Agenda

Environmental Protection Commission

Tuesday, November 15, 2022

Teleconference: 631-618-4607 PIN: 484 733 354#

Video Conference: https://meet.google.com/rzo-uidn-tvg

502 East 9th Street, Des Moines, Iowa 50319

DNR 2 North Conf Room

Tuesday, November 15, 2022
10:00 AM – EPC Business Meeting

If you are unable to attend the business meeting, comments may be submitted to Alicia Plathe at Alicia.Plathe@dnr.iowa.gov or 502 East 9th St, Des Moines IA 50319 up to 24 hours prior to the business meeting for the public record.

1	Approval of Agenda	
2	Approval of the Minutes (Packet Page 3)	
3	Monthly Reports (Packet Page 8)	Ed Tormey (Information)
4	Director's Remarks	Kayla Lyon (Information)
5	Farmers Creek and Tete des Morts Creek Watershed Projects (Packet Page 12)	Jennifer Kurth Steve Hopkins (Information)
6	Contract with Iowa Department of Agriculture and Land Stewardship (IDALS)-Protect Rathbun Lake Project (Packet Page 23)	Steve Konrady (Decision)
7	Contract with Iowa Department of Agriculture and Land Stewardship (IDALS)-Iowa Great Lakes Targeted Watershed Project (Packet Page 25)	Steve Konrady (Decision)
8	Contract with Iowa Department of Agriculture and Land Stewardship (IDALS)-Silver Creek (Howard County) Water Quality Project (Packet Page 28)	Miranda Haes (Decision)
9	Contract Amendment with Iowa State University-Conservation Learning Group (Packet Page 31)	Steve Hopkins (Decision)
10	Contract with Southern Iowa Resource, Conservation and Development Area Inc., (SIRCD)-Adams, Taylor and Union County Stream Sign Project (Packet Page 35)	Steve Konrady (Decision)
11	2022 Statewide Materials Characterization Study (Packet Page 38)	Tom Anderson (Information)
12	Environmental Management System Program Fiscal Year 2022 Annual Report (Packet Page 56)	Laurie Rasmus (Information)
13	Contract Amendment with United States Geological Survey-Central Midwest Water Science Center (Packet Page 61)	Katie Greenstein (Decision)
14	Notice of Intended Action-567 IAC Chapters 100, 102, 104, 120 and 567 IAC 114.29 and 567 IAC 115.29-Cleanup of Solid Waste Chapters (Packet Page 65)	Theresa Stiner (Decision)
15	Final Rule-Chapters 60 and 64-Renewal of General Permits Nos. 1, 2, 3 and 4 with Cleanup and Clarification (Packet Page 96)	Courtney Cswercko (Decision)
16	Referral to the Attorney General-Apex Construction Group, Inc. (Packet Page 104)	Kelli Book (Decision)
17	Items for Next Month's Meeting • Tuesday, December 13, 2022, Wallace Building • Tuesday, January 17, 2023, Wallace Building	

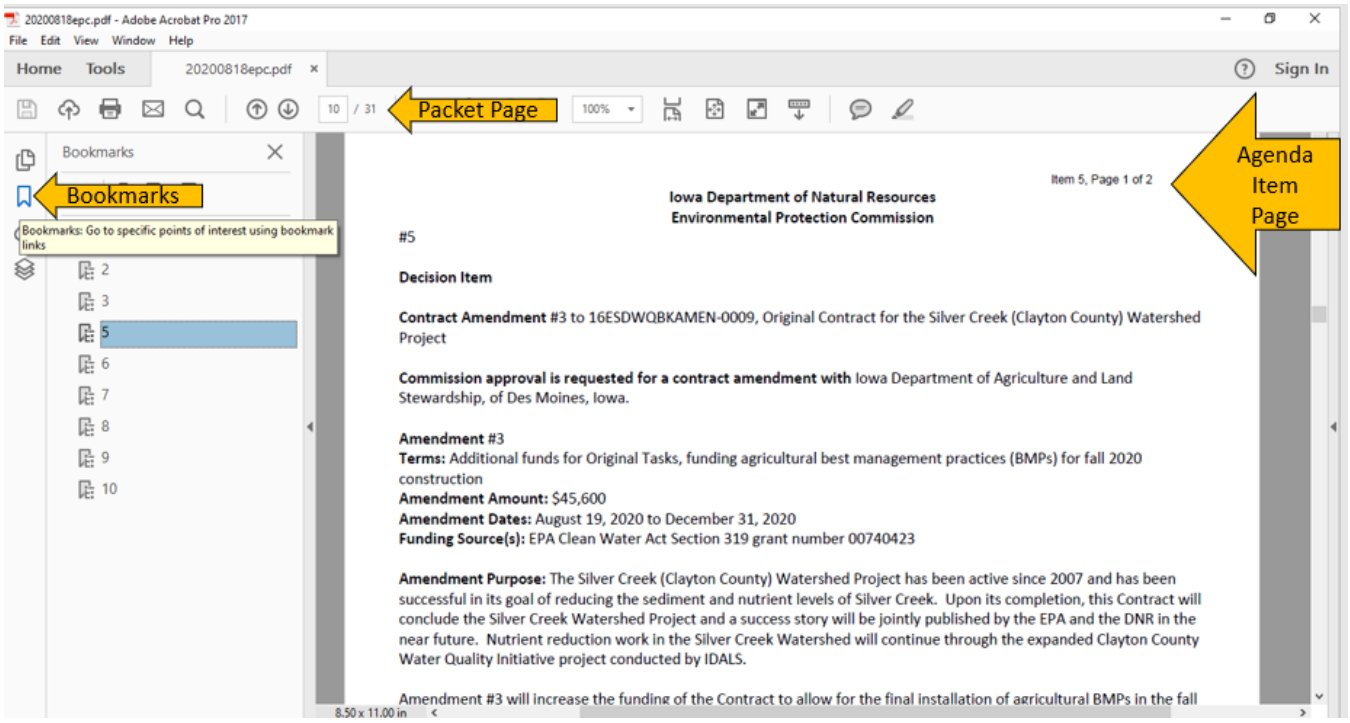
For details on the EPC meeting schedule, visit http://www.iowadnr.gov/About-DNR/Boards-Commissions

[1]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 with special requirements such as those related to mobility or hearing impairments who wishes to participate in the public meeting should promptly contact the DNR or ADA Coordinator at 515-725-8200, Relay Iowa TTY Service 800-735-7942, or Webmaster@dnr.iowa.gov to advise of specific needs.

Utilize bookmarks to transition between agenda items or progress forwards and backwards in the packet page by page with the Packet Page number on the agenda.

The upper right-hand corner will indicate the Agenda Item Number and the page of the agenda item.



MINUTES OF THE
ENVIRONMENTAL PROTECTION COMMISSION
MEETING

October 11, 2022

Video Teleconference
and
Wallace State Office Building

Approved by the Commission TBD

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Meeting Minutes

CALL TO ORDER

The meeting of the Environmental Protection Commission (Commission or EPC) was called to order by Chairperson Harold Hommes at 10:07am on October 11, 2022 via a combination of in-person and video/teleconference attendees.

COMMISSIONERS PRESENT

Rebecca Dostal
Stephanie Dykshorn
Ralph Lents
Amy Echard-virtual
Lisa Gochenour-virtual
Harold Hommes

COMMISSIONERS ABSENT

Mark Stutsman
Patricia Foley
Brad Bleam

APPROVAL OF AGENDA

Motion was made by Stephanie Dykshorn to approve the agenda as presented. Seconded by Rebecca Dostal.

The Chairperson asked for the Commissioners to approve the agenda by saying aye. There were no nay votes.

AGENDA APPROVED AS PRESENTED

APPROVAL OF MINUTES

Motion was made by Ralph Lents to approve the September 20, 2022 EPC minutes as presented. Seconded by Stephanie Dykshorn.

Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold Hommes, aye, Motion passes.

APPROVED AS PRESENTED

MONTHLY REPORTS

- Ed Tormey introduced the new Supervisor for the DNR's Underground Storage Tanks section, Keith Wilken.
- Mr. Tormey also provided an update to the Commissioners on the status of the Animal Feeding Operations (AFO) Rulemaking process. He mentioned that the DNR was requested to extend its informal public comment period for the proposed AFO rules for two additional weeks. The comment period will now be open until October 21, 2022. Mr. Tormey shared that next steps include reviewing the comments (several hundred received to date), incorporating suggestions into the rules, and drafting a preclearance package to present to the Governor's Office. Commissioners will see the rules in the near future as a Notice of Intended Action.

INFORMATION

DIRECTOR'S REMARKS

- Director Lyon announced that the 50th anniversary of the Clean Water Act is next week. Director Lyon mentioned that an article celebrating the anniversary was published in our Iowa Outdoors magazine and communications were shared as part of a display at the Iowa State Fair DNR building in August. Additional communications will be sent out by the Department leading up to the anniversary date.

NOTICE OF INTENDED ACTION-567 IAC CHAPTER 107-BEVERAGE CONTAINER DEPOSITS

Amie Davidson requested approval of a Notice of Intended Action to amend 567 IAC Chapter 107-Beverage Container Deposits, to align the rules with 2022 Iowa Acts, Senate File 2378, which amended Iowa Code Chapter 455C. Amie explained that a public hearing will be held in November and final rules will go before the EPC Commissioners in December, pending the approval of today's agenda item.

Motion was made by Ralph Lents to approve the item as presented. Seconded Rebecca Dostal.

Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold Hommes, aye, Motion passes.

APPROVED AS PRESENTED

NOTICE OF INTENDED ACTION-CHAPTERS 20, 22, 23, 25 AND 28-AIR QUALITY RULES UPDATE

Christine Paulson requested approval of a Notice of Intended Action (NOIA) to amend Chapter 20, 22, 23, 25, and 28, which adopts several new and revised federal air quality standards. Christina explained that most states adopt the federal standards in their state rules. She also clarified that the revised federal standards adopted in this NOIA were promulgated at various points throughout the last calendar year.

Public Comments – None

Written Comments – None

Motion was made by Stephanie Dykshorn to approve the item as presented. Seconded by Ralph Lents.

Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold Hommes, aye, Motion passes.

APPROVED AS PRESENTED

CONTRACT WITH SENECA COMPANIES/LESLIE NAGEL, PROFESSIONAL ENVIRONMENTAL SERVICES FOR THE LEAKING UNDERGROUND STORAGE TANK TRUST FUND PROJECT

Tammy Vander Bloemen presented a contract with Seneca Companies/Leslie Nagel for environmental services necessary for the DNR to achieve objectives of the Leaking Underground Storage Fund. Tammy explained which sites are eligble to receive services through this contract. She also provided details regarding the contractor selection process.

Public Comments – None

Written Comments – None

Motion was made by Rebecca Dostal to approve the item as presented. Seconded by Stephanie Dykshorn.

Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold Hommes, aye, Motion passes.

APPROVED AS PRESENTED

CONTRACT WITH FYRA ENGINEERING, INC. FOR HIGH HAZARD DAMS RISK REVIEW

Jonathan Garton presented a contract with FYRA Engineering, Inc. for risk analysis work on a portion of the high hazard dams in Iowa that are state-regulated. Jonathan explained that the 27 dams included in this contract were prioritized due to their age.

Public Comments – None

Written Comments – None

Motion was made by Ralph Lents to approve the item as presented. Seconded by Rebecca Dostal.

Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold Hommes, aye, Motion passes.

APPROVED AS PRESENTED

CONTRACT AMENDMENT WITH GRESHAM SMITH, ENVIRONMENTAL MANAGEMENT SYSTEM PROGRAM CONSULTING

Laurie Rasmus presented a contract amendment with Gresham Smith to extend the present contract for professional services to the Environmental Management System (EMS) program and program participants. Laurie anticipates the need for future contract services as the contract covers onboarding of new EMS participants, technical assistance, training, and assistance with an annual workshop for participants.

Public Comments – None

Written Comments – None

Motion was made by Stephanie Dykshorn to approve the item as presented. Seconded by Ralph Lents.
Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold Hommes, aye, Motion passes.

APPROVED AS PRESENTED

REFERRAL TO THE ATTORNEY GENERAL-SHANE AND MICHELLE LARSEN MMP

Kelli Book presented the request to refer Shane and Michelle Larsen to the Attorney General's Office due to animal feeding operation violations at their facility located in Kossuth County. Kelli responded to Commissioner questions regarding the DNR's communication efforts throughout the history of the documented violations.

Public Comments – None

Written Comments – None

Motion was made by Stephanie Dykshorn to approve the item as presented. Seconded by Rebecca Dostal.
Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold.

APPROVED AS PRESENTED

EPC MEETING DATES, CALENDAR YEAR 2023

Alicia Plathe presented proposed meeting dates for the 2023 EPC Meetings. Chairperson Hommes clarified that the meetings will continue to be held starting at 10:00am on the dates proposed.

Public Comments – None

Written Comments – None

Motion was made by Rebecca Dostal to approve the item as presented. Seconded by Ralph Lents.
Rebecca Dostal-aye, Stephanie Dykshorn-aye, Mark Stutsman-absent, Patricia Foley-absent, Brad Bleam-absent, Lisa Gochenour-aye, Amy Echard-aye, Ralph Lents-aye, Harold.

APPROVED AS PRESENTED

GENERAL DISCUSSION

- Alicia Plathe proposed potential EPC tour dates and locations to the Commissioners for CY 2023.
- Alicia also handed out the 2022 Pollution Prevention Services Intern Program case summary booklet for Commissioner review.

ADJOURN

The Chairperson adjourned the Environmental Protection Commission meeting at 11:02 am on October 11, 2022.

ADJOURNED

Monthly Waiver Report
October 2022

Item #	DNR Reviewer	Facility/City	Program	Subject	Decision	Date	Agency
1	Larry Bryant	Savage Sanitary District STP	CP (Wastewater)	Variance from Iowa Wastewater Facilities Design Standards Secction 13.4.3 - pumps must be capable of passing a 3-inch sphere and have a minimum 4-inch dia. discharge. The District is proposing pumps with a 1.22-inch throughlet and 3-inch discharge.	Approved	9-22-22	22cpw214
2	Danjin Zulic	LDJ Manufacturing Inc	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement	Approved	9-27-22	22aqw215
3	Karen Kuhn	ADM Clinton Bioprocessing	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement	Approved	9-27-22	22aqw216
4	Chris Roling	The University of Iowa	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement	Approved	9-29-22	22aqw217
5	Mark Fields	Elite Octane LLC	Air Quality Construction Permits	Request to adjust fermentation scrubber rates below most recent test level. Also requested to test alternative chemical additives.	Approved	9-21-22	22aqw218
6	Petitti, Book, Fields, and Manz	Dean Pudenz open feedlot	Animal Feeding Operation	The applicant requests a waiver from 567 IAC 65.108(2) due to a deep well located approximately 65 feet from the nearest feedlot pen.	Approved	10-4-22	22cpw219
7	Seth Moore	National Park Service	Sovereign Lands Construction Permitting	The petitioner is requesting a variance to allow for a bank stabilization project using natural bank reinforcing materials and vegetation along the Mississippi River instead of riprap.	Approved	9-30-22	22slw220
8	Danjin Zulic	Manildra Milling Corporation	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	10-12-22	22aqw221
9	Theresa Stiner	Black Hawk District Office, Iowa DNR	Solid Waste	A waiver is being requested to compost fish using shallow trench method of composting. This request is to treat the fish the same as dead farm animals, allowing for the composting to take place under the permit by rule provisions in rule 567-105.6.	Approved	10-12-22	22sdw222
10	Danjin Zulic	3M Company	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	10-18-22	22aqw223
11	Julie Duke	Northern Natural Gas	Air Quality Construction Permits	request to to operate EU 5 Safety Flare, currently operating under a Small Unit Exemption (SUE), until construction permit issuance.	Approved	10-13-22	22aqw224
12	Seth Moore	Des Moines River	Sovereign Lands Construction Permitting	The petitioner has requested to place riprap and fill that does not coform to Chapter 13 rules. The riprap will be a larger size and fill will be placed behind riprap due to site location.	Approved	10-19-22	22slw225
13	Wendy Hieb	Cargill, Inc.	NPDES	Cargill requested a reduction in their BOD5 monitoring frequency from daily to three times per week. Cargill does not have an on-site certified lab for BOD5, and private labs typically do not accept these samples on the weekend.	Approved	10-18-22	22npw226

Iowa Department of Natural Resources
Environmental Services Division
Third Quarter Report of Manure Releases

During the period July 1, 2022, through September 30, 2022, 6 reports of manure releases were forwarded to the central office. A general summary and count by field office is presented below.

