B.103(3).

**Contract History:**

14ESD-GSB-RGlaz-0010 – Yeader Creek 8 and 14 stream stabilization project  
 18CRDLWBMBALM-0002 – Easter Lake Watershed Improvements  
 19ESDWQBKAMEN-0003 – South Entrance Stabilization Project  
 19ESDWQBKAMEN-0004 – SE 14<sup>th</sup> St. Bio-Retention Cells

Kyle Ament, Watershed Basin Coordinator, Water Quality Bureau  
 Environmental Services Division  
 June 18, 2019

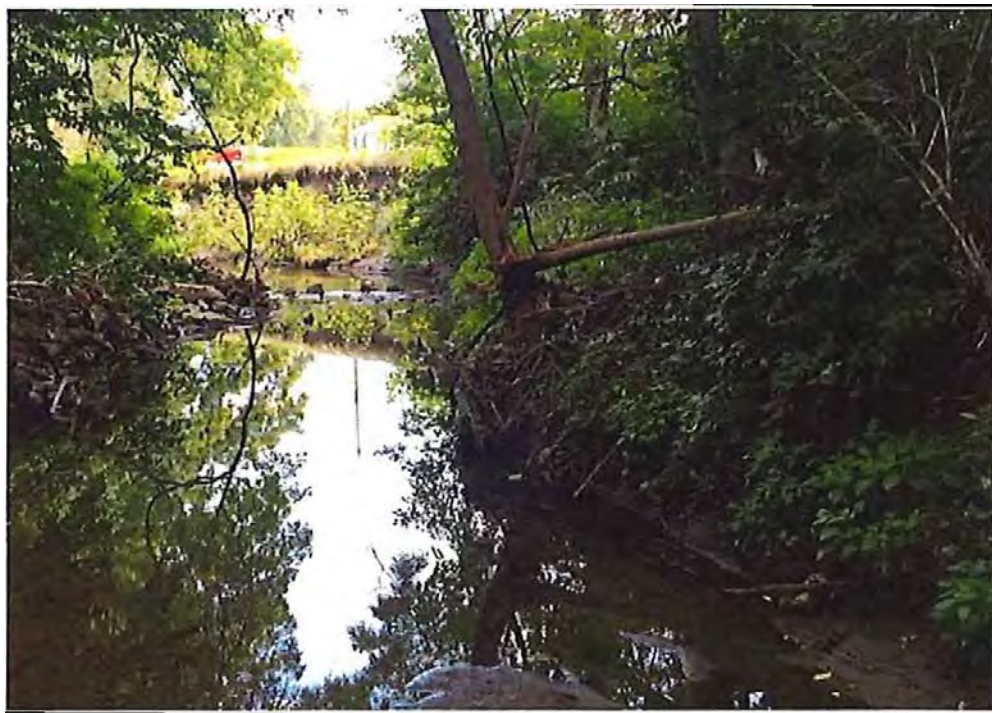


Photo 1 – Area before Yeader Creek Phase 1



Photo 2 – After completion of Yeader Creek Phase 1 (Looking upstream at SW 12<sup>th</sup> St. pedestrian bridge)

**Iowa Department of Natural Resources  
Environmental Protection Commission**

# 14

**Decision Item**

**Grant Agreement Amendment # 1** the original grant agreement with Region XII Council of Governments

**Commission approval is requested for a grant agreement amendment with** Region XII Council of Governments, of Carroll, Iowa.

**Amendment # 1** to the original grant agreement **Terms:**

**Amendment Amount:** \$ 416,000

**Amendment Dates:** July 1, 2019 to June 30, 2020

**Funding Source(s):** Iowa Code section 455E.11 (2)(a)(2)(c).

**Amendment Purpose:** The purpose of the Grant Agreement Amendment is to:

Extend the time allowed to perform the Tasks set out in the Original Grant Agreement, to provide for additional money being paid out by the DNR, and to change the Grantee Project Manager.

**Original Grant agreement Purpose:** Under Iowa Code section 455E.11, the DNR is to provide competitive grants to Iowa Community Colleges and/or Councils of Governments for a by-products and waste exchange system, which is the Iowa Waste Exchange (IWE). Established in 1990, the IWE is a confidential, non-regulatory program that enables the recycling of used and unwanted materials by matching parties that have those materials with others who look to obtain and add value to such resources. Waste Exchange services are delivered at no cost to customers. Central office oversight and support for the IWE is conducted primarily through the Financial and Business Assistance section of the Land Quality Bureau in the DNR's Environmental Services Division.

The DNR entered into this Grant Agreement in order to fulfill its statutory duty to award grant-funding for the operation of the IWE. The Grantee is principally responsible for sub-contracting and supervising the work of regionally-based Resource Specialists. It is the Resources Specialists who statewide provide Iowans a range of services for diverting from Iowa landfills the most tons of by-products and excess materials possible, as well as managing and reducing waste streams, and enhancing pollution prevention.

**Original Selection Process Summary:** In early 2018, a Request for Proposals (RFP) was posted on the Dept. of Administrative Services "State of Iowa Bid Opportunities" web-page, and a notification e-mail was sent to the Community Colleges and to the Iowa Association of Regional Councils of Governments. One proposal was received for consideration, and a three-person committee reviewed and evaluated it. The committee then met to discuss the proposal, and achieved consensus on the selection of Region XII Council of Governments to provide the services needed due to the quality of their proposal, understanding of Department goals of the program, and the experience members of their team possess.

**Grant agreement History:**

**Original Grant agreement Terms:** Amount \$ 468,000; Timeframe: July 1, 2018 to June 30, 2019; Purpose: to fulfill the DNR's statutory duty to award grant-funding for the operation of the Iowa Waste Exchange.

**Amendments:** *this is the first Amendment to this Grant Agreement*

Bill Blum, program planner, Land Quality Bureau  
Environmental Services Division  
June 18, 2019

Attachment: Grant Agreement Statement of Work



## STATEMENT OF WORK

The Iowa Waste Exchange (IWE) Grantee is principally responsible for the work of regionally-based Resource Specialists who provide to Iowa businesses, schools, hospitals, government institutions, industries, and individuals a range of services for diverting by-products and excess materials from Iowa landfills, managing and reducing waste streams, and enhancing pollution prevention.

The Grantee shall perform the following Tasks by the Task Milestone Dates set out in the following table:

Deliverables	Task Milestone Dates
<p><b>Task 1:</b> Recruit and subcontract IWE Resource Specialists.</p> <p><b>Description:</b> IWE program services should be delivered by approximately 4 to 5 Full-Time Equivalent positions operating in approximately 4 to 5 service regions to cover the entire state. IWE services are to be available statewide.</p> <ul style="list-style-type: none"> <li>• Particular attention is to be paid to prospective Resource Specialist’s qualifications related to: •technical competence, especially regarding solid waste management, •high productivity, •being team players, •interpersonal skills, and •customer focus.</li> <li>• All prospective Resource Specialist’s resumes and pre-interview evaluations are to be submitted to the DNR for review prior to commencing the interview process.</li> <li>• The DNR retains the right of final approval of all IWE Resource Specialist subcontracts.</li> </ul>	No later than July 1, 2018
<p><b>Task 2:</b> Direct and oversee IWE Resource Specialists’ work, and review and evaluate on-going performance.</p> <p><b>Description:</b> Assure that IWE Resource Specialists –</p> <ul style="list-style-type: none"> <li>• Actively search for the generators and the users of excess materials and by-products, and facilitate the matching and transfer of excess materials and by-products between generators and users.</li> <li>• Establish working relationships with excess materials and by-products generator and user clients by:</li> <li>• Responding to written or telephone requests for information or technical assistance on a variety of waste management issues no more than 2 business days after receiving each request</li> <li>• Conducting ‘walk-through’s of customer facilities to identify opportunities for improving waste management and pollution prevention</li> <li>• Working with solid waste agencies to help them meet their waste diversion goals</li> <li>• Identifying client needs and accessing the team of experts including each other, the Iowa Economic Development Authority (IEDA), the Iowa Waste Reduction Center (IWRC), and the DNR to help meet those client needs</li> <li>• Focus on obtaining the greatest <u>reduction</u> in by-product generation and the landfilling of excess materials. Priorities, in no particular order, are: <ul style="list-style-type: none"> <li>• Old corrugated containers and kraft bags</li> <li>• Demolition/renovation/construction debris</li> <li>• Renewable energy by-products</li> <li>• Industrial by-products/materials</li> <li>• Food &amp; food processing residuals</li> <li>• Mixed recyclable paper</li> <li>• Non-treated wood</li> <li>• Compostable paper</li> <li>• Hazardous materials</li> <li>• Plastic film/wrap/bags</li> </ul> </li> <li>• Deliver a new comprehensive approach to helping schools minimize waste and implement recycling. In conjunction with the DNR, IWRC and IEDA support, IWE Resource Specialists will:</li> <li>• Develop a survey and methods to obtain data from as many as possible of the approximately total 1,524 public and private Iowa schools.</li> <li>• Establish waste reduction/sustainability contacts at the schools according to the respective IWE service areas.</li> <li>• Conduct surveys with the contacts using a variety of means, including — online correspondence, telephone calls, onsite visits, and through interested third parties (haulers/contractors).</li> <li>• Compile and document the data.</li> <li>• Analyze and evaluate the data in order to establish school waste reduction focus areas.</li> <li>• Based on the waste reduction focus areas, plan and implement waste minimization and recycling projects and programs in Iowa’s schools.</li> <li>• Enter performance data and complete bi-weekly updates in the IWE database.</li> </ul>	On-going, over the course of the Grant
<p><b>Task 3.</b> Support program communications and on-site contacts.</p>	On-going,

<p><b>Description:</b> Make available to all IWE Resource Specialists:</p> <ul style="list-style-type: none"> <li>• a cell phone</li> <li>• Internet service</li> <li>• a secure wireless laptop computer, tablet computer or other electronic means to maintain contact with other services providers while in the field and to provide timely assistance to program customers</li> <li>• Compensation for in-Iowa travel.</li> </ul>	over the course of the Grant
<p><b>Task 4.</b> Require attendance of all Resource Specialists at four quarterly meetings.</p> <p><b>Description:</b> Items covered to include:</p> <ul style="list-style-type: none"> <li>• progress on quarterly objectives</li> <li>• roundtable discussion of issues concerning excess materials and by-products matches</li> <li>• professional development training</li> </ul>	Within 3 weeks of the end of each fiscal quarter
<p><b>Task 5.</b> Meet with the DNR to discuss contractual progress.</p> <p><b>Description:</b> Items covered to include:</p> <ul style="list-style-type: none"> <li>• Resource Specialists' performance,</li> <li>• budget items,</li> <li>• progress on goals,</li> <li>• primary duties listed in this RFP and other items as needed,</li> <li>• Coordination and tracked delivery of additional projects &amp;/or programs as new challenges and opportunities develop.</li> </ul>	When requested
<p><b>Task 6.</b> Track progress toward program goals.</p> <p><b>Description:</b> These include:</p> <ul style="list-style-type: none"> <li>• Diverting at least 100,000 tons of materials and by-products from landfills.</li> <li>• Completion of a combined minimum of 3,200 IWE client contacts, with tracking each Resource Specialist's both on-site visits to assist clients and in-house client assists.</li> <li>• On-site visits are in-person site visits to, and tours of, client facilities for purposes of offering assistance. A single client can be counted for multiple on-site visits, as long as each visit counted is a legitimate, new assistance initiative. An on-site visit does not include subsequent follow-ups by telephone, e-mail or letters relating to the initial on-site visit.</li> <li>• In-house assistance includes calls, e-mails and letters to clients to provide help with a specific market referral or other specific information. A client can be counted as in-house assistance multiple times for legitimate, new assistance initiatives. In-house assistance does not include subsequent assistance via telephone, e-mail or letter relating to the initial in-house assistance.</li> <li>• Submittal to the DNR of at least one IWE success story from each of the Service Areas per year.</li> </ul>	On-going, over the course of the Grant
<p><b>Task 7.</b> Direct the IWE Resource Specialists to use the special allocation in the Grant Award for publicity, promotion and marketing.</p> <p><b>Description:</b> As part of general program expectations, Grantee(s) and the IWE Resource Specialists will:</p> <ul style="list-style-type: none"> <li>• represent the DNR and its FABA programs in presentations on current waste management and pollution prevention programs and practices</li> <li>• share information on excess materials and by-products uses and markets via on-site visits, e-mail, phone calls, and at quarterly IWE meetings</li> <li>• advise clients on the services of the Iowa Waste Reduction Center, and provide referrals as appropriate</li> <li>• Complete other special promotion and information projects as directed or approved by the DNR.</li> </ul>	On-going, over the course of the Grant

**Iowa Department of Natural Resources  
Environmental Protection Commission**

# 15

**Decision Item**

**Contract with** the University of Northern Iowa, Iowa Waste Reduction Center (IWRC)

**Commission approval is requested for a contract with** the University of Northern Iowa, Iowa Waste Reduction Center (IWRC), of Cedar Falls, Iowa.

**Contract Terms:**

**Amount:** Not to exceed \$30,000

**Dates:** July 1, 2019 to June 30, 2010.

**Funding Source(s):** the Groundwater Protection Fund, Solid Waste Account where monies are received from the tonnage fee levied under Iowa Code section 455B.310.

**Statutory Authority:** Iowa Code section 455E.11(2)(a)(2)(c)

**Contract Background:**

Iowa Code section 455E.11(2)(a)(2)(c) Groundwater Protection Fund, states that:

The DNR shall expend not more than thirty thousand dollars of the moneys appropriated under this subparagraph division to contract with the Iowa Waste Reduction Center (IWRC) at the University of Northern Iowa to provide training and other technical services to the Iowa Waste Exchange program.

**Contract Purpose:**

The purpose of this contract is for the IWRC to provide technical assistance, database management and training to the Iowa Waste Exchange program and its Representatives.

**Selection Process Summary:**

NOT Competitive, statement of authorization:

- STATUTE REQUIRED: Statute requiring contracting with the IWRC is Iowa Code section 455E.11(2)(a)(2)(c), as stated above in the Contract Background.

**Contract History:**

The DNR has entered into contracts with the IWRC on an annual basis since 1990. The purpose of the contracts with the IWRC is to provide technical assistance, database management and training to the Iowa Waste Exchange program and its Representatives. The most recent contracts have been the following:

Contract #1: Timeframe: 7/2014-6/2015; Amount \$30,000

Contract #2: Timeframe: 7/2015-6/2016; Amount \$30,000

Contract #3: Timeframe: 7/2016-6/2017; Amount \$30,000

Contract #4: Timeframe: 7/2017-6/2018; Amount \$30,000

Contract #5: Timeframe: 7/2018-6/2019; Amount \$30,000

Bill Blum, program planner, Land Quality Bureau  
Environmental Services Division  
June 18, 2019

Attachment: Contract Statement of Work

## STATEMENT OF WORK

The DNR's statutorily directed objective is for the Iowa Waste Reduction Center (IWRC) to provide technical assistance, and database maintenance and coordination for the Iowa Waste Exchange (IWE) program as approved by the DNR. The services included below may be amended at any time by the DNR or the IWRC upon prior approval by the DNR.

The IWRC will provide the following tangible products by the Task Milestone Dates set out in the following table:

Deliverables	Task Milestone Dates
<p><b>Task 1:</b> IWE database management:</p> <ul style="list-style-type: none"> <li>• Conduct database training for all new IWE Resource Specialists</li> <li>• Electronically update and distribute the IWE Handbook to the DNR and all IWE Resource Specialists</li> <li>• Update the IWE database based on requests from IWE Resource Specialists and from the DNR.</li> </ul>	On-going, over the course of the Contract
<p><b>Task 2:</b> Coordinate with the DNR and IWE Resource Specialists to provide K-12 schools with food waste audits and cafeteria waste sorts as requested. The IWRC will also coordinate with the DNR in the publishing of data and results from these joint assistance activities.</p>	When requested
<p><b>Task 3.</b> Provide technical assistance regarding hazardous materials/hazardous waste, and complete joint IWRC/IWE visits when requested. The IWRC will also refer clients to IWE Resource Specialists for assistance when applicable.</p>	On-going, over the course of the Contract
<p><b>Task 4.</b> IWE marketing assistance:</p> <ul style="list-style-type: none"> <li>• Assist with development of marketing plans and/or strategies</li> <li>• Collaboratively brainstorm ideas to meet IWE Resource Specialists' marketing goals</li> <li>• Develop contact lists for outreach</li> <li>• Promotion of IWE events, services, and materials through IWRC marketing outlets (website, newsletter, social media)</li> </ul>	On-going, over the course of the Contract
<p><b>Task 5.</b> Submit monthly reports that have a narrative discussion of the delivery of the assistance services outlined in Tasks 1 through 4. Monthly reports will also describe any other activities relevant to the DNR and/or IWE Resource Specialists.</p>	Within 3 weeks of the end of each month

CATEGORY	DNR FUNDS
PERSONNEL COSTS	\$27,777.78
INDIRECT COST CHARGES (8% of Personnel Costs)	\$2,222.22
TOTAL PROJECT COSTS	\$30,000.00

**Iowa Department of Natural Resources  
Environmental Protection Commission**

# 16

**Decision Item**

**Contract with Iowa Association of Soil Conservations District Commissioners, dba Conservation Districts of Iowa**

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**Commission approval is requested for a contract with** Iowa Association of Soil Conservations District Commissioners, dba Conservation Districts of Iowa, of Des Moines, Iowa.

**Contract Terms:**

**Amount:** Not to exceed \$119,736

**Dates:** July 1, 2019 to June 30, 2020.

**Funding Source(s):** Drinking Water State Revolving Fund Other Authorized Uses Set Aside from the US Environmental Protection Agency, USEPA Safe Drinking Water Act (SDWA), Catalog of Federal Domestic Assistance (CFDA) No. 66.468, through DNR Cost Center 7166.

**Statutory Authority:** 455B.103(3).

**Contract Background:** The Iowa Source Water Protection (SWP) Program is designed to assess and protect untreated ground water resources that are used as source water for public drinking water systems. Protecting drinking water at the source ensures the public has an adequate supply of safe drinking water and also helps reduce the cost of treatment to the water supply. The SWP Program relies heavily on partnerships with local, state, federal, private and non-profit conservation and agricultural entities for success. The purposes of these partnerships include gathering and sharing data, leveraging outside funds for best management practices (BMP's), and providing SWP education and BMP promotion through other existing programs.

**Contract Purpose:** The parties have entered into this Contract for the purpose of retaining the Contractor to employ two full-time staff, for a period of one year, to assist the DNR and selected Iowa communities in meeting the DNR's Source Water Protection goals through development and implementation of Phase 2 Source Water Protection Plans.

**Selection Process Summary:** **Intergovernmental** contracting with Iowa Association of Soil Conservations District Commissioners, dba Conservation Districts of Iowa, is authorized under 11 IAC 118.4. Contracts with state universities, other public agencies and governmental entities for laboratory work, scientific field measurement and environmental quality evaluation services necessary to implement Iowa Code Chapter 455B, are authorized under Iowa Code section 455B.103(3).

**Contract History:** This will be the third contract with this Contractor.

**Contract #2:** Timeframe: 7/1/2018 to 6/30/2019; Amount \$119,722.

**Contract #1:** Timeframe: 3/1/2017 to 2/28/2018; Amount \$119,722; Amendments: The original Contract was amended twice for time extensions only.

**Amendment 1:** the original Contract timeframe was from March 1, 2017 through February 28, 2018. Amendment 1 extended the Contract end date from February 28, 2018, to May 31, 2018.

**Amendment 2:** provided for a second extension for the end date of Contract #1, from May 31, 2018 to June 30, 2018, to move the contract to a state fiscal year schedule.

Jessica Montana, Environmental Program Supervisor and Source Water Protection Coordinator  
Field Services and Compliance Bureau, Environmental Services Division  
June 18, 2019

**Attachment: Statement of Work from the Special Conditions for the Contract**

**Section 5 STATEMENT OF WORK**

**5.1 Statement of Work.** Contractor shall perform the following Tasks by the Task Milestone Dates set out in the following table:

Deliverables	Task Milestone Date
<p><b>Task 1: Recruitment &amp; Hiring</b>  <b>Description:</b> The Contractor shall employ two full-time technical staff to complete Tasks #3-8. Each technical staff is expected to work 40 hours per week on projects described in Tasks 3 -8, unless they are in paid leave status for Holidays or PTO, as defined under Task 2. One technical staff shall be located in the DNR Field Office 3 in Spencer, Iowa, and one shall be located in the DNR Field Office 4 in Atlantic, Iowa.</p> <p>The Contractor shall coordinate with DNR to ensure the position descriptions as well as the work assignments of the two full-time technical staff conform with the DNR’s mission with regard to Source Water Protection (SWP) goals</p> <p>In the event one or both technical staff discontinues employment with the Contractor during the term of this Contract, the Contractor shall recruit and hire replacement technical staff, with input from the DNR Project Manager, the DNR Field Office 3 and Field Office 4 supervisors, or other DNR staff designated by the DNR Project Manager. The hiring process shall be completed within 60 days of the technical staff resignation date, unless the DNR Project Manager approves an extension to the 60-day period.</p>	<p>On-going</p>
<p><b>Task 2: Staff Oversight.</b>  <b>Description:</b> For technical staff hired to complete Tasks #3-8 under this Contract, the Contractor shall be responsible for providing:</p> <ul style="list-style-type: none"> <li>• Supervision;</li> <li>• Salary and Benefits - including timesheets and payroll;</li> <li>• Approval for leave - Holidays consistent with the State of Iowa holidays, and 15 days annual PTO that includes vacation and sick leave;</li> <li>• Regular Performance Evaluations, with input from DNR; and,</li> <li>• Review and approval or denial of staff training requests. Prior to approving technical staff travel time or travel expenses that are not directly related to Tasks #3-7, below, and that will be billed, in part or full, to DNR, the Contractor shall receive prior approval from the DNR Project Manager.</li> </ul> <p>For technical staff hired by the Contractor to complete Tasks #3-8 under this Contract, the DNR shall be responsible for providing resources to be used for SWP planning activities, in compliance with all applicable DNR and Department of Administrative Services (DAS) policies. DNR resources to be provided include:</p> <ul style="list-style-type: none"> <li>• Computer with DNR approved software;</li> <li>• Access to a DNR field office vehicle for SWP travel purposes, including a DNR fuel card and required mileage/fuel purchase tracking form;</li> <li>• Cell phone for SWP related use only;</li> <li>• Access to DNR network resources;</li> <li>• Email account;</li> <li>• Work space in the technical staff’s assigned DNR field office; and,</li> <li>• Access to technical staff’s assigned DNR field office during hours determined to be appropriate by the DNR Project Manager.</li> </ul>	<p>On-going</p>