		Total Incidents		Surface Water Impacts		Feedlot		Confinement		Land Application		Transport		Hog		Cattle		Poultry		Other	
Month	Year	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago
Jan	2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	2022	1	1	1	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0
Mar	2022	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Apr	2022	3	4	1	2	0	1	2	2	0	1	1	0	3	1	0	3	0	0	0	0
May	2022	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Jun	2022	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Jul	2022	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Aug	2022	3	1	1	1	0	0	1	1	1	0	1	0	3	1	0	0	0	0	0	0
Sep	2022	3	0	1	0	0	0	0	0	1	0	2	0	2	0	1	0	0	0	0	0
Total		**13**	**7**	**5**	**3**	**1**	**1**	**6**	**5**	**2**	**1**	**4**	**0**	**9**	**4**	**4**	**3**	**0**	**0**	**0**	**0**

Total Number of Incidents per Field Office for the Selected Period	Field Office 1		Field Office 2		Field Office 3		Field Office 4		Field Office 5		Field Office 6	
	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current	Previous
Total	2	0	1	0	2	0	1	2	0	0	0	0

Iowa Department of Natural Resources
Environmental Services Division
Third Quarter Report of Hazardous Conditions

During the period July 1, 2022, through September 30, 2022, 128 reports of hazardous conditions were forwarded to the central office. A general summary and count by field office is presented below. This does not include releases from underground storage tanks, which are reported separately.

				Substance						Mode													
		Total Incidents		Agrichemical		Petroleum Products		Other Chemicals		Transport		Fixed Facility		Pipeline		Railroad		Fire		Other*		CR-ERNS	
Month	Year	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago
Jan	2022	33	32	2	1	18	19	14	14	10	11	19	12	0	0	0	0	0	0	1	2	3	7
Feb	2022	35	28	2	0	22	18	13	10	11	9	14	16	0	0	0	1	0	0	4	1	6	1
Mar	2022	35	28	1	1	27	22	7	7	9	11	19	13	0	1	0	0	0	0	6	1	1	2
Apr	2022	44	36	8	8	31	19	11	12	15	13	18	15	0	0	4	1	0	0	4	2	3	5
May	2022	46	50	15	4	26	31	15	16	15	22	21	17	1	0	1	4	1	0	3	2	4	5
Jun	2022	54	42	8	6	30	24	26	19	22	19	17	16	0	0	3	3	1	0	5	2	6	2
Jul	2022	47	65	3	17	29	30	17	23	13	17	24	25	0	1	0	0	1	2	2	5	7	15
Aug	2022	45	48	1	3	19	29	25	20	11	6	15	27	1	1	0	2	0	0	4	4	14	8
Sep	2022	36	33	2	0	25	23	14	13	13	11	19	10	0	0	1	2	0	1	1	4	2	5
	Total	**375**	**362**	**42**	**40**	**227**	**215**	**142**	**134**	**119**	**119**	**166**	**151**	**2**	**3**	**9**	**13**	**3**	**3**	**30**	**23**	**46**	**50**

*Other includes dumping, theft, vandalism and unknown
** CR-ERNS incidents are ongoing releases as defined by Federal regulations.
These reports are included in "Total Incidents" and "Substance" counts but not in "Mode" counts.

Total Number of Incidents per Field Office This Selected Period	Field Office 1		Field Office 2		Field Office 3		Field Office 4		Field Office 5		Field Office 6	
	Current	Year Ago	Current	Year Ago	Current	Year Ago	Current	Year Ago	Current	Year Ago	Current	Year Ago
Total	18	25	14	15	1	10	32	48	31	13	31	35

Iowa Department of Natural Resources
Environmental Services Division
Third Quarter Report of Wastewater By-passes

During the period July 1, 2022 through September 30, 2022, 34 reports of wastewater by-passes were received by the department. A general summary and count by field office is presented below. This does not include by-passes resulting from precipitation events (including flood water infiltration) or bypasses resulting in basement backups.

Quarter	Total	Avg. Length (days)	Avg. Volume (MGD)	Sampling Required	Fish Kill
1ST Quarter '22	37 (36)	0.353	0.359	3	0(0)
2ND Quarter '22	35 (40)	1.380	0.011	3	0(0)
3RD Quarter '22	34 (32)	0.250	0.016	1	0(0)
4TH Quarter '21	25 (28)	0.562	0.017	0	0(0)

(numbers in parentheses are for same period last year)

Total Number of Incidents per Field Office This Quarter:

Field Office	1	2	3	4	5	6
Reports	5	4	2	5	8	10

A Tale of Two Streams

Steve Hopkins and Jen Kurth

Water Quality Improvement Section

Iowa Department of Natural Resources

Leading Iowans in caring for our natural resources

Success Stories

NONPOINT SOURCE SUCCESS STORY

Iowa

Farmers Bring Back Life to Farmers Creek

Waterbody Improved

Farmers Creek in Jackson County was placed on Iowa's impaired waters list in 2000 due to fish kills in 1997 and 1998. An additional impairment was added in 2002 due to a decline in the biological community based on biological index scores. Nutrients and increased sediment delivery were identified as pollutants of concern in the watershed. Through the Farmers Creek Watershed Project, farmers and landowners installed conservation practices that reduced nutrients and sediment reaching the creek and improved the habitat for aquatic life. Monitoring shows Farmers Creek now meets the impairment delisting criteria for both the benthic macroinvertebrates and fish and is a candidate for delisting from the impaired water's list by the Iowa Department of Natural Resources (DNR) in the 2022 cycle, due to the recovery of the biological community.

Problem

Farmers Creek is a warm water stream located in Jackson County, within the Maquoketa River basin in eastern Iowa. The Farmers Creek watershed includes a total of 30,590 acres (47.8 square miles) of rolling farmland and bluffs (Fig. 1). Due to the steep topography and soil characteristics, 86 percent of the watershed is considered highly erodible land. Land use in the watershed is primarily agricultural and is managed for row crop and livestock production totaling 79 percent of the watershed. The village of LaMotte (pop. 260) is the only town located within the watershed.

Figure 1. The Farmers Creek watershed with biosampling site. (Map: Andy Asell, Iowa DNR)

Nutrients and sediment delivery were identified as the primary nonpoint pollution concerns in the watershed. Pre-project sediment delivery to the stream estimated a loss of 0.45 tons of soil/acre/year or 13,623 tons/year. Additionally, two fish kills in 1997 and 1998 were determined to have been caused by livestock waste and runoff from land applied dairy manure. The estimated fish loss in 1997 was 133,000 fish, valued at almost $32,000. Less than one year later, another 4,264 fish died in another fish kill incident.

Sampling in 1999 found that the biological community in the stream was impaired. Low biological index scores for fish and benthic macroinvertebrates did not meet the criteria for the ecoregion that would ensure full support of the biological life use of the stream. Benthic macroinvertebrates are aquatic animals like insects, snails, mussels, and crayfish that live on the stream bottom.

NONPOINT SOURCE SUCCESS STORY

Iowa

Life Restored in Tete des Morts Creek

Waterbody Improved

Tete des Morts Creek in Jackson County was placed on Iowa's impaired waters list in 2006 due to a fish kill in 2005 and biological sampling conducted in 2001 which showed a decline in the biological community of benthic macroinvertebrates (aquatic animals like insects, snails and crayfish which live on the stream bottom). Nutrients and increased sediment delivery were identified as pollutants of concern in the watershed. Through the Tete des Morts Watershed Project, farmers and landowners installed conservation practices that reduced nutrients and sediment reaching the creek and improved the habitat for aquatic life. Monitoring shows Tete des Morts now meets the impairment delisting criteria for both the benthic macroinvertebrates and fish and was removed from the impaired water's list by the Iowa Department of Natural Resources (DNR) in the 2022 cycle, due to the recovery of the biological community.

Problem

Tete des Morts is a tributary of the Mississippi River located in Jackson and Dubuque Counties, in eastern Iowa. The name, which means "Heads of Death" in French, relates to an old legend of a battle with many casualties between two tribes in the valley. The Tete des Morts watershed includes a total of 30,433 acres (47.6 square miles) of rolling farmland and bluffs (Fig. 1). The upper half of the stream is coldwater and supports a thriving brown trout population, while the formerly impaired segment is a warmwater stream.

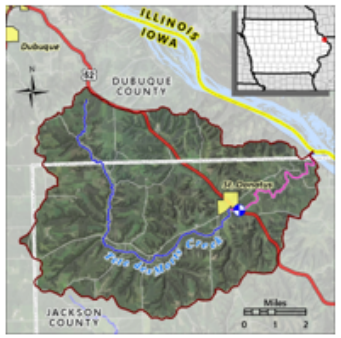
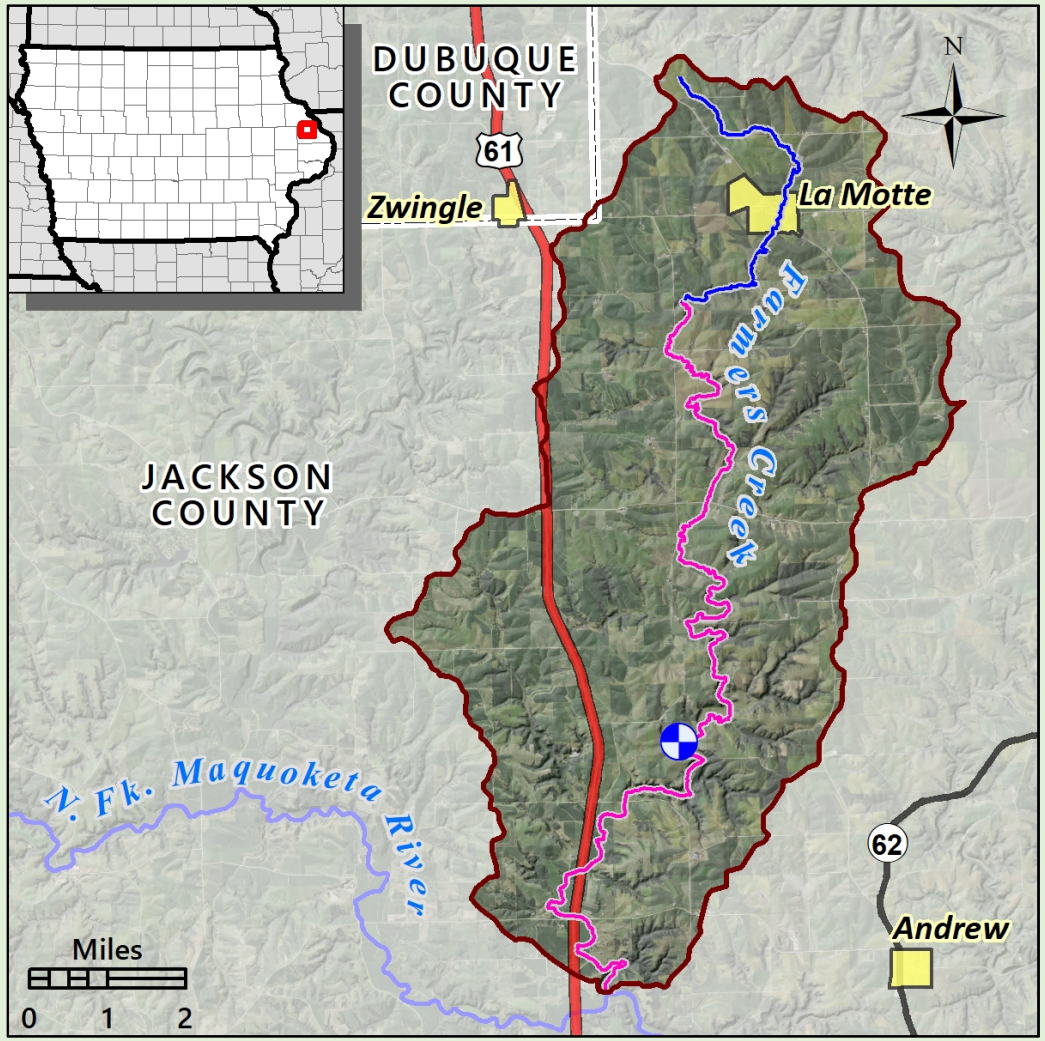


Figure 1. The Tete des Morts Creek watershed with biosampling site. (Map: Andy Asell, Iowa DNR).

Due to the steep topography and soil characteristics, 88 percent of the watershed is considered highly erodible land. Land use in the watershed is primarily agricultural and is managed for row crop and livestock production totaling 64 percent of the watershed, while timber comprises another 34 percent. The town of St. Donatus (pop. 104) is the only town located within the watershed.

Nutrients and sediment delivery were identified as the primary nonpoint pollution concerns in the watershed. Pre-project sediment delivery to the stream estimated a loss of 18,269 tons/year. The stream had a history of fish kills of unknown origin, with the most recent in 2005. The estimated fish loss in 2005 was 3,363 fish, valued at almost $12,000. Fishing is a popular activity in the stream and the IDNR stocked brown trout in the tributaries until 2010 when successful in-stream reproduction indicated stocking was no longer necessary. Sampling in 2001 and 2009 found that the benthic macroinvertebrate community in the stream was impaired. Low biological index scores for benthic macroinvertebrates did not meet the criteria for the ecoregion that would ensure full support of the biological life use of the stream.

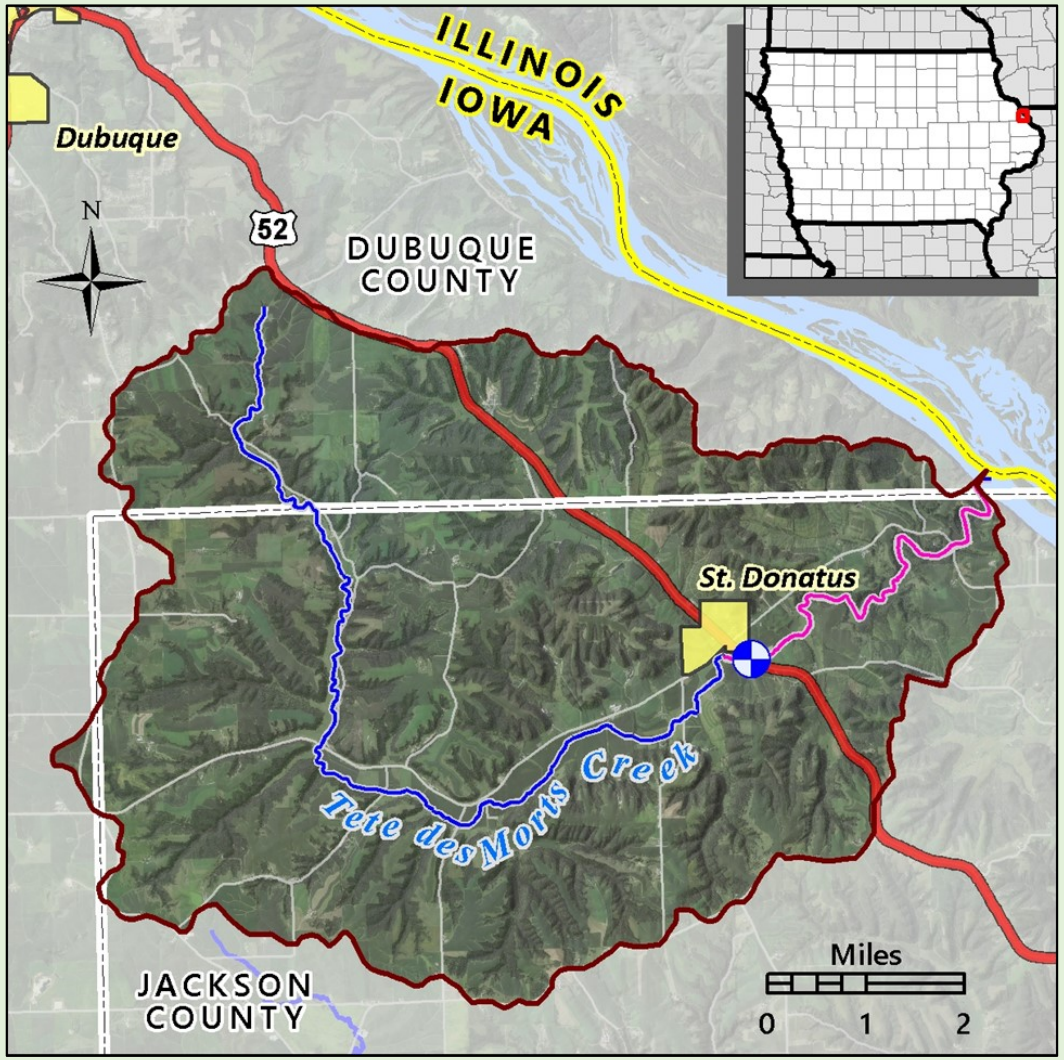
Farmers Creek



- Tributary of the North Fork Maquoketa River
- 30,590 acre watershed
- 86% of watershed highly erodible
- 79% of land use is agricultural (row crop and livestock)
- Fish kills in 1997 and 1998 led to addition to impaired waters list in 2000
- Additional impairment added in 2002 based on biological sampling
- Nutrients and sediment delivery identified as pollutants of concern

Tete des Morts Creek

- Tributary of the Mississippi River
- 30,433 acre watershed
- 88% of watershed highly erodible
- 64% of land use is agricultural (row crop and livestock)
- Biological sampling in 2001 and a fish kill in 2005 led to addition to impaired waters list in 2006
- Nutrients and sediment delivery identified as pollutants of concern