<p><b>Task 3: Identify Potential Phase 2 SWP Planning Communities.</b></p> <p><b>Description:</b> Contractor shall identify and receive DNR approval of a Potential Phase 2 SWP Planning Communities list:</p> <ul style="list-style-type: none"> <li>• The Contractor's technical staff shall use the current list of Highly Susceptible Communities, provided by DNR, to develop and prioritize a list of communities within or near their respective Field Office area for potential Phase 2 SWP planning during the term of this Contract;</li> <li>• The Contractor shall provide their list of potential Phase 2 SWP communities to the DNR Project Manager, for DNR review and approval of each community. The Contractor shall not begin working with any community on their list until that community has been approved by the DNR;</li> <li>• The Contractor shall select no fewer than 14 DNR-approved communities from the list for Phase 2 SWP Plan development. Before beginning work with a selected community, the Contractor shall receive a letter of commitment from that community clearly stating its interest in and willingness to actively participate in and support source water protection activities; and,</li> <li>• If a community drops out of Phase 2 SWP planning activities, the Contractor shall work with the DNR Project Manager to select an alternative community to develop a Phase 2 SWP plan.</li> </ul>	<p>No later than July 20, 2019</p>
<p><b>Task 4: Provide Phase 2 SWP Planning Assistance and Facilitation.</b></p> <p><b>Description:</b> For each community selected in Task 3, the Contractor's technical staff shall provide Phase 2 SWP planning assistance and facilitation, <i>as outlined in DNR's, "Iowa Source Water Protection Guidebook,"</i> to include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Hold a preliminary planning meeting with DNR SWP staff and DNR technical staff to outline the overall requirements for the community, and to identify specific action items that may be necessary;</li> <li>• Identify or review Capture Zones - areas that are most likely to impact the quality of source water, including the surface water run-off area. Technical assistance will be available from DNR geologists and hydrogeologists for this part of the project;</li> <li>• Organize a local community Source Water Team (SWT) which will gather input from the community with regards to the Phase 2 SWP plan. The Contractor's technical staff shall involve local stakeholders in the process, including those who own property or manage property located within the capture zones;</li> <li>• Review existing Phase 1 Plan, and update information as needed, including an inventory of wells and contaminant sources within the capture zones. DNR records and staff may provide a portion of this information and the local SWT's knowledge of local history of the area may enhance the accuracy of the data;</li> <li>• Guide the SWT in the development of a Phase 2 SWP Plan. Development of the Phase 2 SWP Plan shall follow the DNR's guidance and utilize the, <i>"Iowa Source Water Protection Guidebook,"</i> process and plan requirements, and shall include the following:             <ul style="list-style-type: none"> <li>• Cover page;</li> <li>• SWT member list;</li> <li>• Action Plan;</li> <li>• Resources from local, state and federal entities, to be used by the SWT, when the community implements the plan;</li> <li>• GIS map of capture zone, indicating the Best Management Practice (BMP) previously installed or planned (including anticipated installation date);</li> <li>• An affidavit indicating that an updated Emergency Response Plan has been completed for the community;</li> <li>• A long-term SWT meeting schedule for on-going plan evaluation and updates based on municipal well(s) contamination levels, capture zone area land use and land management and well maintenance and construction, among other issues that may affect the success</li> </ul> </li> </ul>	<p>On-going, after the completion of Task 3.</p>

<p>of the plan; and,</p> <ul style="list-style-type: none"> <li>• An outline for anticipated implementation or follow-up to the practices detailed in the Phase 2 SWP Plan.</li> <li>• Submit the Phase 2 SWP Plan to the appropriate entity with community water supply authority for approval, and after the governing body has approved the plan, submit the plan to the DNR Project Manager for review and approval.</li> </ul>	
<p><b>Task 5: Coordinate Conservation Planning.</b>  <b>Description:</b> For each Phase 2 SWP Plan, the Contractor's technical staff shall coordinate with various entities, including but not limited to, local Natural Resources Conservation Service (NRCS) or Soil and Water Conservation District (SWCD) office for conservation planning assistance. This should include meeting with landowners and working with appropriate conservation organizations.</p>	<p>On-going</p>
<p><b>Task 6: Complete Phase 2 SWP Plans</b>  <b>Description:</b> The Contractor's technical staff shall complete no fewer than 14 Phase 2 SWP plans during the term of this Contract.</p> <p>If 14 Phase 2 SWP plans are not completed, the Contractor shall provide a written report to the DNR Project Manager explaining why all 14 Phase 2 SWP plans were not completed within this timeframe.</p> <p>If a community decides to opt out of completing a Phase 2 SWP Plan, the Contractor shall follow the process identified in Task 3 to request another community to work with in order to achieve the desired 14 completed Phase 2 SWP plans during the term of this Contract.</p>	<p>No later than June 30, 2020</p>
<p><b>Task 7: Educational Outreach</b>  <b>Description:</b> The Contractor's technical staff shall notify and receive prior approval from the DNR Project Manager when selecting written or verbal SWP-related materials and information for presentation to groups or organizations where that information will be represented as DNR policy, regulation or guidance. After SWP-related materials and information have been approved by the DNR Project Manager, the Contractor's technical staff may continue to provide those materials and information to groups or organizations for Phase 2 SWP-related presentations unless the DNR Project Manager notifies them otherwise.</p>	<p>On-going</p>
<p><b>Task 8: Submit Monthly Progress Reports to DNR</b>  <b>Description:</b> The Contractor's technical staff shall submit written monthly SWP project reports to the DNR Project Manager for review. The monthly reports shall:</p> <ul style="list-style-type: none"> <li>• Demonstrate the progress in completing Tasks #3-6 for the month being reported;</li> <li>• Provide Phase 2 SWP Project updates, for each of the 14 Phase 2 SWP projects, including the following information: <ul style="list-style-type: none"> <li>• The current status of the Project,</li> <li>• A detailed description of progress made since the last monthly report, and</li> <li>• The next steps to be taken toward completing the project during the term of this contract.</li> </ul> </li> <li>• Provide a brief summary of any education outreach provided to groups or organizations. The summary shall include location, date/time, number of attendees, and topics covered;</li> <li>• Provide a list of upcoming activities that are in support of Tasks 3-8; and</li> <li>• Provide a list of any training participated in during the month.</li> </ul> <p>The reports shall be submitted in a format agreed upon by the Contractor and the DNR Project Manager by July 15, 2019.</p>	<p>No later than: the 15th of each month, for the previous month, with the first report, for July 2019, due no later than August 15, 2019</p>



**7.3 Budget and Invoice Due Date.** The budget and invoice due date for this Contract shall be as follows:

Task	Amount of compensation allotted to Task	Invoice Due No Later Than
<p><b>Task 1 through Task 7:</b> Recruitment &amp; Hiring, Staff Oversight; Identify Potential Phase 2 SWP Planning Communities; Provide Phase 2 SWP Planning Assistance and Facilitation; Coordinate Conservation Planning; Complete 14 Phase 2 SWP Plans; and Educational Outreach.</p>	<p>Not to exceed \$119,736 per year, or \$9,978 per month. Expenses allowed shall be limited to:</p> <ul style="list-style-type: none"> <li>• Technical staff salaries and benefits for work time directly related to meeting the contract requirements set forth in Section 5, Statement of Work, above;</li> <li>• Technical staff travel and training expenses directly related to meeting the contract requirements set forth in Section 5, Statement of Work, above.</li> <li>• Travel expenses may include in-state personal vehicle mileage reimbursement for technical staff travel that is directly related to meeting the contract requirements only if: <ul style="list-style-type: none"> <li>• Personal mileage submitted for reimbursement excludes commuting miles (see Attachment A, for definition and examples of commuting miles);</li> <li>• Personal mileage is documented using <i>Attachment A: Personal Mileage Reimbursement Documentation Form</i>; and,</li> <li>• <i>Attachment A</i> is submitted with the pay period invoice.</li> </ul> </li> <li>• Payroll handling expenses not to exceed \$20.00 per month per employed technical staff;</li> <li>• Administrative fees not to exceed 10% of the sum of technical staff salaries and benefits, and technical staff travel and training expenses;</li> <li>• Other SWP project expenses that are clearly defined in scope and cost, are within the overall budget of this contract, and are pre-approved, in writing, by the DNR Project Manager.</li> </ul>	<p>Invoices shall be submitted to DNR no later than the last day of the month following the month for which payment is sought.</p>
<p><b>Task 8:</b> Submit Monthly Progress Reports to DNR.</p>	<p>\$0.00 Included in budget for Task 1 – Task 7, above.</p>	<p>Not applicable</p>
<p><b>Total</b></p>	<p><b>Not to exceed \$119,736.00</b></p>	

Environmental Protection Commission  
Iowa Department of Natural Resources

ITEM 17

DECISION

**TOPIC**      **Contract with the State Hygienic Laboratory for Manganese Environmental Monitoring and Laboratory Services**

**Recommendations:**

Commission approval is requested for a three year-service contract with the State Hygienic Laboratory at the University of Iowa. The contract will begin on July 1, 2019 and terminate on June 30, 2022. The total amount of this contract shall not exceed \$54,359.10.

**Funding Source:**

This contract will be funded through the EPA/IDNR DWSRF Non-Program income.

**Background:**

This contact is essential to Field Services Bureau and Water Quality Bureau's evaluation of Manganese in drinking water as it is an emerging contaminant and has been assigned health advisories (HA) by EPA. Scientific measurement of Manganese levels allows verification of compliance with the HA levels. Analyses include special Source Entry Point (SEP) tests for Manganese. Sampling, analysis and QA/QC practices must comply with EPA standard methods. SHL has the capability, capacity and protocols in place to provide analytical methods and QA/QC practices that comply with EPA standards. Contracting with SHL to perform the analyses also assures that test results are independent and objective.

**Purpose:**

The parties propose to enter into this Contract for the purpose of retaining the Contractor to provide: 3 years of laboratory testing of Manganese in drinking water.

**Contractor Selection Process:**

DNR is allowed to contract with the University of Iowa pursuant to Iowa Code section 455B.103.

**Contract History:**

None

Anne Lynam , Environmental Specialist Senior  
Water Quality Bureau, Water Supply Operations  
June 18, 2019

Attachment(s): Scope of Work from the Special Conditions for Contract

Contract 20ESDWQBALYNA-0001

Budget: 54,359.10

**Section 5 STATEMENT OF WORK**

**5.1 Statement of Work.** Contractor shall perform the following Tasks. Contractor shall complete its obligations under this Contract by the Task Milestone Dates set out in the following table.

Obligation	Task Milestone Date
<p><b>Task 1: Supply of Sample Containers and Return Shipping Labels</b></p> <p><b>Description:</b> SHL shall provide sample containers and return shipping labels for sample transport.</p>	<p>Sample containers and return shipping labels shall be provided by SHL as requested by Field Offices or County Public Health, and within a time frame agree upon by the Field Office or County Public Health and SHL at the time the request is made.</p>
<p><b>Task 2: Analyses of public water supply samples for Manganese</b></p> <p>Part 1. SHL shall conduct analyses of samples from public drinking water supplies to evaluate the presence and quantitative levels of Manganese. SHL shall analyze samples of finished water collected and submitted to SHL from public water supplies by (1) DNR ESD Field staff; (2) County Public Health staff from Scott, Black Hawk, Johnson, Linn and Cerro Gordo Counties, performing sanitary surveys with the assistance of DNR; and (3) certified operators who are assigned additional samples if not all Source Entry Points (SEPs) can be sampled during a sanitary survey. DNR ESD Field staff or County Public Health staff will identify the Source Entry Points (SEP(s)) to be sampled for Manganese. The analyses performed for each sample submitted shall be for the analyte, Manganese Metals by EP 200.7 or 200.8.</p> <p>Part 2. Sampling, analysis and QA/QC practices must comply with EPA standard methods. SHL shall perform all analyses in accordance with the applicable procedures and detection limits as specified in the Federal Register and the specific U.S. EPA method number. Quality control shall conform at a minimum to the standards listed in EPA Manual for the Certification of Laboratories Analyzing Drinking Water, Fifth Edition (EPA 815-R-05-004, January, 2005), and supplement 1 and 2; or alternative DNR/EPA-approved controls. SHL shall specify quantitation limits with each analytical result.</p> <p>Part 3. SHL shall provide copies of QA/QC information, Methods Manuals and Standard Operating Procedure Manuals (available from the laboratory) to DNR upon request.</p>	<p>Part 1: Analyses of samples shall be completed and results reported to the DNR submitter within 14 calendar days of receipt of samples unless analytical work warrants extra time. If the Contractor determines that extra time is needed to complete required analyses and reporting, then a written notification shall be made to the DNR submitter. The notification shall include the reason for the delay and the specific analysis or analyses to be delayed. The notification shall occur as soon as possible after the Contractor has determined the need for a delay. The notification shall include a revised completion date.</p> <p>Part 2. These requirements shall be ongoing throughout the term of the Contract.</p>

	<p>Part 3: SHL shall provide information and Manuals, as requested by DNR Field Offices, within a time frame agree upon by the DNR Field Office and SHL at the time the request is made.</p>
<p><b>Task 3: Training</b>  <b>Description:</b> SHL shall provide training for new DNR staff and shall provide refresher training for current DNR staff at the DNR’s request, for each State Fiscal Year covered by this contract. Training shall address the use of proper sampling techniques and containers, holding times, use of data sheets and chain of custody forms, and any other topic which DNR Field Office personnel and/or SHL staff indicate needs to be addressed.</p>	<p>Training shall occur annually or bi-annually, at the DNR’s discretion.</p>
<p><b>Task 4: Data Transfer</b>  <b>Description:</b> SHL shall make the data generated pursuant to this Contract available to DNR electronically through the State Hygienic Laboratory OpenELIS database web portal. Data shall be available for download by DNR staff in a mutually agreeable format. The available sample information shall include the STORET station identification number, which will be provided by DNR for all station locations. Data shall be retrievable via the web portal by DNR staff.</p> <p>Analytical reports may be retrieved electronically by DNR staff having the appropriate authorization. SHL shall assist DNR staff in obtaining appropriate authorization when requested.</p> <p>When accessing electronic data, the following information is required:</p> <ul style="list-style-type: none"> <li>• SHL OpenELIS/Telcor Organization ID number : (to be provided by SHL)</li> <li>• SHL Project Code: (to be provided by SHL)</li> </ul> <p>Also, SHL shall enter all analytical results into the State Drinking Water Information System (SDWIS). SHL shall report results within 24 hours of the completion of analysis by email to the DNR and to the submitter (if the submitter is not DNR) of any sample that is above the Manganese Health Advisory of 0.3 mg/L. SHL shall use the contaminant identification number of 1032 for Manganese.</p>	<p>Analytical chemistry data shall be made available to DNR staff no later than 15 calendar days following the end of the month of collection. If the Contractor determines that extra time is needed to complete required analyses, then a written notification shall be made to the DNR Contract Manager. The notification shall include the reason for the delay and the specific analytical chemistry data requiring delayed reporting. The notification shall occur as soon as possible but not later than 15 days following receipt of the sample. The notification shall include a revised completion date.</p> <p>Entering the data into SDWIS shall occur by the seventh day of the month following the month in which the samples were analyzed, except that samples received within the last week of the month that are unavailable by the seventh day of the month shall be transmitted within three working days of sample release.</p>

**Table 2: Contract Budget and Submission of Invoices**

<b>Task*</b>	<b>Total Amount of compensation allotted to Task** (Variable *** Payment)</b>	<b>Invoice Due No Later Than:</b>
<b>Task 1: Supply of Sample Containers and Return Shipping Labels</b>	No greater than \$17,896.00 for entire term of contract, and no greater than \$5,320.00 for each State Fiscal Year (2020 and 2022) and 7,256.00 for state Fiscal Year (2021), at the maximum shipping rate of \$8.00 per shipment. Shipping rates may be less when samples are combined for shipping.	Part 1: Within fourteen (14) calendar days of receipt of the sampling request information from DNR.  Part 2. By the end of the month following the month in which Task was performed.
<b>Task 2: Analyses of public water supply samples for Manganese</b>	No greater than \$32,436.50 for entire term of contract, and no greater than \$9642.50 for each State Fiscal Year (2020 and 2022) and 13151.50 for State Fiscal Year (2021), at the rate of \$14.50 per sample.	By the end of the month following the month in which the Task was performed.
<b>Task 3: Training</b>	No Charge	No Charge
<b>Task 4. Data Transfer</b>	No Charge	No Charge
Sub-totals per State Fiscal Year	SFY2020: \$ 14,962.50 SFY2021: \$ 20,407.50 SFY2022: \$ 14,962.50	
Facilities and Administrative Costs per State Fiscal Year @ 8%	SFY2020: \$ 1,197.00 SFY2021: \$ 1,632.60 SFY2022: \$ 1,197.00	
<b>Total</b>	<b>Not to exceed State Fiscal Year Budgets:</b> SFY2020: \$ 16,159.50 SFY2021: \$ 22,040.10 SFY2022: \$ 16,159.50 ----- <b>Not to Exceed Contract Grand Total: \$54,359.10</b>	

\*Payment for completion of Tasks where specific payment is allotted shall be dependent upon the timely completion of corresponding items required by Tasks where no specific payment is allotted.

\*\*Payment also shall conform to any pricing Tables contained in this Contract and referenced in the Budget Table above; or to the relevant SHL Pricing Table.

\*\*\*"Variable payment" shall mean that the number of specific analyses per Task may vary, and the Contractor shall be paid only for the number of specific analyses performed per Task. "Fixed payment" shall mean that the Contractor shall be paid an amount that is fixed in the Contract, with no variations based on analyses per Task actually performed

**Environmental Protection Commission  
Iowa Department of Natural Resources**

**ITEM****18****DECISION****TOPIC****2020 Contract with Linn County Air Quality Division: Air Pollution Control in Linn County****Recommendations**

Commission approval is requested for a one year-service contract with the county government of Linn County; Cedar Rapids, Iowa. The contract will begin on July 1, 2019, and terminate on June 30, 2020. This contract is an Iowa Code Chapter 28E contract.

**Purpose**

The parties propose to enter into this contract to specify the extent and manner of cooperation between the two agencies in conducting programs for the abatement, control, and prevention of air pollution within Linn County. Particular emphasis is placed on fulfilling the requirements of the federal Clean Air Act Amendments of 1990 (CAAA) through the collection and assessment of information regarding air quality, the permitting of sources of air emissions, the enforcement of emission limits, and the attainment and maintenance of ambient air quality standards. A summary the contract obligations is provided in the attached Summary of Obligations.

**Funding Sources**

The statutory authority for the DNR to enter into this contract is Iowa Code §455B.145. The total amount of this contract shall not exceed **\$777,515**. This contract will be funded by cost reimbursable payment from the following funding sources:

<b>Funding Source</b>	<b>Not to Exceed</b>
Title V Application Fees	\$50,486
Title V Emissions Fees	\$548,224
Prevention of Significant Deterioration (PSD) Application Fees	\$38,155
CAAA §105 federal grant dollars	\$123,150
CAAA §103 federal grant dollars	\$17,500

In addition, Linn County has agreed to a funding commitment of \$313,517 from local funding sources. The complete Programmatic Budget included in the contract is attached.

**Background**

Under Iowa Code §455B.134(11) and Iowa Code §455B.144 local political subdivisions are able to address air quality problems in their jurisdictions and can establish their own rules. Linn County had a local program, including ordinances and enforcement, in place prior to the DNR's delegation from EPA for an air program.

As specified in Iowa Code §455B.145 and 567 Iowa Administrative Code (IAC) Chapter 27, the Linn County Air Quality Division meets the conditions necessary to retain a local program. As established under the requirements of this contract, the Linn County Air Quality Division is responsible for the ongoing implementation of an air program within their county.

**Contractor Selection Process:**

The DNR is allowed to contract with Linn County without using a competitive selection process pursuant to state law, including 11 IAC 118.4.

**Contract History:**

Records indicate that DNR has been contracting with Linn County for implementation of an air program within Linn County since at least 1992. The contract is re-negotiated annually with Linn County to provide services that allow for the ongoing implementation of an air program. In comparison to last year (SFY 2019), the contract currently being requested for approval has the same scope of work. The total contract amount for SFY 2020 is \$38,455 more than SFY 2019 primarily due to expected cost increases for activities funded with Title V emissions fees and in PSD application fees.

In 2016, 567 Iowa Administrative Code Chapter 30 established fee rules and required the establishment of a fee structure by the DNR. As in 2019, applicants of Title V permits and PSD permits will be billed by the DNR at the rate established in the DNR fee schedule and Linn County will then be reimbursed by the DNR for their work on the project. Linn County has implemented their own fee structure for major and minor source construction permit applications; these fees are used by Linn County to assist with their required funding commitment.

Christine Paulson  
Environmental Specialist Senior  
Air Quality Bureau – Environmental Services Division  
June 18, 2019

### Summary of Obligations.

The following is a summary of the obligations the Local Program shall complete to meet tasks identified in this Contract. If tasks in the Summary of Obligations and the Special Conditions are inconsistent then the language of the Special Conditions shall take precedence.