Biological Impairments

Crayfish

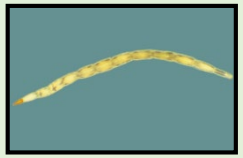
Snails

Mussels

Dragonfly

Beetles

Leeches



Chironomids

Caddisfly

Stonefly

Mayfly

Generalists/ Omnivores

Fathead minnow

Creek chub

White sucker

Invertivores

Hornyhead chub

Bigmouth shiner

Benthic invertivores

Slenderhead darter

Northern hogsucker

Golden redhorse

Herbivores

Southern redbelly dace

Central stoneroller

Top carnivores

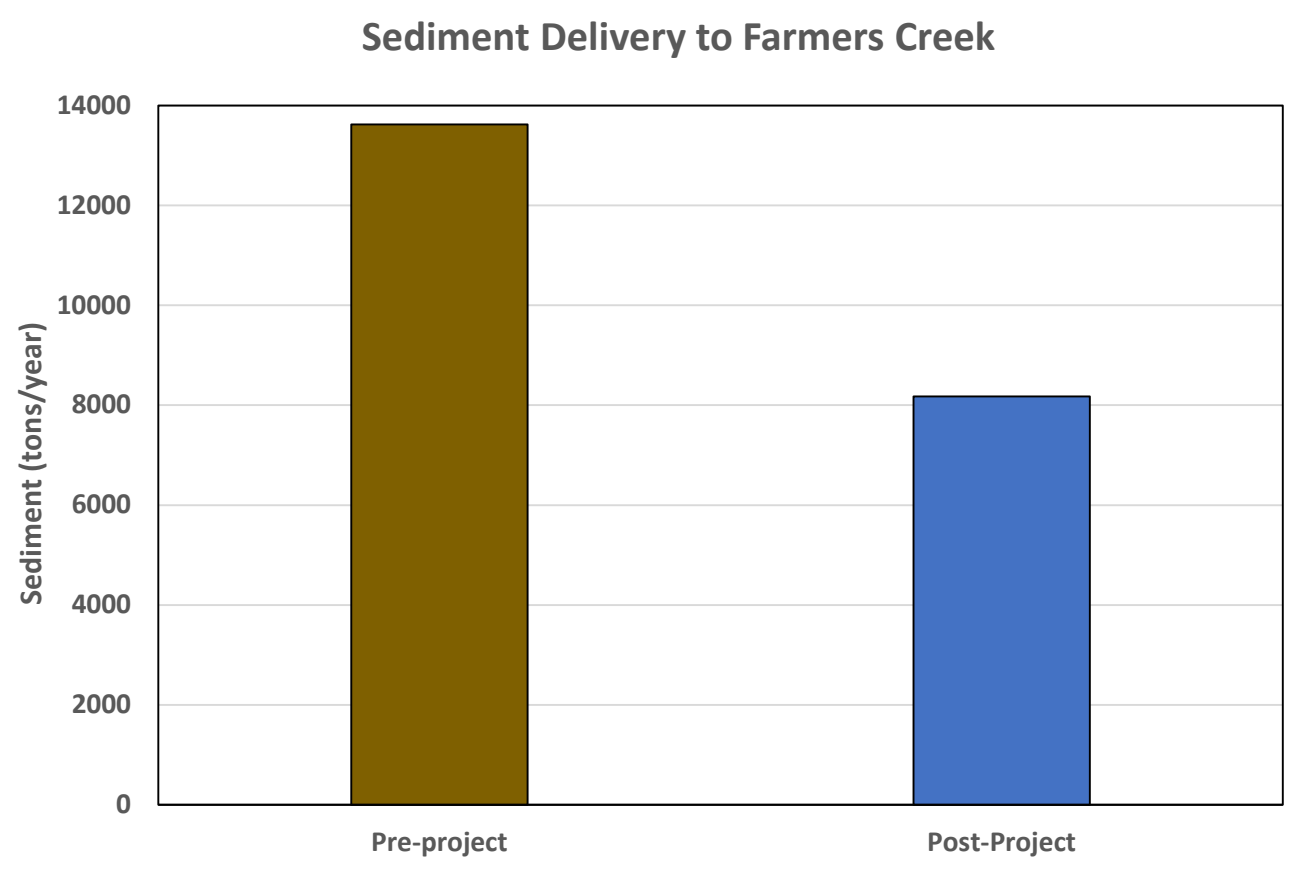
Channel catfish

Smallmouth bass

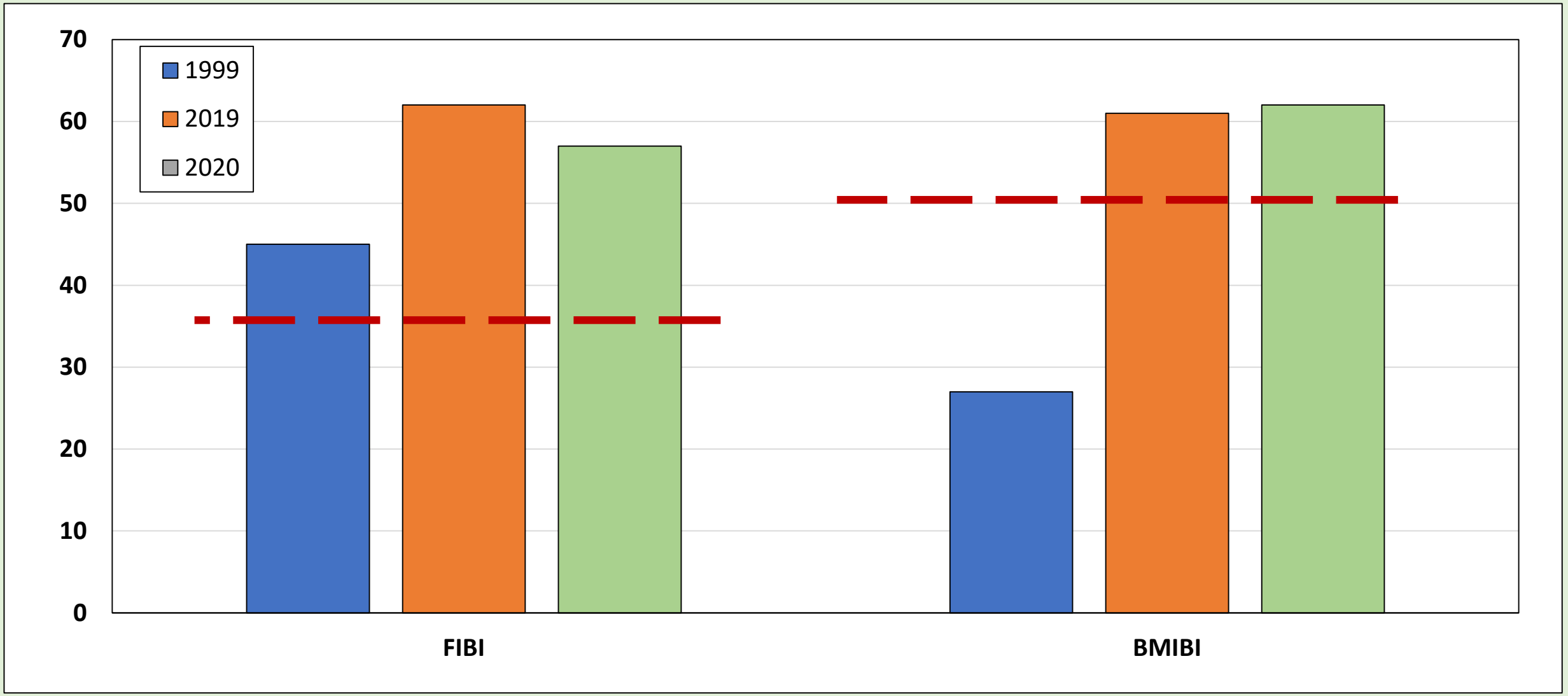
Farmers Creek Project

Michelle Turner (project coordinator, right) and Larry Deppe (landowner, left) at Farmers Creek.

- Project started in 2005
- 5 year project

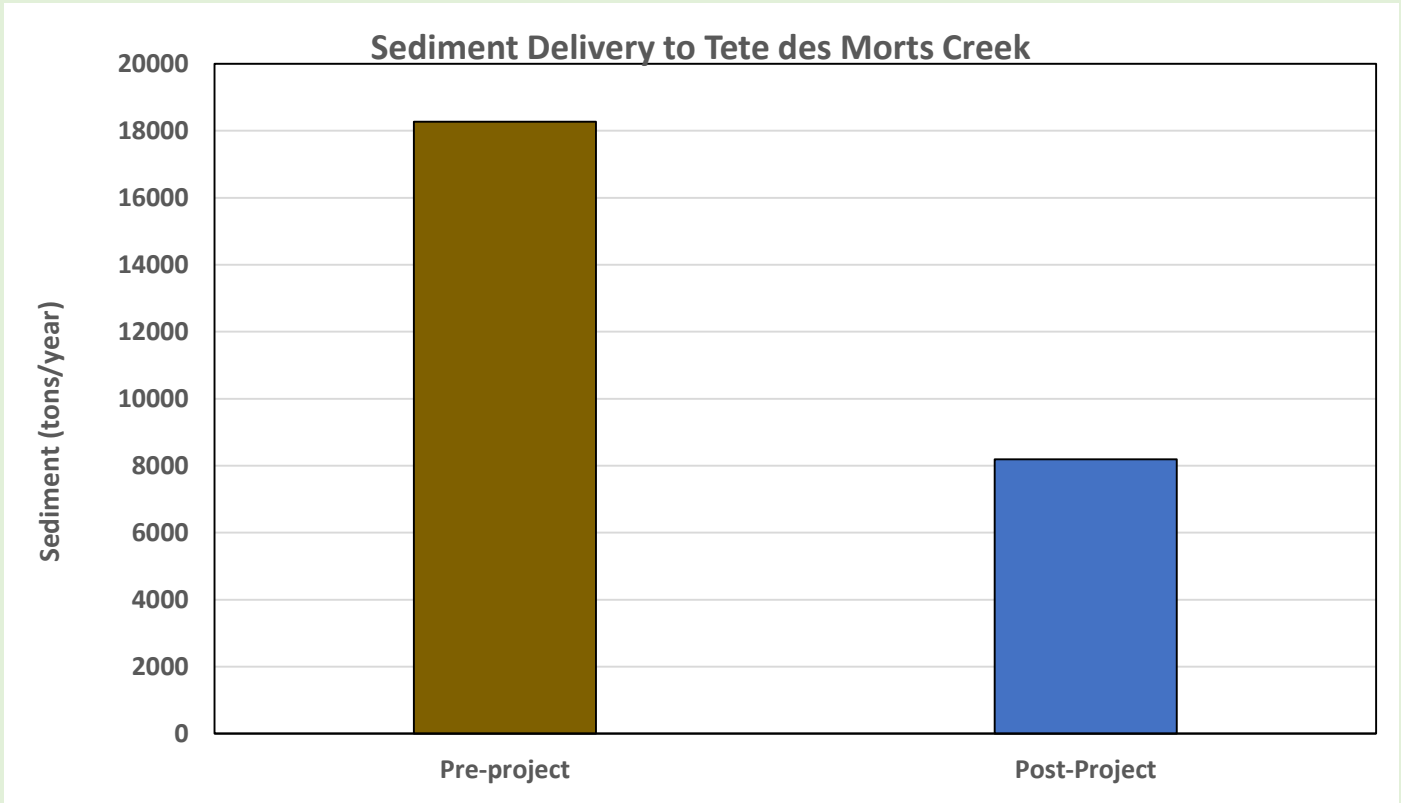


Farmers Creek Project Biological Scores

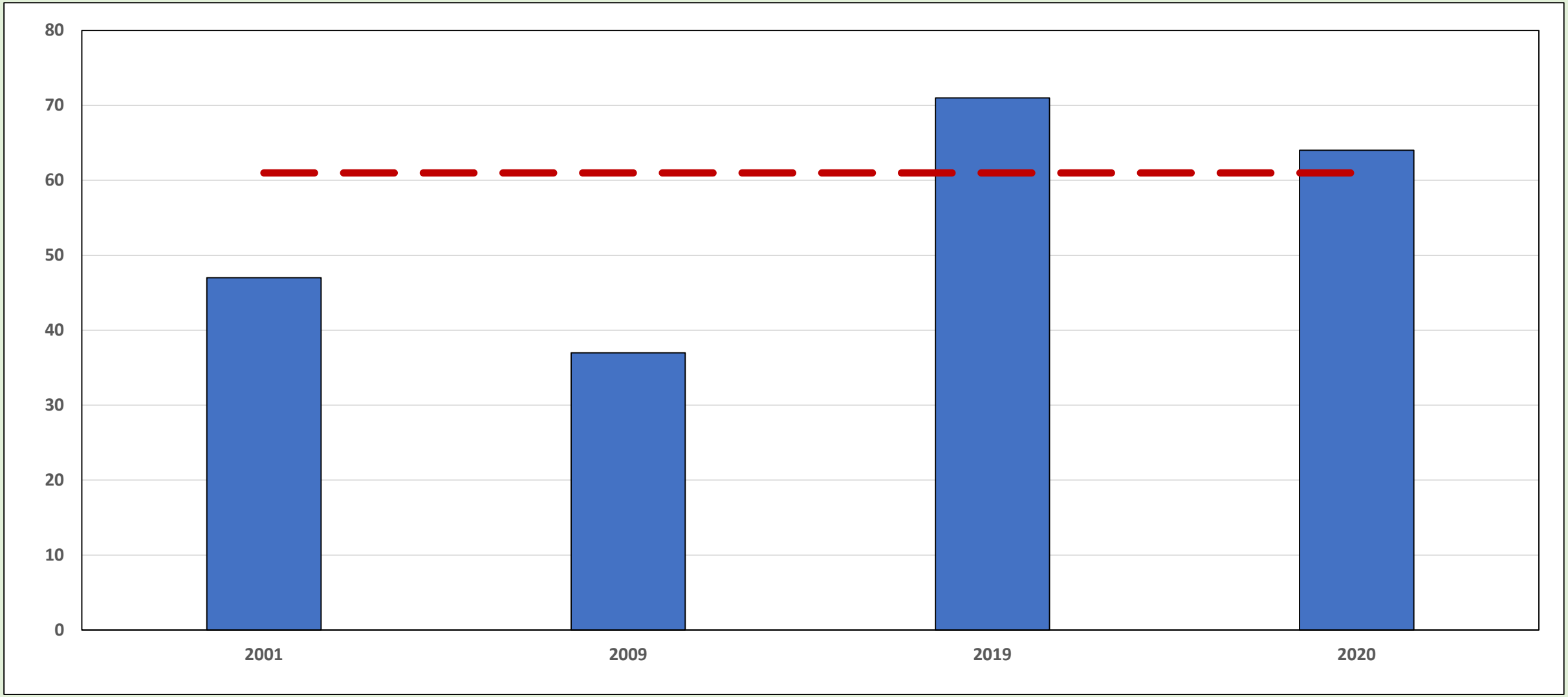


Tete des Morts Creek Project

- Project started in 2008: 9 year project
- The IDNR stocked brown trout until 2010 when successful in-stream reproduction indicated stocking was no longer necessary