Obligation	Reference	Task Milestone Date
<b>General Provisions</b>		
Personnel Commitment	5A.1(1)	Ongoing
Key Personnel	5A.1(2)	Ongoing
Training	5A.1(3)	Ongoing
Program Activity Summary	5A.1(4)(a)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Training Summary	5A.1(4)(b)	Annually: July 31, 2020
Personnel Changes	5A.1(5)(a)	10 days from effective date
New Personnel Report	5A.1(5)(b)	10 days from start date
Fiscal Reporting	5A.2	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Convene Fee Advisory Groups	5A.3(1)	Prior to January 15, 2020
Proposed Budget	5A.3(1)	January 15, 2020
Personnel Plan	5A.3(2)	January 15, 2020
Initial Contract Review	5A.3(3)	March 15, 2020
Final Contract Review	5A.3(4)	April 30, 2020
Website – Review & Update As Needed	5A.4(1)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Routine Rule Revision	5A.5	As agreed upon by parties
MBE/WBE	5A.6	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Intergovernmental Cooperation	5A.7(1)-(11)	As requested & agreed upon by parties
Attend Fee Advisory Groups	5A.7(8)	As scheduled by DNR
<b>Construction Permitting Provisions</b>		
Source Review	5B.1(1)	Ongoing
Permit Issuance	5B.1(2)	Ongoing
Draft Permit Review	5B.1(3)	Prior to Issuance
Permit Transfer	5B.1(4)	Upon Receipt
Permit/Modeling Procedure Utilization	5B.2	Ongoing
PSD Activities	5B.3	Ongoing
Proposed Final PSD permit	5B.3(1)	180 days after final application receipt
Pre-Application Protocol	5B.4	Ongoing
Receipt of 80% PSD pre-application	5B.4(1)(a)	2 weeks prior to pre-meeting
Copy of PSD pre-application to DNR & EPA	5B.4.(1)(b)	10 days prior to pre-meeting or after receipt of 100% application
Review Pre-Application Materials	5B.4(2)	Ongoing
PSD Application Review	5B.5	Ongoing
Denial of Permit Application	5B.5(1)(b)	As soon as possible
Prepare Draft PSD Permit	5B.6	Ongoing
Fact Sheet	5B.6(2)	Ongoing
Electronic Copy of Draft PSD permit	5B.6(3)	Prior to facility review
Permit Review by EPA	5B.7(1)	10 days prior to public comment
Public Notice & Participation	5B.7(2)	Ongoing
Changes to Draft Permit	5B.8(1)	Ongoing
Proposed Final PSD to DNR	5B.8(2)	Ongoing
Response to Comment	5B.8(4)(a)	Ongoing
BACT Data	5B.8(4)(b)	Within 30 days after permit issuance



Obligation	Reference	Task Milestone Date
<b>Construction Permitting Provisions (cont'd)</b>		
Final PSD Permit to EPA	5B.8(4)(c)	After DNR Issuance
PSD Permit Modifications	5B.8(9)	Ongoing
Excel Report	5B.10	Semi-Annual: January 31, 2020, July 31, 2020
<b>Title V Permitting Provisions</b>		
Two (2) initial/renewal permits	5C.1(1)	June 30, 2020
Issuance Schedule	5C.1(1)(a)	May 15, 2020
Completeness Determination	5C.2(1)	60 days after receipt
Application Processing	5C.2(2)	Ongoing
Denial of Permit Application	5C.2(2)(b)	As soon as possible
Permit Drafting Procedures	5C.3	Ongoing
Fact Sheet	5C.3(2)	Ongoing
Draft Permit Review	5C.3(3)	Prior to Facility Review
Permit Review by EPA	5C.4(1)	Start of Public Comment Period
Affected States Review	5C.4(2)	Start of Public Notice
Public Notice & Participation	5C.4(3)	Ongoing
Response to Comments	5C.4(3)(e)	Ongoing
Changes to Draft Permit	5C.5(1)	Ongoing
Proposed Final Title V to DNR	5C.5(2)	Ongoing
Final Title V Permit to EPA	5C.5(3)	Within 30 days of DNR Issuance
Title V Renewals	5C.6	Ongoing
Reopening Issues Title V Permits	5C.7	Ongoing
Permit Changes	5C.8	Ongoing
Status Reports	5C.9	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
<b>Compliance Provisions</b>		
Compliance Activities	5D.1	Ongoing
Notice of Violation	5D.1(2)(a)-(b)	Within 60 days
Electronic Compliance Schedules	5D.1(3)	Ongoing
Minimum 1 Joint Stack Test	5D.2	July 1, 2020
Inspection Schedule	5D.3(1)	Ongoing
Joint Inspection Documents	5D.3(2)	Provided prior to each inspection
Joint Inspection Report	5D.3(2)	30 days following each
Variances	5D.4	Ongoing
Training Fire Permits	5D.4(2)	DNR copied at time of issuance
CMS Plan	5D.5(1)	September 3, 2019
ICIS Reporting	5D.5(2)	15 days following reported month
Summary of Facility Actions	5D.5(2)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Compliance Quarterly Report	5D.5(3)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Emission Test Results	5D.6	Report to EPA (ICIS)
<b>Ambient Air Monitoring Provisions</b>		
Existing Network Operations	Table 2	Ongoing
Add Teledyne T640 PM 2.5 FEM Monitor	Table 3	9/1/2019 (unless equipment is obtained in SFY 2019)
Unscheduled Network Modifications	5E.1(1)(a)	Upon Request
Final Equipment List	5E.1(2)(a)	July 2, 2019
Monitoring Sites	5E.1(3)	Ongoing
Daily Polling	5E.1(4)	Ongoing
High Concentration Reports	5E.1(5)	Ongoing
Quality System Implementation	5E.2(1)	Ongoing

Obligation	Reference	Task Milestone Date
<b>Ambient Air Monitoring Provisions (cont'd)</b>		
Revised QA Documents	5E.2(2)	Within 40 working days
SO <sub>2</sub> or PSD Sites	5E.2(3)	Within 30 days of request
Annual Network/Quality Assurance Review	5E.2(5)	March 16, 2020
Training & Safety Plan	5E.3(1)	Ongoing
Coordination Meetings	5E.3(2)	Quarterly as scheduled
Equipment Inventory List	5E.3(3)	7 days after request
List of equipment to maintain & operate existing network	5E.3(4)(a)(1)	January 15, 2020
Equipment Replacement Schedule	5E.3(4)(a)(2)	January 15, 2020
List equipment to expand network (next Contract)	5E.3(4)(b)	March 16, 2020
Network Modifications	5E.3(5)	Ongoing
Data Validation	5E.4(1)	Ongoing
Site Setup & Closure	5E.4(2)	Ongoing
AQS/PARS Data Submission	5E.4(3)	15 days following reported month
Data Screening	5E.4(4)	Ongoing
Monthly AQS Recordkeeping Requirements	5E.4(5)(a)	Monthly
Quarterly AQS Recordkeeping Requirements	5E.4(5)(b)	Quarterly
Real-time Monitoring	5E.4(6)	Ongoing
Toxics Monitoring	5E.4(7)	Ongoing
Exceedence Report	5E5(1)	Immediate
Weekly Network Status Report	5E.5(2)	Weekly – 1 <sup>st</sup> working day
Monthly Continuous Monitor Report	5E.5(3)	15 working days following reported month
Monthly Report: SHL-PM FRM Monthly Report: SHL-Air Toxics Monthly Report: SHL-Speciation	5E.5(4)	20 working days after receipt from outside contractor
Monthly Equipment Procurement Report	5E.5(5)	15 working days following reported month
Qtrly Monitoring Report (Continuous & Non-Continuous)	5E.5(6)	Quarterly: November 15, 2019, February 15, 2020, May 15, 2020, August 15, 2020
Zero-air testing	5E.6(1)	Semi-annually: January 31, 2020, July 31, 2020
Computer audit (security & adequacy of backup)	5E.6(2)	September 3, 2019
Install two new Purple Air Monitors with Inlet Heaters at Health Dept. Site	5E.6(3)	January 1, 2020
Thermo 146 IQ Calibrator Training	5E.6(4)	November 1, 2019
<b>Monitoring and Review</b>		
Reporting Provisions	6.3	Ongoing
<b>Compensation</b>		
Invoice Submission	7.5	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Unmet Obligations	7.5(2)	With Quarterly Invoices as Needed
Billable Hour Documentation	7.5(2)(b)	With Quarterly Invoice as Needed

## Programmatic Budget

Program		Funding Source									
	FTE	Total	County Annual Fee	County General Fund	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Estimated PSD Application Fee	Estimated Title V Application Fee
<b>Title V Operating Permits</b>											
Application Review & Permit Issuance	0.25	\$32,726							\$0		\$32,726
Management, Secretarial & Data Support	0.04	\$5,517							\$0		\$5,517
Travel/Training	0.06	\$9,913							\$0		\$9,913
Supplies		\$739							\$0		\$739
Other		\$1,591							\$0		\$1,591
<b>Title V Operating Permit Subtotal</b>	<b>0.35</b>	<b>\$50,486</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$50,486</b>
<b>Major Source Construction Permitting</b>											
Application Review & Permit Issuance	1.00	\$125,567	\$11,603			\$113,964					
Modeling	0.05	\$6,457	\$597			\$5,861					
Management, Secretarial & Data Support	0.06	\$8,523	\$788			\$7,736					
Travel/Training	0.13	\$19,344	\$1,787			\$17,556					
Supplies		\$1,182	\$109			\$1,073					
Other		\$2,545	\$235			\$2,310					
<b>Major Source C. Permitting Subtotal</b>	<b>1.24</b>	<b>\$163,618</b>	<b>\$15,119</b>		<b>\$0</b>	<b>\$148,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>PSD Permitting</b>											
Application Review & Permit Issuance	0.15	\$20,673								\$20,673	
Modeling	0.05	\$6,457								\$6,457	
Management, Secretarial & Data Support	0.03	\$4,262								\$4,262	
Travel/Training	0.04	\$5,832								\$5,832	
Supplies		\$295								\$295	
Other		\$636								\$636	
<b>PSD Permitting Subtotal</b>	<b>0.27</b>	<b>\$38,155</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$38,155</b>	<b>\$0</b>

**Programmatic Budget (con't)**

Program		Funding Source										
		FTE	Total	County Annual Fee	County General Fund	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Estimated PSD Application Fee	Estimated Title V Application Fee
<b>Minor Source Construction Permitting</b>												
Application Review & Permit Issuance	1.20	\$126,497	\$52,699	\$31,458	\$17,476			\$24,864				
Modeling	0.05	\$6,457	\$2,690	\$1,606	\$892			\$1,269				
Management, Secretarial & Data Support	0.04	\$5,517	\$2,298	\$1,372	\$762			\$1,084				
Travel/Training	0.10	\$12,279	\$5,116	\$3,054	\$1,696			\$2,414				
Supplies		\$1,182	\$492	\$294	\$163			\$232				
Other		\$2,545	\$1,060	\$633	\$352			\$500				
<b>Minor Source Construct Permitting Subtotal</b>	<b>1.39</b>	<b>\$154,477</b>	<b>\$64,356</b>	<b>\$38,417</b>	<b>\$21,341</b>	<b>\$0</b>	<b>\$0</b>	<b>\$30,364</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Core Program Activities</b>												
Program Development	0.50	\$64,780	\$0	\$5,963				\$3,519	\$55,297			
Compliance Assistance & Enforcement - Minor	0.55	\$55,953						\$55,953				
Compliance Assistance & Enforcement - Major	1.10	\$111,515							\$111,515			
Management, Secretarial & Data Support	0.08	\$10,530		\$969				\$572	\$8,989			
Travel/Training	0.08	\$12,940	\$0	\$1,191				\$703	\$11,046			
Supplies		\$1,330	\$0	\$122				\$72	\$1,135			
Other		\$2,864	\$0	\$264				\$156	\$2,444			
<b>Core Program Activities Subtotal</b>	<b>2.30</b>	<b>\$259,912</b>	<b>\$0</b>	<b>\$8,510</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$60,975</b>	<b>\$190,426</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Programmatic Budget (con't)