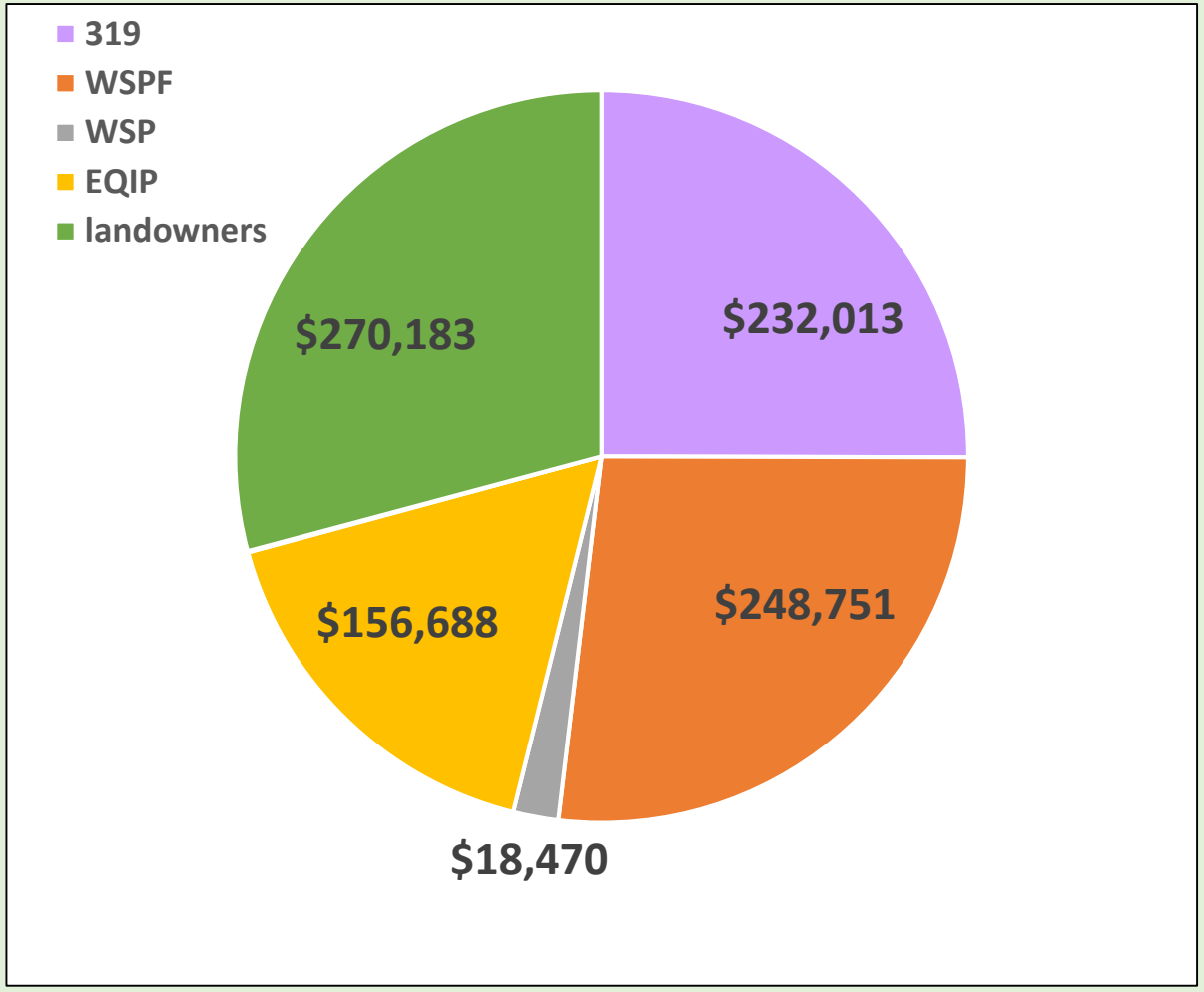


Tete des Morts Creek Project Biological Scores

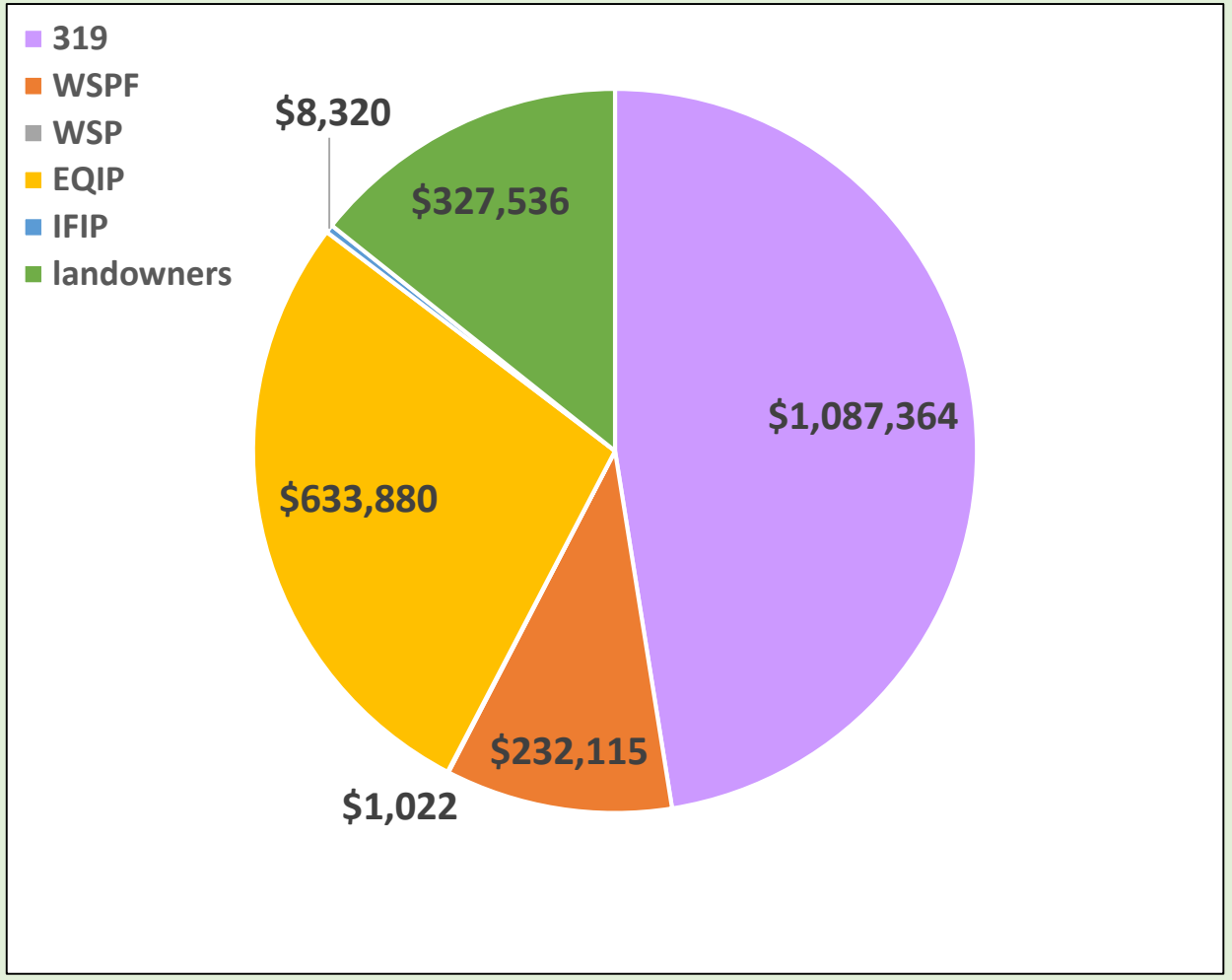


Funding

- Farmers Creek--$926,600



- Tete des Morts Creek--$2,290,236



Questions?

Iowa Department of Natural Resources
Environmental Protection Commission

Item #6 **Decision Item**

Commission approval is requested for a Contract with Iowa Department of Agriculture and Land Stewardship (IDALS) (Protect Rathbun Lake Project)

Contract Terms:

Amount: Not to exceed $514,269
Dates: November 15, 2022 to June 30, 2025.
Funding Source(s): U.S. Environmental Protection Agency Section 319 Grants to DNR
Statutory Authority: Funds are administered by DNR under statutory authority granted by Iowa Code section 455B.103 and under 11 IAC 118.4.

Background:
This Contract will continue to support the Protect Rathbun Lake Project, an ongoing water quality and watershed improvement project administered by IDALS and carried out by the Wayne Soil and Water Conservation District.

Contract Purpose: The overall goal of the Protect Rathbun Lake Project is to reduce sediment and phosphorus delivery to Rathbun Lake and the lake's tributaries through implementing the Rathbun Lake Watershed Management Plan (WMP). Project activities will assist landowners to apply best management practices (BMPs) that will reduce sediment and phosphorus delivery to Rathbun Lake and its tributaries.

The activities proposed for this phase of the WMP include continued work in the 56 targeted sub-watersheds identified in the WMP. Overall goals of the project include the reduction of over 90,000 tons of sediment and 360,000 pounds of phosphorus delivery to Rathbun Lake. Focus areas for the upcoming work of the project funded by this Contract include adding one new sub-watershed per year, identified in each submitted and approved annual workplan. For the first year, this Contract will add the South Fork Chariton River #4 sub-watershed to the project.

Statement of Work/Task:
Task 1: Provide Project Coordinator
Task 2: Submit to DNR the Annual Work Plan and Budget
Task 3: Carry Out Project Activities in the Project Workplan
Task 4: Provide Quarterly Financial Report
Task 5: Provide Quarterly Progress Report
Task 6: Submit Annual Report
Task 7: Submit Final Project Report

Contract History:
The DNR has contracted with IDALS to administer Section 319-funded watershed projects since the early 1990s. The purpose of the contracts with IDALS is to provide funds and project management support to IDALS, which then enters into subsequent agreements with soil and water conservation districts to implement the specific watershed implementation project activities.

Contracts for watershed projects overlap to enable project work to continue without interruption, as new contracts are executed with each new Section 319 grant award. In this manner, project coordinators who work with farmers and landowners to implement conservation practices within watersheds can do so continuously between contracts. Projects typically spend their oldest contract dollars first before utilizing new contract funds.

Below is a list of contracts with IDALS over the previous five years that support the Protect Rathbun Lake Project:
Contract #1: Timeframe: July 1, 2017 to June 30, 2019; Amount $256,508
Contract #2: Timeframe: July 1, 2018 to June 30, 2021; Amount $250,000

Contract #3: Timeframe: July 16, 2019 to June 30, 2022; Amount $407,706
Contract #4: Timeframe: July 21, 2020 to June 30, 2022; Amount $140,874
Contract #5: Timeframe: June 1, 2021 to June 30, 2023; Amount $427,620

Partnerships Summary:
The DNR's primary partnerships for this Contract include:

- IDALS Division of Soil Conservation and Water Quality
- Rathbun Regional Water Association
- Appanoose, Clarke, Decatur, Lucas, Monroe, and Wayne (lead) County Soil and Water Conservation Districts
- Appanoose, Clarke, Decatur, Lucas, Monroe, and Wayne Counties
- US Department of Agriculture Farm Service Agency and Natural Resources Conservation Service
- US Army Corps of Engineers
- US Environmental Protection Agency
- Iowa Farm Bureau Federation, state and local
- And participating landowners of the Rathbun Lake Watershed

Budget Summary:

Rathbun Lake Proposed Budget (2-year budget)	**Contract Amount (DNR 319 Costs)**	Match Funding Share (State/Local)	Leveraged Funds (Non-Match)
Staffing/Admin Support (Top Line Costs)	**$226,354.00**	$293,966.00	$60,000.00
Watershed Practice Support* (Bottom Line Costs)	**$287,915.00**	$484,285.00	$239,500.00
Totals	**$514,269.00**	$778,251.00	$299,500.00
Overall Proposed Project Total	$1,592,020.00		

*Practices targeted by the project include, but are not limited to: terraces, grade stabilization structures, water and sediment control basins, hayland planting, and grazing system improvements. DNR 319 funds will primarily support terraces, grade stabilization structures, and water and sediment control basins. Additionally, the DNR funds fully support a special summer construction incentive which aids producers in installing practices during fair weather and offsets costs to their farm operation as a result of growing season construction.

Steve Konrady, Water Quality Bureau
Environmental Services Division
November 15, 2022

Iowa Department of Natural Resources
Environmental Protection Commission

Item #7

Decision Item

Contract with Iowa Department of Agriculture and Land Stewardship (IDALS) for Iowa Great Lakes Targeted Watershed Project

Commission approval is requested for a Contract with IDALS, of Des Moines, IA.

Contract Terms:

Amount: Not to exceed $145,500
Dates: November 15, 2022 to June 30, 2025
Funding Source(s): U.S. EPA Clean Water Act Section 319 grant to DNR (Grant Numbers 00740429 - FY22 Grant)
Statutory Authority: Funds are administered by DNR under statutory authority granted by Iowa Code section 455B.103 and under 11 IAC 118.4.

Contract Background:

The Iowa Great Lakes (IGLs) are an interconnected chain of natural lakes with a watershed of roughly 87,000 acres in northwest Iowa and southwest Minnesota. Approximately 76 percent of the watershed lies within Dickinson County, Iowa, with the remainder in Jackson County, Minnesota. The IGLs are a major recreational destination for Iowa residents and visitors from surrounding states. Unfortunately, due to non-point source pollution from various sources, the water quality in the lakes has been negatively impacted.

In 2010 the IGLs Watershed Management Plan (WMP) was developed for the purpose of removing and preventing impairments in the watershed, guided by Total Maximum Daily Load (TMDL) documents developed for Lower and Upper Gar lakes as well as Milford Creek which is the outlet for all of the IGLs chain. This plan was updated in 2013 and 2018 to reclassify subwatershed priority.

Contract Purpose: The purpose of this Contract is to designate additional Section 319 funding to support the Iowa Great Lakes Targeted Watershed Project. This Contract will work to carry out the goals of the IGLs WMP (2018 rev.) for the stated contract term. The watershed project will be funded by the following partner entities in combination with DNR-administered U.S. EPA 319 grant funds: IDALS; Dickinson County Soil and Water Conservation District; DNR Lake Restoration Program; Dickinson County Clean Water Alliance; NRCS; and FSA; as well as match funding from landowners. This project has an additional link to a source water protection project funded by NRCS through the Environmental Quality Initiative Program (EQIP) for the Spirit Lake subwatershed.

Selection Process Summary:

Intergovernmental contracting with IDALS is authorized under 11 IAC 118.4. 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).

Statement of Work:

Task 1: Provide Project Coordinator
Task 2: Submit to DNR the Annual Work Plan and Budget
Task 3: Carry Out Project Activities in the Project Workplan
Task 4: Provide Quarterly Financial Report
Task 5: Provide Quarterly Progress Report
Task 6: Submit Annual Report
Task 7: Submit Final Project Report

Contract History:

- IGLs 2009 Grant Planning + Project – ESD7149KAment100208: 3/1/2010 – 6/30/2015, $215,862*
- IGLs 2012+2013 Grant Project – 13ESDGSBKAMEN-0007: 3/20/2013-8/31/2018, $435,696**
- IGLs 2018 Grant Project – 19ESDWQBSKONR-0001: 5/21/2019 – 8/31/2020, $61,000
- IGLs 2019+2020 Grant Project – 20ESDWQBSKONR-0010: 6/1/2020 – 8/31/2023, $397,361***

*This contract had two amendments for time extensions and additional funding, total expenditures were $215,862

**This contract had four amendments: three for time extensions, and one to add $61,585 of additional funding and additional time. Grand total of contract expenditures was $445,696.

***This contract is currently active and had one amendment adding one additional year of time, and $192,986 of funding to the original contract. The currently amended total and timeframe is listed above.

Partnerships Summary:

The DNR's primary partnerships for this Contract include:

- IDALS Division of Soil Conservation and Water Quality
- DNR Lake Restoration Program
- Dickinson County Soil and Water Conservation District
- Dickinson Clean Water Alliance
- Communities of Dickinson County (including cities of Spirit Lake, Okoboji, Arnolds Park, Milford, and others)
- US Department of Agriculture Farm Service Agency and Natural Resources Conservation Service
- US Environmental Protection Agency
- Iowa Farm Bureau Federation, state and local
- And participating landowners of the Iowa Great Lakes Watershed

Budget Summary

Iowa Great Lakes Proposed Budget (2-year budget)	**Contract Amount (DNR 319 Costs)**	Match Funding Share (State/Local)	Leveraged Funds (Non-Match)
Staffing/Admin Support (Top Line Costs)	**$65,500.00**	$110,950.00	$0.00
Watershed Practice Support* (Bottom Line Costs)	**$80,000.00**	$106,670.00	$197,434.00
Totals	**$145,500.00**	$217,620.00	$197,434.00
Overall Proposed Project Total	$560,554.00		

*Practices targeted by the project include, but are not limited to: wetland restoration, cover crops, grassed waterways, shoreline restoration, and low impact development (urban practices). DNR 319 funds will primarily support low impact development and shoreline restoration due to lower availability of other funding partners for those practices identified as priorities by the watershed management plan.

Steve Konrady, Water Quality Bureau
Environmental Services Division
November 15, 2022

Iowa Department of Natural Resources
Environmental Protection Commission

Item #8
Decision Item

Contract with Iowa Department of Agriculture and Land Stewardship (IDALS) – Silver Creek (Howard County) Water Quality Project

Commission approval is requested for a Contract with IDALS of Des Moines, IA.

Contract Terms:

Amount: Not to exceed $322,750.00

Dates: December 1, 2022 to November 30, 2024.

DNR shall have the option to extend this Contract for up to six years from the beginning date of the original contract by executing a signed amendment prior to the expiration of this Contract.

Funding Source(s): U. S. Environmental Protection Agency (EPA) Clean Water Act (CWA) Section 319 funds to DNR, Grant Number 00740428.

Statutory Authority: EPA Section 319 and Iowa Code section 455B.103.

Contract Background:

Silver Creek is a tributary of the Upper Iowa River located in northeast Iowa in Howard and Winneshiek Counties. The 22,410-acre Silver Creek watershed consists of row crops, grassland, and timber, and the city of Cresco (pop. 3,868). Silver Creek is a Class A1 waterbody and is impaired for the bacteria *E. coli* . Primary sources of impairment include open feedlot livestock operations, pasture runoff, runoff from field-applied manure, livestock with direct access to streams, and outdated or faulty septic systems.

The Silver Creek (Howard County) Water Quality Project aims to reduce bacterial loading to the stream through the installation of agricultural best management practices (BMPs). Monitoring in Silver Creek has shown declines in bacterial loading in specific segments and tributaries, which coincides with the nutrient and sediment reductions from previously installed BMPs. These water quality improvements have led DNR Fisheries staff to reintroduce native brook trout to specific branches of the Silver Creek system, highlighting the overall water quality improvement and giving local landowners the accomplishment of a very tangible local goal.

Contract Purpose: The purpose of this Contract is to designate CWA Section 319 funding to support this Project**.** This Contract will work to carry out the goals of the Silver Creek (Howard) Watershed Management Plan (updated in 2015) for the stated Contract term. Other funding partners are identified below.

Statement of Work/Task:

Task 1: Provide Project Coordinator
Task 2: Submit to DNR the Annual Work Plan and Budget
Task 3: Carry Out Project Activities in the Project Workplan
Task 4: Provide Quarterly Financial Report
Task 5: Provide Quarterly Progress Report
Task 6: Submit Annual Report
Task 7: Submit Final Project Report

The cost table is attached as Exhibit A.