Program	Funding Source										
	FTE	Total	County Annual Fee	County General Fund	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Estimated PSD Application Fee	Estimated Title V Application Fee
<b>Ambient Monitoring Activities</b>											
Ambient Monitoring Field Operations	1.85	\$183,411	\$8,089				\$8,195	\$14,896	\$152,231		
AAM Supervision	0.30	\$38,270	\$1,688				\$1,710	\$3,108	\$31,764		
Quality Assurance	0.70	\$62,373	\$2,751				\$2,787	\$5,066	\$51,769		
Management, Secretarial & Data Support	0.06	\$7,130	\$314				\$319	\$579	\$5,918		
Travel/Training	0.15	\$21,311	\$940				\$952	\$1,731	\$17,688		
Supplies		\$1,772	\$78				\$79	\$144	\$1,471		
Other		\$3,818	\$168				\$171	\$310	\$3,169		
Equipment		\$74,501	\$2,227				\$2,257	\$4,101	\$65,916		
Engineering & Scientific Equipment		\$40,000	\$706				\$715	\$1,299	\$37,280		
Repair & Maintenance of Equipment		\$15,501	\$683				\$693	\$1,259	\$12,866		
Lab Supplies		\$19,000	\$838				\$849	\$1,543	\$15,770		
Monitoring Site Lease		\$5,100	\$225				\$228	\$414	\$4,233		
Monitoring Utilities		\$18,000	\$794				\$802	\$1,462	\$14,942		
Vendor Training		\$8,700	\$0				\$0	\$0	\$8,700		
One Time Allocation		\$0	\$0				\$0	\$0	\$0		
Other		\$0	\$0				\$0	\$0	\$0		
<b>Ambient Monitoring Activities Subtotal</b>	<b>3.06</b>	<b>\$424,386</b>	<b>\$17,274</b>			<b>\$0</b>	<b>\$17,500</b>	<b>\$31,811</b>	<b>\$357,801</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Linn County Budget</b>	<b>8.60</b>	<b>\$1,091,032</b>	<b>\$96,749</b>	<b>\$46,927</b>	<b>\$21,341</b>	<b>\$148,500</b>	<b>\$17,500</b>	<b>\$123,150</b>	<b>\$548,224</b>	<b>\$38,155</b>	<b>\$50,486</b>

**Environmental Protection Commission  
Iowa Department of Natural Resources**

**ITEM****19****DECISION****TOPIC****2020 Contract with Polk County Air Quality Division: Air Pollution Control in Polk County****Recommendations**

Commission approval is requested for a one year-service contract with the county government of Polk County; Des Moines, Iowa. The contract will begin on July 1, 2019, and terminate on June 30, 2020. This contract is an Iowa Code Chapter 28E contract.

**Purpose**

The parties propose to enter into this contract to specify the extent and manner of cooperation between the two agencies in conducting programs for the abatement, control, and prevention of air pollution within Polk County. Particular emphasis is placed on fulfilling the requirements of the federal Clean Air Act Amendments of 1990 (CAAA) through the collection and assessment of information regarding air quality, the permitting of sources of air emissions, the enforcement of emission limits, and the attainment and maintenance of ambient air quality standards. A summary the contract obligations is provided in the attached Summary of Obligations.

**Funding Sources**

The statutory authority for the DNR to enter into this contract is Iowa Code §455B.145. The total amount of this contract shall not exceed **\$876,511**. This contract will be funded by cost reimbursable payment from the following funding sources:

<b>Funding Source</b>	<b>Not to Exceed</b>
Title V Application Fees	\$87,389
Title V Emissions Fees	\$604,930
CAAA §105 federal grant dollars	\$164,192
CAAA §103 federal grant dollars	\$20,000

In addition, Polk County has agreed to a funding commitment of \$373,761 from local funding sources. The complete Programmatic Budget included in the contract is attached.

**Background**

Under Iowa Code §455B.134(11) and Iowa Code §455B.144 local political subdivisions are able to address air quality problems in their jurisdictions and can establish their own rules. Polk County had a local program, including ordinances and enforcement, in place prior to the DNR's delegation from EPA for an air program.

As specified in Iowa Code §455B.145 and 567 Iowa Administrative Code (IAC) Chapter 27, the Polk County Air Quality Division meets the conditions necessary to retain a local program. As established under the requirements of this contract, the Polk County Air Quality Division is responsible for the ongoing implementation of an air program within their county.

**Contractor Selection Process:**

The DNR is allowed to contract with Polk County without using a competitive selection process pursuant to state law, including 11 IAC 118.4.

**Contract History:**

Records indicate that DNR has been contracting with Polk County for implementation of an air program within Polk County since at least 1992. The contract is re-negotiated annually with Polk County to provide services that allow for the ongoing implementation of an air program. In comparison to last year (SFY 2019), the contract currently being requested for approval has the same scope of work. The total contract amount for SFY 2020 is \$10,907 less than SFY 2019 primarily due primarily to expected reductions in Title V application fees.

In 2016, 567 Iowa Administrative Code Chapter 30 established fee rules and required the establishment of a fee structure by the DNR. As in 2019, applicants of Title V permits will be billed by the DNR at the rate established in the DNR fee schedule and Polk County will then be reimbursed by the DNR for their work on the project. Polk County has

implemented their own fee structure for major and minor source construction permit applications; these fees are used by Polk County to assist with their required funding commitment.

Christine Paulson  
Environmental Specialist Senior  
Air Quality Bureau – Environmental Services Division  
June 18, 2019

### Summary of Obligations

The following is a summary of the obligations the Local Program shall complete to meet tasks identified in this Contract. If tasks in the Summary of Obligations and the Special Conditions are inconsistent then the language of the Special Conditions shall take precedence.

Obligation	Reference	Task Milestone Date
<b>General Provisions</b>		
Personnel Commitment	5A.1(1)	Ongoing
Key Personnel	5A.1(2)	Ongoing
Training	5A.1(3)	Ongoing
Program Activity Summary	5A.1(4)(a)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Training Summary	5A.1(4)(b)	Annually: July 31, 2020
Personnel Changes	5A.1(5)(a)	10 days from effective date
New Personnel Report	5A.1(5)(b)	10 days from start date
Fiscal Reporting	5A.2	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Seek Board Approval to Convene Fee Groups	5A.3(1)	October 1, 2019
Convene Fee Advisory Groups	5A.3(1)	Prior to January 15, 2020
Proposed Budget	5A.3(1)	January 15, 2020
Personnel Plan	5A.3(2)	January 15, 2020
Initial Contract Review	5A.3(3)	March 16, 2020
Final Contract Review	5A.3(4)	April 30, 2020
Website – Review & Update As Needed	5A.4(1)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Rule Revision	5A.5	As agreed upon by parties
MBE/WBE	5A.6	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Intergovernmental Cooperation	5A.7(1)-(11)	As specified in the Contract and as requested & agreed upon by parties
Attend Fee Advisory Groups	5A.7(8)	As scheduled by DNR
<b>Construction Permitting Provisions</b>		
Source Review	5B.1(1)	Ongoing
Permit Issuance	5B.1(2)	Ongoing
Draft Permit Review	5B.1(3)	Prior to Issuance
Permit Transfer	5B.1(4)	Upon Receipt
Permit Referrals	5B.1(5)	Upon Receipt
Permit Coordination	5B.1(6)	Ongoing
Regulatory Determination	5B.1(6)(d)	Prior to Final Determination
Pre-Application Meeting	5B.1(6)(e)	As scheduled by DNR
Permit Issuance	5B.1(6)(f)	After DNR Issuance of Permit
Permit/Modeling Procedure Utilization	5B.2	Ongoing
Excel Report	5B.3	Semi-Annual: January 31, 2020, July 31, 2020
<b>Title V Permitting Provisions</b>		
Four (4) initial/renewal permits	5C.1(1)	July 1, 2020



Obligation	Reference	Task Milestone Date
<b>Title V Permitting Provisions (con't)</b>		
Issuance Schedule	5C.1(2)(a)	May 15, 2020
Completeness Determination	5C.2(1)	60 days after receipt
Denial of Permit Application	5C.2(2)(b)	As soon as possible
Application Processing	5C.2(2)	Ongoing
Permit Drafting Procedures	5C.3	Ongoing
Fact Sheet	5C.3(2)	Ongoing
Draft Permit Review	5C.3(3)	Prior to Facility Review
Permit Review by EPA	5C.4(1)	Start of Public Comment Period
Public Notice & Participation	5C.4(2)	Ongoing
Response to Comments	5C.4(2)(e)	Ongoing
Changes to Draft Permit	5C.5(1)	Ongoing
Proposed Final Title V to DNR	5C.5(2)	Ongoing
Final Title V Permit to EPA	5C.5(3)	Within 30 days DNR Issuance
Title V Renewals	5C.6	Ongoing
Reopening Issued Title V	5C.7	Ongoing
Permit Changes	5C.8	Ongoing
Status Reports	5C.9	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
<b>Compliance Provisions</b>		
Compliance Activities	5D.1	Ongoing
Notice of Violation	5D.1(2)(a)-(b)	Within 60 days
Electronic Compliance Schedules	5D.1(3)	Ongoing
Minimum 1 Joint Stack Test	5D.2	July 1, 2020
Inspection Schedule	5D.3(1)	Ongoing
Joint Inspection Documents	5D.3(2)	Provided prior to each inspection
Joint Inspection Report	5D.3(2)	30 days following each
Variances	5D.4	Ongoing
Burn Permits	5D.4(1)	DNR copy at time of issuance
Training Fire Permits	5D.4(2)	DNR copy at time of issuance
CMS Plan	5D.5(1)	September 3, 2019
ICIS Reporting	5D.5(2)	15 days following reported month
Summary of Facility Actions	5D.5(2)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Compliance Quarterly Report	5D.5(3)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Emission Test Results	5D.6	Report to EPA (ICIS)
<b>Ambient Air Monitoring Provisions</b>		
Existing Network Operations	Table 2	Ongoing
Network Modifications – Discontinue Health Dept. CO monitor	Table 3	January 1, 2020
Unscheduled Network Modifications	5E.1(1)(a)	Upon Request
Final Equipment List	5E.1(2)(a)	July 1, 2019
Monitoring Sites	5E.1(3)	Ongoing
Daily Polling	5E.1(4)	Ongoing
Real-time Monitoring	5E.1(5)	Ongoing