Selection Process Summary: Statute or federal grant contracting with IDALS is authorized by 11 IAC 117.5(5) and 118.7, which allows for agreements with entities without competition when the law or federal grant requires them. In addition, intergovernmental contracting with IDALS is authorized under 11 IAC 118.4. Contracts with 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:
The DNR has contracted with IDALS to administer CWA Section 319-funded watershed projects since the early 1990s. The purpose of the contracts with IDALS is to provide funds and project management support to IDALS, which then enters into subsequent agreements with soil and water conservation districts to implement the specific watershed implementation project activities.

Contracts for watershed projects overlap to enable project work to continue without interruption, as new contracts are executed with each new CWA Section 319 grant award. In this manner, project coordinators who work with farmers and landowners to implement conservation practices within watersheds can do so continuously between contracts. Projects typically spend their oldest contract dollars first before utilizing new contract funds.

Below is a list of contracts with IDALS over the previous five years that support this Project:

Contract #1: Silver Creek (Howard) Phase 1 Implementation – 14ESDGSBKAmen-0001: 10/15/2013 – 9/30/2016, $242,160
Contract #2: Silver Creek (Howard) Phase 1 Implementation – 15ESDWQBKAMEN-0001: 9/1/2015 – 9/30/2019, $383,421
Contract #3: Silver Creek (Howard) Phase 2 Implementation – 18ESDWQBSKONR-0004: 8/1/2018 – 8/31/2021, $154,300
Contract #4: Silver Creek (Howard) Phase 2 Implementation – 20ESDWQBSKONR-0005: 9/17/2019 – 8/31/2022, $461,400
Contract #5: Silver Creek (Howard) Phase 2 Implementation - 22ESDWQBJBALK-0002: 1/1/2022 – 12/30/2023, $200,000

Partnerships Summary:
The DNR's primary funding partnerships for this Contract include:

- IDALS Division of Soil Conservation and Water Quality
- Howard Soil and Water Conservation District
- Winneshiek Soil and Water Conservation District
- US Department of Agriculture Farm Service Agency and Natural Resources Conservation Service
- EPA
- Participating landowners of the Silver Creek (Howard) Watershed

Miranda Haes, Northeast Iowa Basin Coordinator, Water Quality Improvement Section
Environmental Services Division
October 14, 2022

Exhibit A

Silver Creek Project Proposed Budget (2-year budget)	**Contract Amount (DNR 319 Costs)**	Match Funding Share (State/Local)	Leveraged Funds (Non-Match)
Staffing/Admin Support (Top Line Costs)	**$107,750.00**		
Watershed Practice Support* (Bottom Line Costs)	**$215,000.00**	$301,600.00	$800,400.00
Totals	**$322,750.00**	$301,600.00	$800,400.00
Overall Proposed Project Total	$1,424,750.00		

*Practices targeted by the project include, but are not limited to: grassed waterways, infiltration practices, terraces, wetland creations, native buffer seedings, nutrient management plans, animal mortality facilities, cover crops, and streambank stabilization structures. DNR 319 funds will primarily support waste storage facility, septic system upgrade, and pasture and hayland management.

Iowa Department of Natural Resources
Environmental Protection Commission

Item #9 **DECISION**

Contract with IOWA STATE UNIVERSITY

Recommendation:
Commission approval is requested for a service contract amendment with Iowa State University, Conservation Learning Group.

Contract Amendment Terms:
Amount: Not to exceed $60,000
Dates: November 15, 2022 to June 30, 2024.
Funding Source(s): U.S. EPA Section 319 Grant to DNR, Grant Number 00740429
Statutory Authority: Funds are administered by DNR under statutory authority granted by Iowa Code section 455B.103 and an U.S. EPA approved work plan.

Contract Amendment Background:
This is a contract amendment to the previously-approved 2021 contract with Iowa State University's Conservation Learning Group to complete a series of deliverables as part of a project titled "Water Quality Matters to Us All: A Vision for the Future."

Deliverables for the original contract included: survey of Iowans across many demographics; six listening sessions; evaluate nine watersheds with stream signs and two without (outreach effectiveness monitoring); video campus interviews at regents universities on watersheds and water quality; 20-25 video interviews of "newer voices in conservation and environmental leadership in Iowa"; production of the final "Water Quality Matters to Us All: A Vision for the Future" report; and all other federal- and state-required reporting outputs.

Contract Amendment Purpose:
The purpose of the amendment is to add new tasks to the original contract to have Iowa State University assist DNR in drafting Iowa's new Nonpoint Source Management Program (NPSMP) plan, facilitating listening sessions for the new plan, and submitting the final version of the plan to U.S. EPA for review and approval by the end of 2023. Iowa's NPSMP is required by U.S. EPA to be updated every 5 years, and having an U.S. EPA-approved plan is a prerequisite to DNR being eligible to receive U.S. EPA Section 319 grant funding to administer water quality programming and watershed improvement projects. The last update to the plan was completed in 2018. The amendment adds $60,000 to the original contract.

The amendment also extends the due date for the final report of the original contract to June 30, 2024, without any additional costs paid by DNR, and extends quarterly and annual report due dates until the end of the contract amendment period.

Contractor Selection Process:
Iowa State University was chosen for this project because they were selected via competitive process for the original NPSMP survey process in 2011. The U.S. EPA Section 319 Grant allows DNR to enter into

"subawards" of this nature, which allow for partners to carry out portions of the NPSMP such as this and detailed in the Contract Purpose section. In addition, statutory authority in Iowa Code section 455B.103 allows the DNR to contract with Iowa State University for this work.

Contract History:
DNR's Water Quality Improvement Section has a long contract history with Iowa State University, Conservation Learning Group, including contracts supporting Iowa Learning Farms, Water Rocks!, and the original "Water Quality Matters to Us All" survey and report process. Relevant to this contract amendment is the original Community Assessment Tool Development contract that led to the "Water Quality Matters to Us All" report.

Contract #1: Timeframe: December 15, 2011 to June 30, 2013; Final Total Amount: $180,500; Amendment: Amended for additional $22,500 to allow for more time and enhancements to the survey process allowing for more listening sessions with farmers, urban residents, and surveys of watershed projects.

Contract #2 (Current): Timeframe: February 1, 2021 to January 31, 2023; Total Amount: $174,160. Contract to complete a series of deliverables as part of a project titled "Water Quality Matters to Us All: A Vision for the Future."

Steve Hopkins, Nonpoint Source Coordinator, Water Quality Bureau
Environmental Services Division
November 15, 2022

Statement of Work and Budget:

Deliverable	Task Milestone Date	Amount of Compensation Allotted to Task	Invoice Due No Later Than
Amendment Task 1A: Nonpoint Source Management Plan Development Draft **Description:** The Contractor will work with DNR to develop a draft plan of the Nonpoint Source Management Plan based on U.S. EPA criteria to be used at the listening sessions to get stakeholder feedback. Draft plan will utilize a story map organization.	**No later than March 31, 2023**	**Not to exceed $20,000**	**March 31, 2023**

Amendment Task 2A: Nonpoint Source Management Plan Listening Sessions **Description:** The Contractor will hold 2 listening sessions with water quality stakeholder groups designated by DNR. Each group will consist of 20-30 individuals. Each session will be at least 1-3 hours in length and notes and or audio recordings will be utilized for analysis.	**No later than** **June 30, 2023**	**Not to exceed $5,000**	**June 30, 2023**
Amendment Task 3A: Produce Listening Sessions report **Description:** The Contractor will write a summary report of the Stakeholder Listening Sessions to DNR and discuss with the DNR team the feedback received on the Nonpoint Source Management Plan draft.	**No later than August 31, 2023**	**Not to exceed $5,000**	**August 31, 2023**
Amendment Task 4A: Produce Final Version of Nonpoint Source Management Plan (with DNR) for U.S. EPA review. **Description:** The Contractor will work with DNR to write a final version of Nonpoint Source Management Plan for U.S. EPA review, making certain the plan fits a story map format and can also easily be made compliant under Section 508 of the Rehabilitation Act (29 U.S.C. § 794d), as amended by the Workforce Investment Act of 1998 (P.L. 105-220). Once text is approved, the Contractor will do the design of the final report and set it up so the DNR team can complete the Section 508 compliant tasks as well as transfer the text onto a Story Map style website.	**No later than November 15, 2023**	**Not to exceed $20,000**	**November 15, 2023**

Amendment Task 5A: Submit Final Version of an U.S. EPA-approved Nonpoint Source Management Plan to U.S. EPA. **Description:** The Contractor will work with DNR to submit a final version of an U.S. EPA-approved Nonpoint Source Management Plan to U.S. EPA, making certain the plan fits a story map format and can also easily be made Section 508 compliant. Once text is approved, the Contractor will do the design of the final report and set it up so the DNR team can complete the Section 508 compliant tasks as well as transfer the text onto a Story Map style website.	**No later than December 15, 2023**	**Not to exceed $10,000**	**December 15, 2023**

Iowa Department of Natural Resources
Environmental Protection Commission

Item #10

Decision Item

Contract with Southern Iowa Resource, Conservation and Development Area, Inc. (SIRCD) for Adams, Taylor, and Union County Stream Sign Project

Commission approval is requested for a Contract with SIRCD, of Creston, IA.

Contract Terms:

Amount: Not to exceed $27,455
Dates: November 15, 2022 to September 30, 2023
Funding Source(s): U.S. EPA Clean Water Act Section 319 grant to DNR (Grant Number 00740429 - FY18 Grant)
Statutory Authority: Funds are administered by DNR under statutory authority granted by Iowa Code section 455B.103.

Contract Background:
As the state agency having primary responsibility for implementation of Iowa's Nonpoint Source Management Program plan, the DNR has identified awareness of water bodies as an important factor in residents' understanding of how actions within their watersheds impact water quality, including how behaviors by residents affect water quality. Therefore, installing signs at bridges over water bodies within designated DNR watershed project areas creates and enhances awareness of the water body and its watershed in the project area.

Contract Purpose:
The purpose of this Contract is to provide funding from DNR to the Contractor for the construction and installation of 79 stream and watershed signs to be installed at designated stream bridges in priority watersheds in Iowa, as identified on the project spreadsheet (Attachment).

Selection Process Summary:
A competitive application process was issued May 11, 2022 with a due date of July 15, 2022. Regardless of the applicant, each county was limited to receiving a maximum award of $10,000. Applicants acting as an organizing entity for multiple counties (such as a Resource Conservation & Development entity or a Watershed Management Authority) were allowed to submit applications on behalf of multiple counties, with no single county totaling over $10,000. Because these stream signs are constructed on county managed roads, all construction work will be handled through the various county engineering departments.

Statement of Work:

Task 1: Sign Construction and Installation
Task 2: Final Report

Partnerships Summary:
The DNR's primary partnerships for this contract include:

- County Engineers of Adams, Taylor, and Union counties
- County Conservation Boards of Adams, Taylor, and Union counties
- County Boards of Supervisors of Adams, Taylor, and Union counties

Budget Summary
See attachment.

Steve Konrady, Water Quality Bureau
Environmental Services Division
November 15, 2022

SIGN LOCATIONS, DETAILS AND COSTS

County	Primary Sign	Secondary Sign	County Road Name or Number	Total Costs Per Sign Location
Adams	Kemp Creek	Source of Lake Icaria	150th + Corning Carl	$816.80
Adams	Mt. Zion Branch	East Nodaway River Watershed	180th + Quince	$887.84
Adams	East Nodaway River		180th + Sycamore	$603.22
Adams	Kemp Creek	East Nodaway River Watershed	210th + Hickory	$857.46
Adams	Kemp Creek	East Nodaway River Watershed	N28; W of Hwy 148	$857.46
Adams	Kemp Creek	East Nodaway River Watershed	N28; E of Hwy 148	$857.46
Adams	Show Creek	Nodaway River Watershed	175th + Dogwood	$816.80
Adams	Williams Creek	West Nodaway River Watershed	N28 + Chestnut	$877.78
Adams	Thompson Creek	Middle Nodaway River Watershed	H20; E of Hwy 148	$918.44
Adams	Thompson Creek	Middle Nodaway River Watershed	H20; E of Kentucky	$918.44
Adams	Thompson Creek	Middle Nodaway River Watershed	H20; W of Kentucky	$552.50
Adams	Entering Lake Icaria Watershed		H20 + Orange	$315.41
Adams	Entering West Nodaway Watershed		N28 + 120th	$315.41
Taylor	West Fork 102 River		J55 + 300th	$623.28
Taylor	Brushy Creek	102 River Watershed	J55 + 300th	$826.58
Taylor	Hog Branch	102 River Watershed	J23 + 170th	$817.60
Taylor	Honey Creek	Platte River Watershed	J23 + 170th	$907.90
Taylor	Middle Branch 102 River		N64 + Tennessee	$623.28
Taylor	East Fork 102 River		N64 + Tennessee	$582.62
Taylor	Hog Branch	Middle East Fork 102 River	N64 + Tennessee	$817.60
Taylor	Ash Branch	Middle East Fork 102 River	N64 + Tennessee	$817.60
Taylor	Honey Creek	Platte River Watershed	N64 + Tennessee	$907.90
Taylor	Norvey Creek	102 River Watershed	N44 + Linwood	$826.58
Taylor	Entering Upper 102 River Watershed		J20 + Elk	$325.44
Taylor	Entering Nodaway River Watershed		J20 + Elk	$325.44

Taylor	Entering Platte River Watershed		N64 + 240th	$325.44
Union	Platte River	Source of Summit Lake	P27 + 140th	$788.86
Union	Middle Platte River		P27 + 190th	$575.28
Union	East Branch Middle Platte River		P27 + 230th	$737.93
Union	East Platte River		P27 + 250th	$534.62
Union	Twelve Mile Creek	Thompson River Watershed	Rea + Jaguar	$900.56
Union	Three Mile Creek	Thompson River Watershed	Rea + 125th	$900.56
Union	Three Mile Creek	Thompson River Watershed	Creamery + 165th	$900.56
Union	West Wolf Creek	Thompson River Watershed	Rea + Umbrella	$900.56
Union	Loefler Creek	Thompson River Watershed	Rea + Redwood	$829.52
Union	Entering Twelve Mile Lake Watershed		Rea + Osage	$301.44
Union	Entering Thompson River Watershed		Rea + Juniper	$301.44
Union	Entering Twelve Mile Lake Watershed		Cherry + 110th + Rea	$301.44
Union	Entering Platte River Watershed		Cherry + Rea	$301.44
Union	Entering Platte River Watershed		Rea + 125th	$301.44
Union	Entering Three Mile Lake Watershed		Rea + Pheasant	$301.44
Union	Entering Thompson River Watershed		Creamery + Hwy 34	$301.44
Union	Entering Platte River Watershed		Hi&Dry + 260th	$301.44
Union	Entering Grand River Watershed		Hi&Dry + 270th	$301.44

TOTALS	
Adams	$9,595.02
Taylor	$8,727.26
Union	$9,781.41
OVERALL*	**$28,103.69**

*Note: Contract total is $27,455. The $648.69 overrun from the request will be rectified or covered with local funds.

Iowa Department of Natural Resources
Environmental Protection Commission

Item #11 **INFORMATION**

TOPIC **2022 Statewide Materials Characterization Study**

The DNR contracted with SCS Engineers to conduct the 2022 Statewide Materials Characterization Study at ten (10) municipal solid waste landfills across Iowa.

This Study continued DNR's history of tracking the types and quantities of waste disposed of in Iowa beginning in 1998. The study was designed to mirror previous statewide waste characterization studies to facilitate the comparison and tracking of waste disposal trends.

This Study provides critical data that assists the DNR and local governments in making program and policy decisions to expand waste diversion initiatives and improve existing program efficiencies. This Study will help measure progress in obtaining waste reduction and recycling goals and will be the basis for implementing new programs and policies and enhancing existing efforts to reuse and recycle end-of-life materials and reduce our reliance on landfills for end of life material management.

The full 2022 Materials Characterization Study report is posted to the DNR's Waste Planning & Recycling website.

Provided as an attachment is the Executive Summary from the 2022 Statewide Materials Characterization Study.

October 27, 2022

Tom Anderson, Executive Officer II
Financial and Business Assistance, Land Quality Bureau
Environmental Services Division

2022 Iowa Statewide Material Characterization Study

Iowa Department of Natural Resources
502 East 9th Street
Des Moines, Iowa 50319-0034
(515)-725-8200

SCS ENGINEERS

27222148.00 | October 2022

8450 Hickman Road Ste 27
Clive, IA 50325
515-631-6160

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ACKNOWLEDGEMENTS

The SCS Engineers project team would like to thank the Iowa Department of Natural Resources (DNR) for their support and guidance throughout the execution of the 2022 Iowa Statewide Material Characterization Study (Study). SCS Engineers could not have completed this Study without the staff support at the ten host facilities that participated in this Study. Staff at these facilities provided detailed information on waste acceptance data, allowed access to their site and waste receipts, and made available equipment and staff resources to aid in obtaining and sorting samples. Additionally, SCS would like to thank the volunteers from the DNR, Iowa Waste Exchange, and regional solid waste planning agencies that volunteered to assist with this Study.