Obligation	Reference	Task Milestone Date
<b>Ambient Air Monitoring Provisions (con't)</b>		
High Concentration Reports	5E.1(6)	Ongoing
Quality System Implementation	5E.2(1)	Ongoing
Revised QA Documents	5E.2(2)	Within 40 working days
PSD Sites	5E.2(3)	Within 30 days of request
Annual Network/Quality Assurance Review	5E.2(5)	March 16, 2020
QA FTE Commitment	5E.2(6)	Ongoing
Coordination Meetings	5E.3(2)	Quarterly as scheduled
Equipment Inventory List	5E.3(3)	7 days after request
List of equipment to maintain & operate existing network	5E.3(4)(a)(1)	January 15, 2020
Equipment Replacement Schedule	5E.3(4)(a)(2)	January 15, 2020
List equipment to expand network (next Contract)	5E.3(4)(b)	March 16, 2020
Network Modifications	5E.3(5)	Ongoing
Data Validation	5E.4(1)	Ongoing
Site Setup & Closure	5E.4(2)	Ongoing
AQS/PARS Data Submission	5E.4(3)	15 days following reported month
Data Screening	5E.4(4)	Ongoing
Monthly AQS Recordkeeping Requirements	5E.4(5)(a)	Monthly
Quarterly AQS Recordkeeping Requirements	5E.4(5)(b)	Quarterly
Toxics Monitoring	5E.4(6)	Ongoing
Exceedance Report	5E.5(1)	Immediate
Weekly Network Status Report	5E.5(2)	Weekly – 1 <sup>st</sup> working day
Monthly Continuous Monitor Report	5E.5(3)	15 working days following reported month
Monthly Report: SHL-PM FRM Monthly Report: SHL-Air Toxics	5E.5(4)	20 days after receipt from outside contractor
Monthly Equipment Procurement Report	5E.5(5)	15 days following reported month
Qtrly Monitoring Report (Continuous)	5E.5(6)	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Computer audit (security and adequacy of backup)	5E.6(1)	September 3, 2019
Install two new Purple Air Monitors with Inlet Heaters at Health Dept. Site	5E.6(2)	January 1, 2020
Agilaire Training	5E.6(3)	November 1, 2019
<b>Monitoring and Review</b>		
Reporting Provisions	6.3	Ongoing
<b>Compensation</b>		
Invoice Submission	7.5	Quarterly: October 31, 2019, January 31, 2020, April 30, 2020, July 31, 2020
Unmet Obligations	7.5(2)(a)	With Quarterly Invoice as Needed
Billable Hour Documentation	7.5(2)(b)	With Quarterly Invoice as Needed

## Programmatic Budget

Program		Funding Source							
	FTE	Total	County Annual Fee	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Title V Application Fee
<b>Title V Operating Permits</b>									
Application Review & Permit Issuance	0.63	\$74,997						\$0	\$74,997
Management, Secretarial & Data Support	0.02	\$2,381						\$0	\$2,381
Travel/Training	0.02	\$2,381						\$0	\$2,381
Travel/Training (direct)		\$812							\$812
Supplies		\$1,091						\$0	\$1,091
Other		\$2,029						\$0	\$2,029
Indirect		\$3,698						\$0	\$3,698
<b>Title V Operating Permit Subtotal</b>	<b>0.67</b>	<b>\$87,389</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$87,389</b>
	FTE	Total	County Annual Fee	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Title V Application Fee
<b>Major Source Construction Permitting</b>									
Application Review & Permit Issuance	0.15	\$17,856			\$17,856				
Modeling	0.01	\$1,190			\$1,190				
Management, Secretarial & Data Support	0.05	\$5,952			\$5,952				
Travel/Training	0.05	\$5,952			\$5,952				
Travel/Training (direct)		\$361			\$361				
Supplies		\$485			\$485				
Other		\$902			\$902				
Indirect		\$1,435			\$1,435				
<b>Major Construction Permitting Subtotal</b>	<b>0.26</b>	<b>\$34,134</b>	<b>\$0</b>	<b>\$0</b>	<b>\$34,134</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Programmatic Budget (con't)

Program		Funding Source							
	FTE	Total	County Annual Fee	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Title V Application Fee
<b>Minor Source Construction Permitting</b>									
Application Review & Permit Issuance	0.90	\$107,138	\$66,426	\$40,713					
Modeling	0.02	\$2,381	\$1,476	\$905					
Management, Secretarial & Data Support	0.20	\$23,809	\$14,761	\$9,047					
Travel/Training	0.05	\$5,952.13	\$3,690	\$2,262					
Travel/Training (direct)		\$824	\$511	\$313					
Supplies		\$1,107	\$686	\$421					
Other		\$2,557	\$1,585	\$972					
Indirect		\$6,458	\$4,004	\$2,454					
<b>Minor Construction Permitting Subtotal</b>	<b>1.17</b>	<b>\$150,226</b>	<b>\$93,140</b>	<b>\$57,086</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
	FTE	Total	County Annual Fee	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Title V Application Fee
<b>Core Program Activities</b>									
Program Development	0.55	\$65,473	\$10,934				\$12,636	\$41,903	
Compliance Assistance & Enforcement - Minor	0.66	\$78,568	\$13,121				\$65,447		
Compliance Assistance & Enforcement - Major	0.66	\$78,568	\$13,121					\$65,447	
Local Program Permits	0.75	\$89,282	\$89,282						
Management, Secretarial & Data Support	0.90	\$107,138	\$17,892				\$20,678	\$68,569	
Travel/Training	0.15	\$17,856	\$2,982				\$3,446	\$11,428	
Travel/Training (direct)		\$3,171	\$530				\$612	\$2,029	
Supplies		\$4,262	\$712				\$823	\$2,728	
Other		\$9,295	\$1,552				\$1,794	\$5,949	
Vehicle replacement		\$0	\$0				\$0	\$0	
Indirect		\$20,257	\$3,383				\$3,910	\$12,964	
<b>Core Program Activities Subtotal</b>	<b>3.67</b>	<b>\$473,871</b>	<b>\$153,508</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$109,346</b>	<b>\$211,017</b>	<b>\$0</b>

## Programmatic Budget (con't)

Program		Funding Source							
	FTE	Total	County Annual Fee	County Minor CP App Fee	County Major (non-PSD) CP App Fee	103	105	Title V EI Fee	Title V Application Fee
<b>Ambient Monitoring Activities</b>									
Ambient Monitoring Field Operations	2.40	\$285,702	\$7,426			\$20,000	\$31,078	\$227,198	
Quality Assurance	0.68	\$80,949	\$6,476			\$0	\$8,095	\$66,378	
Management, Secretarial & Data Support	0.10	\$11,903	\$952			\$0	\$1,190	\$9,761	
Travel/Training	0.05	\$5,952	\$476				\$595	\$4,881	
Travel/Training (direct)		\$2,832	\$227				\$283	\$2,322	
Supplies		\$3,805	\$304				\$381	\$3,120	
Other		\$5,217	\$417				\$522	\$4,278	
Indirect		\$17,828	\$1,426				\$1,783	\$14,619	
Equipment		\$83,461	\$16,717			\$0	\$9,520	\$57,224	
Engineering & Scientific Equipment		\$44,000	\$8,841				\$5,400	\$29,759	
Repair & Maintenance of Equipment		\$22,165	\$4,424				\$2,314	\$15,427	
Data Processing Equipment		\$14,800	\$2,954				\$1,545	\$10,301	
Lab Supplies		\$2,496	\$498				\$261	\$1,737	
Site Needs (Misc. & Monitoring Utilities)		\$2,000	\$420				\$400	\$1,180	
Vendor Training		\$5,000	\$1,050				\$1,000	\$2,950	
One Time Allocation		\$0	\$0				\$0	\$0	
Other		\$0	\$0				\$0	\$0	
<b>Ambient Monitoring Activities Subtotal</b>	<b>3.23</b>	<b>\$504,649</b>	<b>\$35,891</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20,000</b>	<b>\$54,847</b>	<b>\$393,911</b>	<b>\$0</b>
<b>Total Polk County Budget</b>	<b>9.00</b>	<b>\$1,250,271</b>	<b>\$282,541</b>	<b>\$57,086</b>	<b>\$34,134</b>	<b>\$20,000</b>	<b>\$164,192</b>	<b>\$604,930</b>	<b>\$87,389</b>

**Environmental Protection Commission  
Iowa Department of Natural Resources**

**ITEM****20****DECISION****TOPIC**

**2020 Contract University of Northern Iowa – Iowa Air Emissions Assistance Program (IAEAP): Small Business Assistance Program**

**Recommendations**

Commission approval is requested for a one year-service contract with the University of Northern Iowa (UNI); Cedar Falls, Iowa. Services are to be provided by the Iowa Air Emission Assistance Program (IAEAP) of UNI's Iowa Waste Reduction Center (IWRC). The contract will begin on July 1, 2019, and terminate on June 30, 2020. This contract is an Iowa Code Chapter 28E contract.

**Purpose**

The parties propose to enter into this contract to outline UNI's activities and projects related to providing technical assistance to Iowa's small businesses. Particular emphasis is placed on providing general education and outreach to assist small businesses in determining and understanding their regulatory obligations, and training small businesses on how to complete and submit emissions inventories. A summary of the contract obligations is provided in the attached Summary of Obligations.

**Funding Source**

The statutory authority for the DNR to enter into this contract is under Section 507 of the Clean Air Act Amendments of 1990 (CAAA) and Iowa Code §455B.133(8)(a). This contract will be funded by cost reimbursable payments funded by Title V emissions fees. The total amount of this contract shall not exceed **\$153,804**. The budget for this contract is, as follows:

<b>EXPENDITURE CATEGORY</b>	<b>OVERALL TOTAL</b>
<b>Personnel/Benefits (Total) – Not to Exceed</b>	<b>\$139,016.00</b>
Personnel (FTE)	\$95,675.00
Benefits (FTE)	\$43,341.00
<b>Travel/Training (Total)</b>	<b>\$2,460.00</b>
Out of State	\$850.00
In State	\$1,610.00
<b>Other (Total)</b>	<b>\$936.00</b>
Printing	600.00
Software License Fee	\$336.00
<b>Indirect charges</b>	<b>\$11,393.00</b>
<b>Total Project Costs – Not to Exceed</b>	<b>\$153,804.00</b>

**Background**

The Small Business Assistance Program, which is mandated by the CAAA, provides technical and non-technical assistance to small businesses. This contract establishes the requirements of Iowa's technical assistance program.

**Contractor Selection Process**

The DNR is allowed to contract with the University of Northern Iowa without using a competitive selection process pursuant to state law, including 11 IAC 118.4.

**Contract History**

The Iowa Air Emission Assistance Program (IAEAP) was formally designated as the technical and compliance small business assistance provider in a State Implementation Plan revision that was submitted to and approved by the EPA in the early 1990s. The University of Northern Iowa's IAEAP has demonstrated itself to be an effective assistance provider to Iowa's small businesses. In comparison to last year (SFY 2019), the contract currently being requested for approval has the same scope of work. The total contract amount for SFY 2020 is \$3,014 more than SFY 2019 due to an expected increase in costs for providing professional and technical assistance.

Christine Paulson  
Environmental Specialist Senior  
Air Quality Bureau – Environmental Services Division  
June 18, 2019

### Summary of Obligations

The following is a summary of the obligations UNI shall complete to meet tasks identified in this Contract. If tasks in the Summary of Obligations and the Special Conditions are inconsistent then the language of the Special Conditions shall take precedence.