SCS Engineers acknowledges the support of the following sites and staff to help produce the results of this Study:

- Metro Waste Authority – Metro Park East Landfill (MPE)
- City of Newton Landfill
- Iowa City Landfill and Recycling Center
- Cherokee County Landfill
- Landfill of North Iowa
- Cedar Rapids Linn County Solid Waste Agency
- Carroll County Landfill
- Black Hawk County Landfill
- Dubuque Metropolitan Area Solid Waste Agency
- Waste Commission of Scott County

1 EXECUTIVE SUMMARY

The Iowa Department of Natural Resources (DNR) contracted with SCS Engineers (SCS) in March 2022 to conduct the 2022 Iowa Statewide Material Characterization Study (Study). This Study continued DNR's decades long history of tracking the types and quantities of waste disposed of in Iowa. It was designed to mirror previous statewide waste characterization studies to facilitate the comparison and tracking of waste disposal trends. This Study provides meaningful data to help the DNR and local governments make program and policy decisions to expand waste diversion initiatives and improve existing program efficiencies. This Study will help DNR measure progress in obtaining waste reduction and recycling goals and will be the basis for implementing new programs and policies and enhancing existing efforts to further reduce and recycle waste materials.

Ten host facilities were selected for participation in this Study based on applications submitted to the DNR. The selected facilities are listed below:

- Metro Waste Authority – Metro Park East Landfill (MPE)
- City of Newton Landfill
- Iowa City Landfill and Recycling Center
- Cherokee County Landfill
- Landfill of North Iowa
- Cedar Rapids Linn County Solid Waste Agency
- Carroll County Landfill
- Black Hawk County Landfill
- Dubuque Metropolitan Area Solid Waste Agency
- Waste Commission of Scott County

The ten host facilities represent the diversity of solid waste facilities in the State of Iowa with respect to geography, population of service area, types of waste generators, and waste volumes managed. Sampling and sorting activities took place at facilities based on identified facility characteristics (i.e., past participation, geographic location, etc.), quantities of waste received from targeted waste sectors and generator types, and ability to provide accommodations for loader staff and appropriate physical space for the sort.

The overall objectives of the Study were as follows:

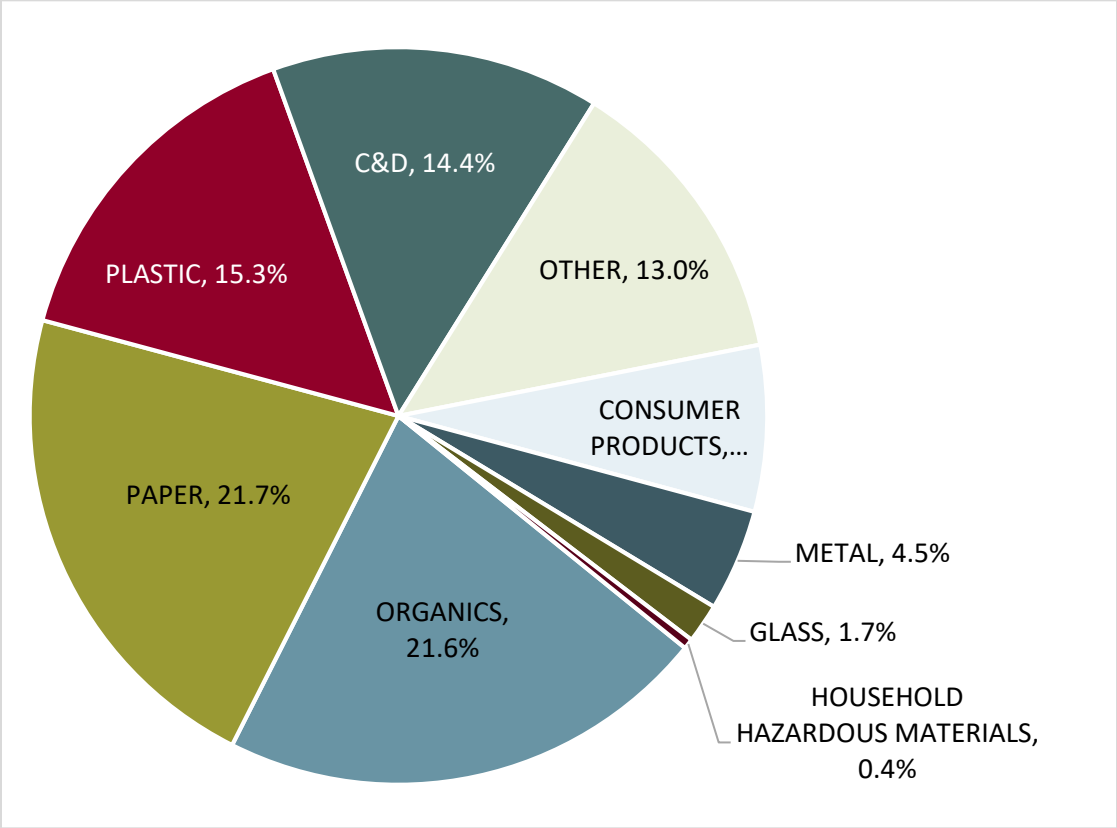
1) Develop statewide material composition data by weight for the residential and institutional/commercial/industrial (ICI) generating sectors for 84 different material components;
2) Document the number of deposit and non-deposit containers found in the physical sort of residential and ICI generating sectors;
3) Develop statewide material composition data by weight for the construction demolition debris (C&D) generating sector for 30 different material components;
4) Provide local detailed material composition data to each of the host facilities that participated in the Study;
5) Perform standard statistical analyses of the material composition data and calculate the 90 percent confidence internals for each material component for the physical waste sort;
6) Use field collection methods that statistically measure material composition data for municipal solid waste (MSW) generated in Iowa and disposed of at permitted solid waste facilities in the state; and
7) Design the Study so it can be compared to previous characterization studies and for ease of replication in future studies the DNR might commission.

This Study provides composition data for the following waste generating sectors:

- **Residential –** Material generated in single-family and multi-family residential households
- **Institutional/Commercial/Industrial (ICI) –** Material disposed by businesses, institutions, and industrial facilities
- **Construction Demolition Debris (C&D) –** Material generated during construction and/or demolition activities

The Study was conducted from May 2022 through July 2022. More than 500 samples were collected and physically sorted and more than 480 samples of C&D were visually characterized as part of this Study. **Exhibit 1** summarizes the overall MSW composition for materials disposed in Iowa (percent by weight) based on the results of the physical sort performed for this Study.

Exhibit 1. Overall Statewide MSW Material Composition



Exhibits 2 & 3 summarize the waste composition data for the residential and ICI waste streams, respectively. Detailed material composition profiles for these individual generating sectors are provided in the results section of this report.

Exhibit 2. Residential Statewide MSW Material Composition

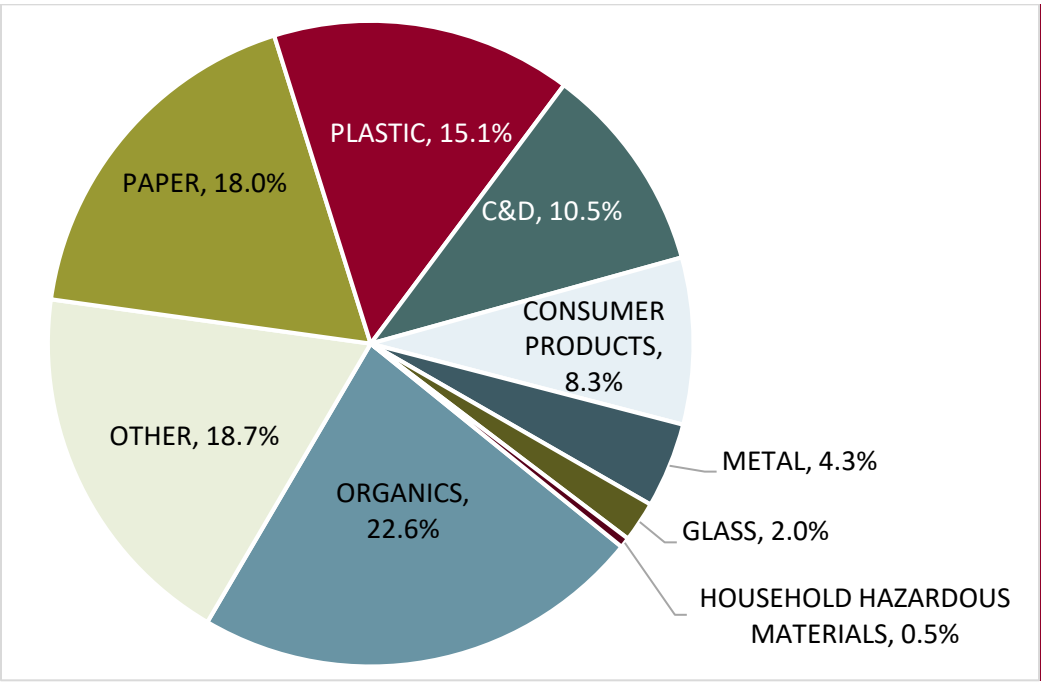


Exhibit 3. ICI Statewide MSW Material Composition

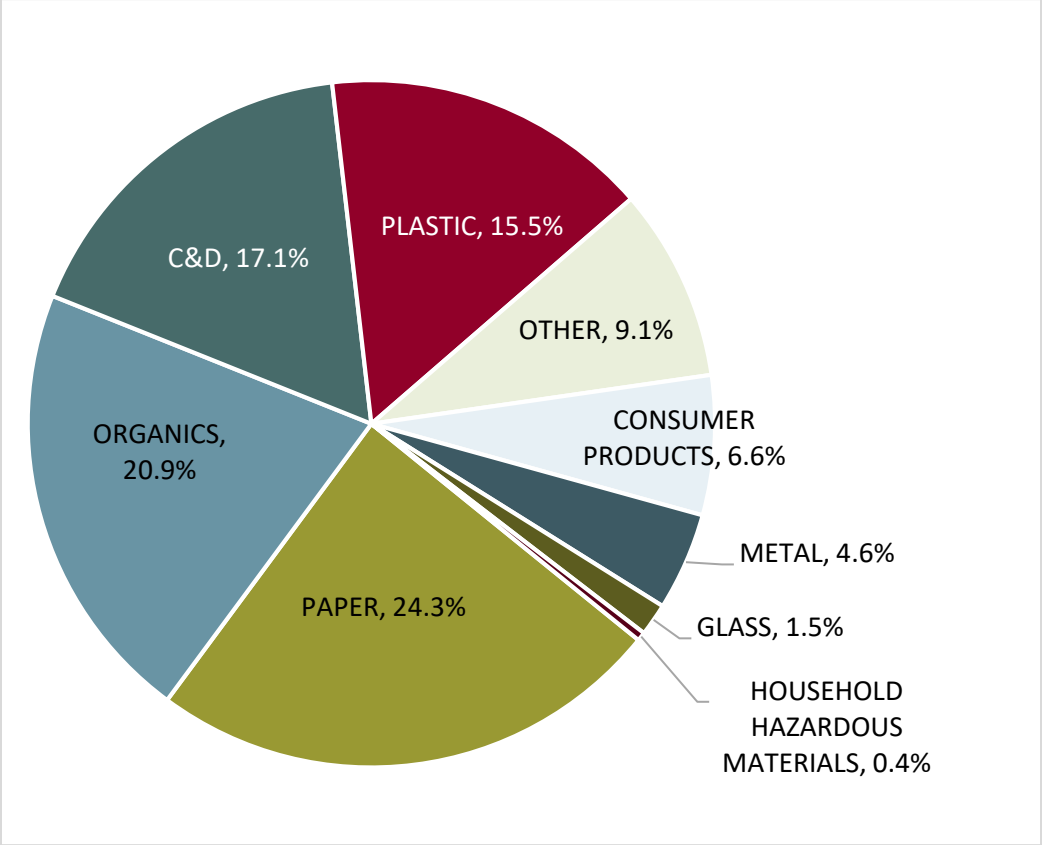


Table 1 shows the top five material components for the overall statewide MSW composition that comprised the largest portion of materials identified in this Study.

Table 1. Top Five Material Components Comprising Residential, ICI, and Overall Statewide Material Composition

No.	Residential	ICI	Overall Statewide
1	**Food Waste[1]** 19.1%	**Food Waste[1]** 19.2%	**Food Waste[1]** 19.2%
2	**Plastic Film[2]** 7.1%	**OCC and Kraft Paper** 9.9%	**Plastic Film[2]** 7.7%
3	**Textiles and Leather** 6.3%	**Plastic Film[2]** 8.1%	**OCC and Kraft Paper** 7.5%
4	**Diapers** 4.8%	**Wood – Treated** 6.0%	**Textiles and Leather** 5.0%
5	**Mixed Recyclable Paper** 4.7%	**Compostable Paper** 5.4%	**Compostable Paper** 5.0%
Total	**42.0%**	**48.6%**	**44.4%**

[1]Food waste is both Food Waste – Packaged and Food Waste – Loose.
[2]Plastic Film includes Retail Shopping Bags and Plastic Film.

Table 2 provides a more detailed breakdown of the MSW characterization results for all material components measured. The data presented in the exhibit and table are aggregated from the residential and ICI waste streams and represents the overall MSW waste stream. It is to note that the C&D material category is only C&D materials found in the physical sort of residential and ICI waste. The C&D visual characterization results can be seen in **Exhibit 5**.

The mean percentage for each material category (i.e. paper, plastic, metal, etc.) equals the sum of the mean percentages for the individual material components. This is not true for the confidence intervals, which are calculated individually for each material component. The confidence intervals for material categories are calculated from the mean percentage of that category and thus will not equal the sum of the corresponding individual waste components.

Table 2. Overall Statewide MSW Waste Composition – Detailed

Material Categories	Material Components	Mean Composition	Standard Deviation	90% Confidence Limits	
				Lower	Upper
PAPER					
	Compostable Paper	5.0%	3.2%	4.8%	5.3%
	High Grade Office Paper	1.2%	3.7%	0.9%	1.5%
	Mixed Recyclable Paper	4.4%	6.1%	4.0%	4.9%
	Newsprint	0.3%	0.7%	0.2%	0.3%
	Magazines/Catalogs	0.5%	1.3%	0.4%	0.6%
	OCC and Kraft Paper	7.5%	8.5%	6.9%	8.1%
	Aseptic/Gable Top Containers	0.6%	1.0%	0.5%	0.7%
	Polycoated Paper	1.2%	1.9%	1.1%	1.4%
	Other Non-Recyclable Paper	1.0%	1.6%	0.9%	1.1%
	Total Paper	**21.7%**	12.3%	20.8%	22.6%
PLASTIC					
	#1 PET IA Deposit Beverage Containers	0.2%	0.2%	0.2%	0.3%
	#1 PET Beverage Containers	0.8%	0.6%	0.8%	0.9%
	#1 PET Other Non-Beverage Containers	0.5%	0.4%	0.5%	0.5%
	#2 HDPE Natural Containers	0.4%	0.4%	0.3%	0.4%
	#2 HDPE Colored Containers	0.6%	1.1%	0.5%	0.7%
	#3 PVC	0.1%	1.6%	<0.1%	0.2%
	#4 LDPE	<0.1%	0.9%	<0.1%	0.1%
	#5 PP	1.4%	0.9%	1.3%	1.4%
	#6 PS	0.5%	0.6%	0.4%	0.5%
	#7 Other/Unknown Plastic	0.2%	0.3%	0.2%	0.2%
	Expanded Polystyrene	0.6%	0.9%	0.5%	0.7%
	Retail Shopping Bags	0.6%	0.5%	0.6%	0.6%
	Other Plastic Film	7.1%	6.4%	6.6%	7.6%
	Other Plastic Products	2.3%	4.0%	2.0%	2.5%
	Total Plastic	**15.3%**	9.0%	14.6%	16.0%
METAL					
	Aluminum IA Deposit Beverage Containers	0.5%	0.5%	0.5%	0.6%
	Aluminum Beverage Containers	<0.1%	0.1%	<0.1%	<0.1%
	Ferrous Food and Beverage Containers	0.5%	0.8%	0.4%	0.6%

Material Categories	Material Components	Mean Composition	Standard Deviation	90% Confidence Limits	
				Lower	Upper
	Aluminum Foil and Foil Containers	0.2%	0.2%	0.1%	0.2%
	Other Aluminum Containers	0.1%	0.3%	0.1%	0.2%
	Other Ferrous Scrap Metals	2.9%	5.2%	2.6%	3.3%
	Other Non-Ferrous Scrap Metals	0.1%	0.6%	0.1%	0.2%
	Total Metal	**4.5%**	5.3%	4.1%	4.9%
GLASS					
	Glass IA Deposit Containers	0.8%	1.2%	0.7%	0.9%
	Clear Glass Containers	0.5%	0.7%	0.4%	0.5%
	Green Glass Containers	<0.1%	0.2%	<0.1%	<0.1%
	Brown/Other Colored Glass Containers	<0.1%	0.2%	<0.1%	<0.1%
	Other Mixed Glass	0.4%	2.5%	0.2%	0.5%
	Total Glass	**1.7%**	1.6%	1.6%	1.8%
C&D					
	Wood - Untreated	2.3%	8.5%	1.7%	3.0%
	Wood - Treated	4.9%	10.1%	4.1%	5.6%
	Plastic Lumber	0.2%	2.1%	<0.1%	0.3%
	Insulation	<0.1%	0.6%	<0.1%	<0.1%
	Asphalt Paving	<0.1%	0.3%	<0.1%	<0.1%
	Soil, Rock, Sand	1.4%	4.4%	1.0%	1.7%
	Brick, Ceramics, Porcelain (fixtures, tile, etc.)	0.5%	3.1%	0.3%	0.7%
	Concrete	0.7%	3.2%	0.4%	0.9%
	Asphalt Roofing	0.3%	3.7%	<0.1%	0.6%
	Drywall Gypsum Board	0.4%	2.9%	0.2%	0.6%
	Carpet and Carpet Padding	2.0%	8.8%	1.3%	2.6%
	Mattresses	0.3%	1.7%	0.1%	0.4%
	Furniture	1.5%	6.5%	1.0%	1.9%
	Total C&D	**14.4%**	20.4%	12.9%	15.9%
ORGANICS					
	Yard Waste	2.5%	7.4%	1.9%	3.0%
	Food Waste - Loose	14.6%	12.7%	13.6%	15.5%
	Food Waste - Packaged	4.6%	9.5%	3.9%	5.3%
	Total Organics	**21.6%**	17.6%	20.3%	22.9%
CONSUMER PRODUCTS					
	Television - LCD	<0.1%	0.1%	<0.1%	<0.1%

Material Categories	Material Components	Mean Composition	Standard Deviation	90% Confidence Limits	
				Lower	Upper
	Television - CRT	<0.1%	<0.1%	<0.1%	<0.1%
	Television Peripherals	<0.1%	0.1%	<0.1%	<0.1%
	Computer Monitor - LCD	<0.1%	0.3%	<0.1%	<0.1%
	Computer Monitor - CRT	<0.1%	<0.1%	<0.1%	<0.1%
	Computers - Desktop and Laptop	<0.1%	0.3%	<0.1%	<0.1%
	Computer Peripherals	<0.1%	0.4%	<0.1%	<0.1%
	Computer Printers	<0.1%	0.6%	<0.1%	<0.1%
	Audio Equipment	<0.1%	0.2%	<0.1%	<0.1%
	Electronic Gaming Equipment	<0.1%	<0.1%	<0.1%	<0.1%
	Cell Phone and Chargers	<0.1%	0.1%	<0.1%	<0.1%
	Other Plug-in Electronics	0.3%	1.1%	0.2%	0.4%
	Other "Smart" Devices - with chip	<0.1%	<0.1%	<0.1%	<0.1%
	Other Electrical and Household Appliances	0.5%	2.5%	0.3%	0.7%
	Textiles and Leather	5.0%	8.2%	4.4%	5.6%
	Rubber	1.3%	5.6%	0.9%	1.7%
	Total Consumer Products	**7.3%**	10.7%	6.5%	8.1%
HOUSEHOLD HAZARDOUS MATERIALS					
	Automotive Products	0.2%	1.8%	<0.1%	0.3%
	Household Cleaners	<0.1%	0.3%	<0.1%	<0.1%
	Lead Acid Batteries	<0.1%	0.1%	<0.1%	<0.1%
	Mercury Containing Products	<0.1%	0.2%	<0.1%	<0.1%
	Lithium Batteries	<0.1%	<0.1%	<0.1%	<0.1%
	Other Batteries	<0.1%	<0.1%	<0.1%	<0.1%
	Paints and Solvents	0.1%	1.0%	<0.1%	0.2%
	Pesticides (insecticides, herbicides, fungicide)	<0.1%	<0.1%	<0.1%	<0.1%
	Sharps	<0.1%	<0.1%	<0.1%	<0.1%
	Prescription Medications	<0.1%	0.2%	<0.1%	<0.1%
	Total Household Hazardous Materials	**0.4%**	2.1%	0.3%	0.6%
OTHER					
	Diapers	3.0%	3.6%	2.8%	3.3%
	Other Organics	1.5%	5.4%	1.1%	1.9%
	Other Inorganics	2.0%	4.2%	1.7%	2.3%

Material Categories	Material Components	Mean Composition	Standard Deviation	90% Confidence Limits	
				Lower	Upper
	Other Consumer Products	0.2%	0.8%	0.1%	0.2%
	Other C&D	0.8%	6.0%	0.3%	1.2%
	Other HHMs	<0.1%	<0.1%	<0.1%	<0.1%
	Fines	5.5%	3.1%	5.3%	5.7%
	Total Other	**13.0%**	9.9%	12.3%	13.7%
	TOTAL	**100.0%**			

Table 3 provides a list of the top ten most predominant material components as calculated for each of the DNR statewide characterization studies for the overall statewide MSW waste stream. The mean percentages are shown in the table along with the cumulative percent of these ten material components. These materials have consistently accounted for about two-thirds of the waste disposed of in Iowa.

Table 3. Predominant Material Components – Overall Statewide MSW

2022		2017		2011		2005		1998	
Pct.	Material	Pct.	Material	Pct.	Material	Pct.	Material	Pct.	Material
19.1%	Food Waste[1]	20.0%	Food Waste[1]	13.0%	Food Waste	10.6%	Food Waste	10.7%	Food Waste
7.7%	Plastic Film[2]	8.7%	Plastic Film[2]	9.0%	OCC and Kraft Paper	8.5%	OCC and Kraft Paper	10.3%	Non-Rec. Paper
7.5%	OCC and Kraft Paper	7.6%	Compostable Paper	6.7%	Plastic Film[2]	7.0%	Mixed Rec. Paper	8.5%	OCC and Kraft Paper
5.5%	Fines	6.1%	Mixed Rec. Paper	6.1%	Compostable Paper	6.6%	Plastic Film[2]	7.5%	Other Plastic Products
5.0%	Textiles and Leather	4.8%	Fines	5.4%	Untreated Wood	6.5%	Compostable Paper	5.4%	Mixed Rec. Paper
5.0%	Compostable Paper	4.6%	OCC and Kraft Paper	5.4%	Construction/ Demolition[3]	6.0%	Other Plastic Products	5.2%	Fines
4.9%	Wood - Treated	4.1%	Other Organic	5.3%	Other Plastic Products	5.5%	Construction/ Demolition[3]	4.8%	Construction/ Demolition[3]
4.4%	Mixed Recyclable Paper	4.1%	Textiles and Leather	4.6%	Yard Waste	4.9%	Textiles and Leather	4.8%	Plastic Film
3.0%	Diapers	3.5%	Diapers	4.1%	Textiles and Leather	4.6%	Wood - Treated	4.2%	Textiles and Leather

2022		2017		2011		2005		1998	
2.9%	Other Ferrous Scrap Metals	3.1%	Other Plastic Products	3.8%	Wood - Treated	4.0%	Newsprint	3.6%	Wood - Treated
65.1%	**2022 Cumulative Percent**	**66.6%**	**2017 Cumulative Percent**	**63.7%**	**2011 Cumulative Percent**	**68.4%**	**2005 Cumulative Percent**	**65.0%**	**1998 Cumulative Percent**

[1]Food Waste was divided into food waste – loose and food waste – packaged in 2017 and 2022.
[2]Plastic Film was divided into retail shopping bags and other plastic film in 2011, 2017, and 2022.
[3]Demolition/Renovation/Construction material category was divided into asphalt pavement; brick, rock, and concrete; asphalt roofing; drywall, gypsum board; carpet and carpet padding; and other C&D in 2011 and 2017. In 2022, it was further divided into plastic lumber; insulation; asphalt paving; soil, rock, and sand; brick, ceramics, and porcelain; concrete; asphalt roofing; drywall gypsum board; carpet and carpet padding; mattresses; and furniture.

In Iowa, specific bottles and cans are classified as deposit/redemption or non-deposit/non-redemption. Deposit/redemption containers typically contain carbonated and alcoholic beverages. Non-deposit/non-redemption containers typically contain non-carbonated and non-alcoholic beverages. As part of the physical portion of the Study, the number of deposit and non-deposit containers identified in the physically sorted samples were counted as well as weighed. The Study counted a total of 34,708 containers of which 17,739 were identified as deposit containers and 16,969 were identified as non-deposit containers. **Exhibit 4** shows the total percentage of deposit and non-deposit containers counted as part of the physical sort efforts.

Exhibit 4. Total Percentage of Deposit and Non-Deposit Container Counts

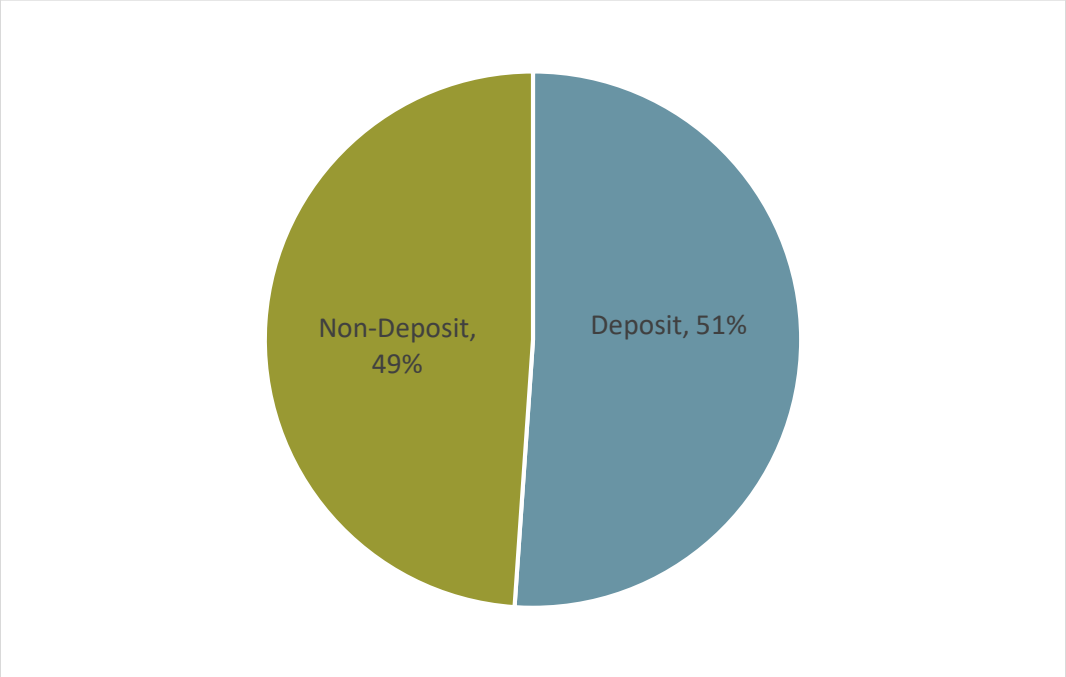
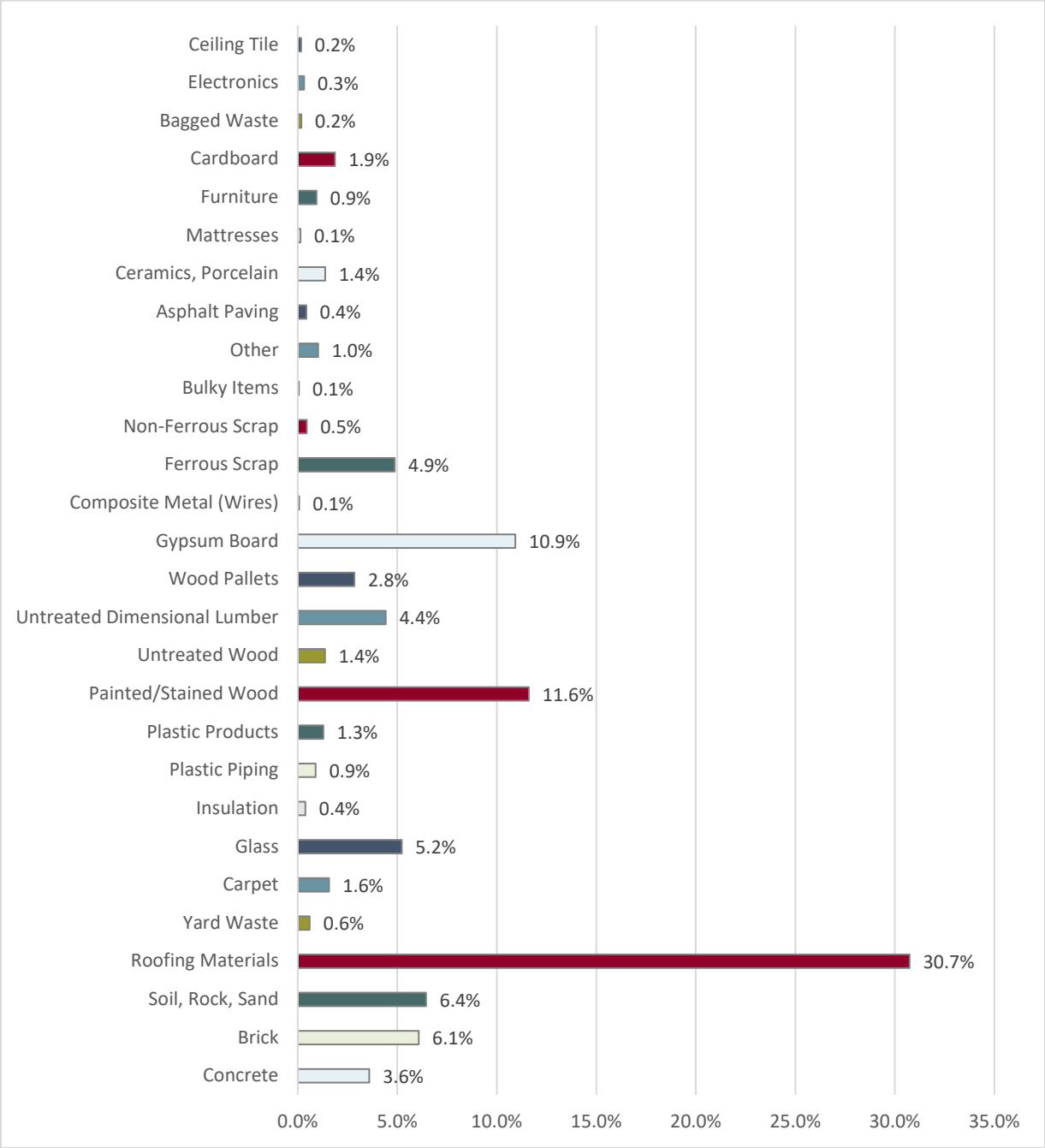


Exhibit 5 summarizes the overall C&D composition by material component (percent of estimated weight) identified as part of the visual characterizations completed for this Study.

Exhibit 5. Overall Statewide C&D Material Composition[1]



[1]Categories that represent less than 0.1% of the overall composition are not included in the graph. Those categories are: Appliances and Plastic Lumber.

2 INTRODUCTION

This report provides the methods used to collect the information and determine the results of the Study. The report is organized in the following sections:

- **Background:** The background section of the report includes Iowa material generation and disposal, and other data used to extrapolate the results of this Study to develop a composition profile for the entire state, and similarities/differences from previous studies.

- **Methods:** This section contains information on the generating sectors analyzed, the number of sampling targets and how they were stratified, material categories and components, host facilities and schedule of field activities, and information on field sampling and sorting protocols.

- **Results:** This section provides detailed results about the composition of material disposed of in the State of Iowa. Results are presented graphically as well as in tables for a more detailed presentation of the data. Results are presented by the residential and ICI sectors as well as aggregated overall for the state.

- **Comparison to Previous Studies:** This section compares the results from this Study to previous statewide characterization studies. This discussion includes notes on how portions of the waste stream have changed over the last 20 years and summarizes the top ten material components for each of the previous statewide studies.

- **Conclusions:** This section provides SCS's conclusions on how the Study achieved the desired objectives.

- **Recommendations:** This section outlines SCS's recommendations on studies that could be undertaken by DNR, local governments, or other stakeholders in the future.

- **Appendices:** The appendices include supplemental materials relevant to the Study.

3 BACKGROUND

The DNR has a long history of tracking the amount and components of MSW disposed of at landfills across the State of Iowa. For the last two decades, the DNR has commissioned characterization studies to quantitatively and qualitatively measure the disposed materials. This Study aimed to mirror previous studies completed in 1998, 2005, 2011, and 2017 in terms of documenting MSW disposal. The results of this Study will be used by DNR and local governments to make decisions on waste diversion programs that can be expanded and implemented to further divert material from disposal. The following are the guiding principles for carrying out the characterization study activities:

1. Develop a 2022 statewide material characterization profile by weight for materials currently disposed at Iowa disposal facilities, including obtaining information on the residential and ICI sectors and how they differ;

Iowa Department of Natural Resources
Environmental Protection Commission

Item #12 **INFORMATION**

TOPIC **Environmental Management System (EMS) Program**
Fiscal Year 2022 Annual Report

The DNR Environmental Management System (EMS) FY2022 Annual Report (Report) is being submitted per the requirement of Iowa Code Chapter 455J.7(4) which states, "The department shall prepare an annual report citing the results and costs of the program for submittal to the commission by January 1, 2018, and by January 1 each year thereafter."