Obligation	Reference	Task Milestone Date
Personnel Commitment	5A.1(1)	Ongoing
Training	5A.1(2)	As Needed/Determined
Key Personnel	5A.1(3)	Ongoing
Key Personnel Changes	5A.1(3)	Within 10 business days
Maintain General and NESHAP Database	5A.(4)(1)-(2)	Ongoing, minimum of 3 years
Toll-free Number	5A.4(3)	Ongoing
Maintain Website	5A.4(4)	Ongoing
Address DNR Concerns	5A.5	Within 15 days
Documentation	5A.6	Ongoing
Intergovernmental Collaboration	5A.7	As Needed or Requested by DNR
Responsibilities of the DNR	5A.8	Ongoing
Notice of CAA Rights & Obligations	5B.1	Ongoing
Compliance Methods	5B.2	Ongoing
Modification Requests	5B.3	As Requested
Air Pollution Prevention	5B.4	Ongoing
Rule Development	5B.5	As Requested
Develop Compliance Assistance Tools	5B.6(1)	As Requested
Distribute Compliance Assistance Tools	5B.6(3)	Ongoing
Prioritization of NESHAP	5B.6(4)	As Requested
NESHAP Compliance Assistance Tools & Outreach	5B.6(4)	As Requested
Provide On-Site Audits	5B.6(5)	As Requested
MSEI Training	5B.7(1)	As Requested
MSEI Site Visit	5B.7(5)	As Determined
SLEIS Assistance	5B.7(6)	As Requested
Late Work Products	6.1(2)	No later than 10 days
Review Meetings	6.2(1)	Semi-annually
Task Force/Workgroup Participation	6.2(2)	As Determined
Outreach Meetings	6.2(3)	As Requested
Small Business Meetings/Event Participation	6.2(4)	Within 2 weeks of request
Equipment Reports	6.3(2)	Monthly, As Applicable
Special Reports	6.3(4)	As Requested



Obligation	Reference	Task Milestone Date
July Monthly Report	6.3(1)	August 15, 2019
MSEI Planning Meeting	5B.7	September 16, 2019
July Invoice	7.4	September 16, 2019
August Monthly Report	6.3(1)	September 16, 2019
August Invoice	7.4	October 15, 2019
September Monthly Report	6.3(1)	October 15, 2019
Update Online Dry Cleaning and Gasoline Bulk Plant Compliance Assistance Calendars for Download for 2020-2021	5B.6(4)c	October 31, 2019
Draft MSEI Training Proposal	5B.7	November 1, 2019
September Invoice	7.4	November 15, 2019
October Monthly Report	6.3(1)	November 15, 2019
October Invoice	7.4	December 16, 2019
November Monthly Report	6.3(1)	December 16, 2019
November Invoice	7.4	January 15, 2020
December Monthly Report	6.3(1)	January 15, 2020
Work Plan & Staffing Plan	5A.3(1)	January 31, 2020
Budget	5A.3(2)	January 31, 2020
Final Draft MSEI Training Proposal	5B.7	February 3, 2020
December Invoice	7.4	February 17, 2020
January Monthly Report	6.3(1)	February 17, 2020
January Invoice	7.4	March 16, 2020
February Monthly Report	6.3(1)	March 16, 2020
Initial Contract Review	5A.3(3)	April 1, 2020
February Invoice	7.4	April 15, 2020
March Monthly Report	6.3(1)	April 15, 2020
MSEI Training Completed	5B.7	April 30, 2020
Final Contract Review	5A.3(4)	May 15, 2020
SLEIS Primary Assistance	5B.7	May 15, 2020
March Invoice	7.4	May 15, 2020
April Monthly Report	6.3(1)	May 15, 2020
April Invoice	7.4	June 15, 2020
May Monthly Report	6.3(1)	June 15, 2020
Paint Tracker Program Update	5A.4(5)	Ongoing (to be completed in SFY 2021)
May Invoice	7.4	July 15, 2020
June Monthly Report	6.3(1)	July 15, 2020
Final Report	6.3(3)	July 31, 2020
Final/June Invoice	7.4	August 7, 2020

Iowa Department of Inspections and Appeals  
Administrative Hearings Division  
Wallace State Office Building, Third Floor  
502 East Ninth Street  
Des Moines, Iowa 50319

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HP Properties, LLC

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Appellant,

)

Case No. 19DNR0011

v.

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Department of Natural Resources,

)

Respondent.

)

**PROPOSED DECISION**

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This matter was set for hearing on May 23, 2019. At the hearing, the parties provided oral argument on their respective positions but mutually agreed no evidentiary presentation was necessary.

The parties each provided post-hearing briefs. Those have been reviewed.

#### **FINDINGS OF FACT**

HP Properties, LLC (“HP”), purchased a property in Polk County in 2014 that, unbeknownst to HP, was a former landfill. Concordantly, HP had certain environmental responsibilities that it was unprepared to take on. HP fell short of those responsibilities. HP subsequently entered into an administrative order with the Iowa Department of Natural Resources (“DNR”) in which HP agreed to remedy certain failings.

HP did not remedy those failings, whether because of lack of funds, unreliable contractors, or other reasons. The DNR brought this action to enforce the administrative order. The DNR further sought to impose a \$10,000 fine on HP for failing to comply with the administrative order.

Following oral argument, both parties were invited to suggest cleanup timelines for certain tasks on the property. The parties each discuss four tasks that need to be completed.

The first task is to file an environmental covenant with the appropriate county. An environmental covenant attached to the property will alert future owners of the property’s former use as a landfill. The DNR indicated the cost to file an environmental covenant is minimal. The DNR asks for the ability to approve the terms of the environmental covenant before it attaches to the

property. The DNR asked for this task to be completed by July 10. HP requested to have until August 1.

The second task is to repair the fence around the property. This will protect public health and the environment. DNR suggests that HP install warning signs around the property as well. The DNR asked for this to be done by August 1. HP suggested September 1.

The third task is to complete a site assessment and submit a site assessment report to the DNR. This assessment will discuss the status of groundwater contamination on the property and will assess landfill gas migration on the property. The DNR wants to develop the assessment plan in consultation with the contractor hired to perform the assessment. The DNR suggested I impose a deadline of September 2 for this task. HP suggested October 1.

The fourth and final task is to repair the landfill cover/cap on the property. Both parties proposed a deadline of November 1 for this task.

As stated above, the DNR initially sought a \$10,000 fine for HP's noncompliance. In its brief, the DNR states, "DNR understands these requirements have associated costs, and the DNR is open to waiving penalties in this instance if required work is completed."

These can be summarized as follows:

<b>Task</b>	<b>DNR Suggestion</b>	<b>HP Suggestion</b>
File environmental covenant	July 10, 2019	August 1, 2019
Repair fence	August 1, 2019	September 1, 2019
Complete site assessment	September 2, 2019	October 1, 2019
Repair landfill cover/cap	November 1, 2019	November 1, 2019
\$10,000 fine?	Yes, but flexible	No

### **ORDER**

Administrative rules permit the DNR to require responsible persons to "take appropriate preventative, investigatory and remedial actions" when the DNR "receives or obtains evidence of groundwater contamination or the release or presence of contaminants in the environment associated with groundwater." Iowa Admin. Code r. 567-133.3(2).

Owners or operators of municipal solid waste landfills are required to monitor landfill gas migration. *Id.* r. 567-113.9.

The DNR may assess administrative penalties of up to \$10,000 through an administrative order. *Id.* r. 567-10.3. The amount of the penalty depends on the days of violation, the actual or reasonably estimated economic benefit, the gravity of the situation, and the culpability of the party involved. *Id.* r. 567-10.3(2). The "gravity" and "culpability" factors are each worth \$3,000.

*Id.* The total penalty “may be increased or discounted up to \$1,000 due to aggravating or mitigating factors, respectively.” *Id.* In any event, the penalty shall not exceed \$10,000. *Id.*

In short, I conclude the DNR has the authority to make the requests it has. That is not the fighting issue, though. The issue is when to require HP to perform these tasks, and which penalty, if any, to impose.

For the first task, I conclude a deadline of **August 1** is reasonable. The covenant, as I understand it, serves mostly to warn potential purchasers of the property that the property used to serve as a landfill, avoiding HP’s situation. Unless HP plans to sell the property before August 1, this does not seem like something that needs to happen as soon as possible. And if HP *does* plan to sell the property before then, I will order that (a) they notify any potential purchasers the property used to be a landfill, and (b) they attach an environmental covenant that is satisfactory to the DNR to the property prior to any sale.

For the second task, I conclude a deadline of **August 1** is reasonable. Unlike the environmental covenant, repairing the fence does seem like something that needs to happen quickly. The fence (and any warning signs) will help protect HP from liability should anyone wander onto the property. It will also serve the public health by preventing trespassers onto a potentially dangerous property.

For the third task, I conclude a deadline of **October 1** is reasonable. While this task is arguably the most important of the four, I also understand it to be the most expensive. HP has experienced issues with unreliable contractors in the past and HP will require funds to pay for the site assessment. I am persuaded to grant them the time they requested to amass funds and find a reliable contractor.

For the fourth task, both parties request a deadline of **November 1** and I see no reason to alter that. The landfill cover/cap shall be replaced by November 1.

Finally, the DNR half-requests an administrative penalty. I conclude a penalty is appropriate here to compel compliance. Given the DNR’s ambivalence, however, I propose the following: for each deadline of the four above that HP misses, its penalty shall increase \$2,500, for a total possible penalty of \$10,000. If HP meets all four deadlines, no penalty shall be imposed. If HP misses one deadline, it shall be assessed a penalty of \$2,500, and so on.

### **ORDER**

HP shall file an approved environmental covenant with the appropriate county by August 1, 2019, or the date on which they sell the property, whichever is earlier. HP shall repair the fence around the property by August 1, 2019. HP shall conduct a site assessment report and submit the site assessment report to the DNR by October 1, 2019. HP shall repair the landfill cover/cap by November 1, 2019. If HP meets all these deadlines, no administrative penalty shall be imposed.

For each deadline HP misses, an administrative penalty of \$2,500 shall be imposed, for a total possible administrative penalty of \$10,000.

Dated this June 13, 2019.



Joseph Ferrentino  
Administrative Law Judge

cc: Samantha Prince, HP Properties, LLC (by certified mail)  
Michael Vervaecke, Registered Agent, HP Properties, LLC (by certified mail)  
David Scott, Attorney for DNR (by email)

#### **APPEAL RIGHTS**

Any adversely affected party may appeal a proposed decision. An appeal by a party shall be made to the agency having jurisdiction of the proceeding and shall be taken within 30 days after receipt of the proposed decision or order. Appeal is taken and perfected by filing with the director a timely notice of appeal signed by the appellant or the appellant's attorney. The written notice of appeal shall be filed with the director at:

Iowa Department of Natural Resources  
502 East 9th Street  
Des Moines, Iowa 50319

See Iowa Admin. Code r. 561-7.4(1)(17A,455A). It shall specify the parties taking the appeal and the final decision or order or part thereof appealed. The notice shall set forth, with particularity, the conclusions of law or findings of fact appealed. It shall be the appellant's responsibility to immediately serve the notice of appeal upon all parties of record other than the appellant. Any party adversely affected by a final decision or order, other than an emergency order which is governed by rule 561-7.18(17A,455A), may petition the agency for a stay of the final decision or order pending judicial review. The petition for stay shall be filed with the director within ten days of receipt of the final decision or order, and shall state the reasons justifying a stay. *See generally*, Iowa Admin. Code r. 561-7.17(17A,455A).