The Report documents that DNR implemented the program and provided support and resources for its sixteen EMS-participating agencies. As part of the Report, DNR reviewed the individual annual reports submitted by each participant, describing their active pursuit for continuous improvement in the program's six environmental component areas.

November 15, 2022

Laurie Rasmus, Program Planner
Financial and Business Assistance, Land Quality Bureau
Environmental Services Division

ENVIRONMENTAL MANAGEMENT SYSTEM

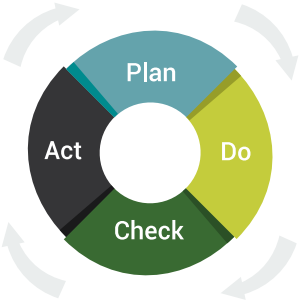
ANNUAL REPORT FISCAL YEAR 2022

www.iowa.dnr.gov/swems

The **Solid Waste Environmental Management System (EMS)** program is a continuous improvement program—measuring environmental performance in six program components. Participating solid waste agencies implement a management system throughout their operations and organizations—following a framework of 10 elements.

The EMS program—an approach that rewards environmental stewardship efforts beyond waste reduction—is an alternative to **Solid Waste Comprehensive Planning**. Sixteen solid waste agencies – serving more than half of Iowa's population—voluntarily participate by pursuing local environmental goals.

FOLLOWING A CYCLE OF CONTINUOUS IMPROVEMENT



ACTIVELY PURSUING 6 PROGRAM COMPONENTS

- Organics Management
- Greenhouse Gas Reduction
- Household Hazardous Materials Collection
- Recycling Services
- Water Quality Improvement
- Environmental Education

IMPLEMENTING A FRAMEWORK OF 10 ELEMENTS

DNR PROGRAM SUPPORT

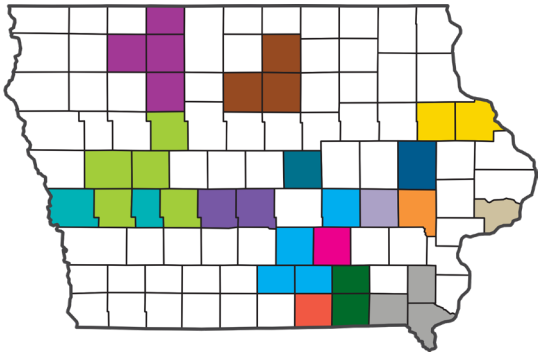
DNR supports program participants with grant opportunities and by providing training workshops, an annual conference, technical assistance and external auditing services.

In FY2022, DNR developed a Guide to Objectives and Targets and introduced this new resource to participants during the Summer Workshop. An accompanying form—to streamline documenting and reporting objectives/targets—was also introduced and widely adopted by participants.

FY2022 EMS PROGRAM COSTS

Third-party external auditing	$35,000
Technical assistance and participant training/support	$49,476
Grant awards	$331,576
TOTAL	**$416,052**

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) PROGRAM PARTICIPANTS



CRLCSWA
Cedar Rapids Linn County Solid Waste Agency

DMASWA
Dubuque Metropolitan Area Solid Waste Agency

GRRWA
Great River Regional Waste Authority

HCLC
Harrison County Landfill Commission

ICLF
Iowa City Landfill and Recycling Center

LNI
Landfill of North Iowa

MCSWMC
Mahaska County Solid Waste Management Commission

MWA
Metro Waste Authority

NPRPA
Northern Plains Regional Planning Area

OWCSWC
Ottumwa/Wapello County Solid Waste Commission

RASWC
Rathbun Area Solid Waste Commission

REIC
Iowa County Regional Environmental Improvement Commission

SCISWA
South Central Iowa Solid Waste Agency

SWMCMC
Solid Waste Management Commission of Marshall County

WCISWMA
West Central Iowa Solid Waste Management Association

WCSC
Waste Commission of Scott County

PARTICIPANT ACHIEVEMENTS

At a local level, participants work to achieve quantifiable objectives and targets—resulting in environmental changes within their service areas.

ORGANICS MANAGEMENT

EMS participants work to divert organic material from landfills by reusing material or processing it into beneficial products, like compost or mulch, which helps enrich soil, reduce erosion and improve plant growth.

- **CRLCSWA** sold and distributed more than 10,000 tons of compost to residents through their promotional efforts, including a radio ad campaign and outreach at the local farmers' market.
- To reduce contamination in curbside collection of yard waste and food scrap, **ICLF** launched an outreach campaign that cut contamination by half.
- **SCISWA** equipped two elementary school classrooms with vermicomposting towers and learning resources. Students fed and cared for worms, which ate and digested food scraps and bedding, before eliminating them as a beneficial soil. This project diverted 89 pounds of organic material from the landfill.

CRLCSWA staff loading finished compost

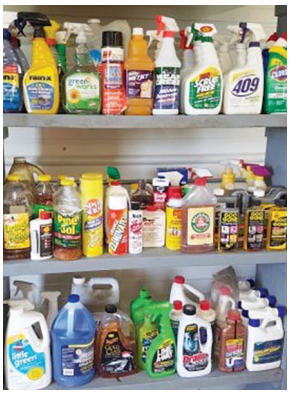
Recovery of clean wood at MCSWMC

- Working with a greenhouse tomato grower, **LNI** diverted 203 tons of organic material from the landfill that was used instead as composting feedstock.
- **MCSWMC** collected 48,180 pounds of pallets for reuse and clean wood material to be processed into bedding through a recovery program incentivized with a tipping fee discount.

HOUSEHOLD HAZARDOUS MATERIALS COLLECTION

Each EMS collects household hazardous material, keeping pollutants out of the landfill and decreasing waste. Much of the material, like partially-used paint or household chemicals, becomes available in the local solid waste agency's swap shop to be used by someone else.

- GRRWA updated their swap shop with new shelving, investigated products in highest demand and promoted their swap shop on Facebook.
- DMASWA reestablished their Reuse Shed, driving down costs for material diverted from the landfill and saving more than $3,000.
- Benefiting from promotional efforts on Facebook and in the local newspaper, REIC collected more than 2,000 pounds of material, a 75 percent increase from the previous year.
- OWCSWC increased participation in their program by 7 percent, logging in 240 participants over 18 months.



Partially used products available for reuse at DMASWA

WATER QUALITY IMPROVEMENT

EMS participant efforts focused on protecting water as a natural resource and removing pollutants.

Constructed wetlands in partnership with WCSC

- Recruiting volunteers, WCSC conducted two major clean-up efforts, removing nearly 400 tires and more than 70 bags of debris with project partner Nahant Marsh Education Center. After the clean-ups, 12 acres of wetlands were constructed—providing wildlife habitat, intercepting runoff and removing pollutants from surface water.
- To help protect a local creek, MWA installed a bioreactor to filter water running onto their landfill from a neighboring field. A water sample test showed that the bioreactor filter, a trench of woodchips where microorganisms remove excess nitrates from flowing water, removed 90 percent of nitrates in the runoff.

Installing a bio-reactor at MWA

GREENHOUSE GAS REDUCTION

Greenhouse gas emissions directly correlate to energy and fuel use. To reduce emissions, EMS participants focused on reducing energy needs and reliance on non-renewable sources.

- With routine maintenance and simple installations, MCSWMC reduced their kWh usage by 29 percent and their propane usage by 52 percent by minimizing unnecessary lighting, cleaning the air conditioning condenser, moderating thermostat settings and installing door draft stoppers.

WCSC's new watering truck

- Through improvements to methods and equipment used to water roads at the landfill, necessary to minimize dust, WCSC cut fuel usage by more than 70 percent, saving nearly 300 gallons of fuel in 12 months. The improvement process, which included running a pilot with a rental truck and then purchasing a used watering truck, reduced the operation's water usage by 38 percent and staff time by 67 percent.
- MWA installed a solar energy system at their central office. Based on real-time data, MWA projects the system will supply 25 percent of the site's electricity in the coming year.

RECYCLING SERVICES

Collection efforts are key to recycling. EMS efforts focused on classic material separation, especially paper, plastic, glass and metal.

- Building on existing student-led recycling systems established by WCISMA at two local schools, students separated and weighed more than 11,800 pounds of classroom materials, which was then processed at WCISWMA's recycling facility.

Recycling in schools with WCISWMA

RECYCLING SERVICES (cont.)

- Both MCSWMC and SWMCMC collected 20 tons of material, including paper, cardboard, plastic, glass and metal containers at new convenient drop-off recycling sites established at their respective landfills with EMS grant funding.
- ICLF used EMS grant funds to open three new drop-off sites for glass recycling and promoted the expansion with ads on Iowa Public Radio and by distributing informational drink coasters.
- OWCSW recovered almost 40 tons of scrap metal that was hauled to the landfill by pulling it out at the active face for recycling.

Drop-off recycling site at MCSWMC

ENVIRONMENTAL EDUCATION

Environmental education activities, including public outreach and promotion, are integral to the success of objectives/targets in all EMS program components. Environmental education is also its own component area—with each participating agency working to increase awareness, grow knowledge and create behavior change in their communities.

- To better serve the 20 percent of the county's population that speaks Spanish, SWMCMC hired a professional translator, producing Spanish informational publications that were a graphic mirror image of their English publications.
- DMASWA used EMS grant funding to make its website mobile-friendly—resulting in lower bounce rates and doubling the number of new users for their waste search tool.
- To increase awareness of their programs, REIC created a Facebook page and established a baseline for the number of followers, expecting to double that number in the next fiscal year.


LNI giving college students a tour of the landfill

- GRRWA partnered with the local county conservation district to put water test kits in the hands of 72 middle school students for an experiential lesson in water quality.
- LNI focused on providing education about proper management of hazardous waste derived from farming by giving presentations to and hosting 40 students enrolled in environmental science and agriculture classes at the local community college.
- Incorporating the DNR's "I Am a Recycler" campaign into their poster contest, SCISWA engaged 535 elementary school students into drawing "selfies" of themselves actively recycling.

SCISWA's calendar with student "selfie" drawings

BATTERY COLLECTION

EMS participants ramped up their goals for collecting batteries, focusing on separating out batteries that contain hazardous materials—such as rechargeables and lithium batteries—that may ignite or explode if compacted in a landfill or crushed at a recycling facility. By collecting these batteries as a separate stream, not only is material recycled but contaminants are kept out of the landfill.

- CRLCSWA created informational handouts and aired radio commercials, prompting residents to drop off 3,340 pounds of batteries.
- ICLF, LNI and WCISWMA each set-up additional battery drop-off sites in public spaces and by partnering with local businesses, increasing accessibility and convenience for residents.
- MCSWMC started a battery collection program at the landfill, collecting 45 pounds in the first month.
- DMASWA ran a social media campaign in September 2021, engaging 486 people and increasing their annual battery collection to nearly 700 pounds.

LNI's battery collection container

Solid Waste Environmental Management System
Committed to Continuous Improvement

Iowa Department of Natural Resources
Environmental Protection Commission

Item #13

Decision Item

Contract Amendment #1 to 23ESD-WQB-KGree-0001 with United States Geological Survey-Central Midwest Water Science Center.

Commission approval is requested for a contract amendment with United States Geological Survey-Central Midwest Water Science Center, of Iowa City, Iowa.

Amendment #1 **Terms:**
Amendment Amount: $61,0000
Amendment Dates: December 1, 2022 to September 30, 2023
Funding Source(s): EPA 106 water quality monitoring grant (cost center 7173)

Amendment Purpose:
Recently completed analysis of pesticide datasets collected across the upper Midwest (including Iowa) showed widespread presence of Neonicotinoid and Pyrethroid pesticides (Hladik 2014 and Rogers 2016) in Iowa streams. In addition to the spatial consistency of detection of these pesticides, these investigations also found that these pesticides may negatively impact Iowa's aquatic resources. This had led DNR to identify this as a resource concern.

DNR, therefore, has developed targeted monitoring and assessment strategies to help identify the potential range of impacts pesticides are having on our aquatic resources. The DNR intends to deploy a monitoring network that will investigate the presence of Pyrethroid pesticides from a sub selected group of streams with a history of benthic macroinvertebrate sampling. This effort will attempt to accomplish the following:

- To assess the presence of pesticides in streams that have experienced recent declines in the benthic macroinvertebrate community;
- To screen these systems for acute or chronic levels of pesticide concentrations; and
- Provide a base of information for future investigation/assessment monitoring.

The parties propose to enter into this contract amendment to retain the Contractor to assist the DNR in the laboratory analyses of 40 sediment Pyrethroid samples. The samples will be collected by the DNR and shipped to the USGS laboratory for the analyses. The USGS laboratory analysis cost is $1,525 per sample, resulting in a cost of $61,000 for analyses of 40 samples.

Original Contract Purpose:
The original contract included support of a StreamEst mapping application (used to estimate stream flows at ungaged locations), maintenance of and data collection from stream water quality sensors (for nitrate, turbidity, temperature), and maintenance of and data collection from gages measuring stream flow. The original contract does not include any pesticide laboratory analyses.

Original Selection Process Summary:
INTERGOVERNMENTAL – This contract is authorized by 11 IAC 118.4, which states that if another governmental entity has resources available to supply a service sought by a state agency, the state agency may enter into an intergovernmental agreement with the other governmental entity and is not required to use competitive selection.

Contract History:

Original Contract Terms: Amount $311,775.00; Timeframe: October 1, 2022 to September 30, 2023; Purpose: To retain the Contractor to assist the DNR in the collection of real-time surface water flow and water quality concentrations.

Katie Greenstein, Supervisor, Water Quality Bureau
Environmental Services Division
November 15, 2022

United States Department of the Interior
U.S.GEOLOGICAL SURVEY
CENTRAL MIDWEST WATER SCIENCE CENTER
MISSOURI
1400 Independence Rd. MS100
Rolla, MO 65401
ILLINOIS
405 N. Goodwin Ave.
Urbana, IL 61801
IOWA
400 S. Clinton St. Rm 269
Iowa City, IA 52240

October 24, 2022

Katie Greenstein, P.E., Ph.D
Supervisor
Iowa Department of Natural Resources
502 East 9th Street
Des Moines, IA 50319

Dear Ms. Greenstein, P.E., Ph.D:

Enclosed is a signed copy of Amendment 1 to Joint Funding Agreement 23NEJFA124 for Federal Fiscal year 2023. If this is acceptable, please sign the amendment, and return a copy of the agreement to Jon Nania via email (jfnania@usgs.gov) or by mail to the Iowa address above.

This amendment adds $61,000 for the lab analyses of 40 sediment samples for pyrethroids collected and shipped by the Iowa DNR to the USGS California Lab.

We appreciate your consideration of our cooperative program. If you have any questions about the work performed under this agreement or administrative concerns, please contact Jon Nania, Deputy Director at 319-358-3655.

Sincerely,

Jon Nania
Deputy Director
Central Midwest Water Science Center

Enclosures

USGS Agreement #: 23NEJFA124
Iowa DNR Agreement#: 23ESD-WQB-KGree-0001
Customer #: 6000001156
TIN: 42-6004572
Project: NE009KT
Fixed Cost Agreement: Yes

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
AMENDMENT OF JOINT FUNDING AGREEMENT FOR WATER RESOURCES INVESTIGATIONS

This amendment is for the agreement dated 9/21/2022.

1. The below paragraphs are changed from the original agreement:

Paragraph 1b. Name: Water Quality Monitoring Data Collection
Funding: IDNR: **$158,160** USGS CMF: $59,240 Total: **$217,400**

Table 6a:

Party	Amount of Contribution
USGS	$130,880
IDNR	**$372,775**
Total	**$503,655**

Table 9a:

Payment Period	Amount of Payment
First Quarter (October 1, 2021, through December 31, 2021)	**$93,193.75**
Second Quarter (January 1, 2022, through March 31, 2022)	**$93,193.75**
Third Quarter (April 1, 2022, through June 30, 2022)	**$93,193.75**
Fourth Quarter (July 1, 2022, through September 30, 2022)	**$93,193.75**
Total Agreement Payment	**$372,775**

Footnote to Table 1, Appendix A

Total Water-Quality Cost:	
USGS CMF:	$59,240
IDNR:	$**158,160***
Water Quality Total:	$**217,400**

***61,000** of this amount is for the lab analyses of 40 sediment samples for pyrethroids collected and shipped by the Iowa DNR to the USGS California Water Science Center.

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UNITED STATES DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY	IOWA DEPARTMENT OF NATURAL RESOURCES
Acting for! (Signature)	(Signature)
Amy Beussink (Name)	(Name)
Director, Central Midwest WSC (Title)	(Title)
10/24/22 (Date)	(Date)

Iowa Department of Natural Resources

Environmental Protection Commission

ITEM **#14** **DECISION**

TOPIC **Notice of Intended Action - 567 IAC chapters 100, 102, 104, 120 and 567 IAC 114.29 and 567 IAC 115.29 - Cleanup of Solid Waste Chapters**

The Commission is requested to approve this Notice of Intended Action to reduce and consolidate administrative rules related to solid waste.

The proposed rules have been approved to move forward by the Governor's Office.

Chapters 100, 102, 104, 114, 115 and 120 regulate solid waste. This proposed rule making will reduce and consolidate these regulations. Specifically, the proposed rulemaking rescinds redundant or outdated rules, consistent with Iowa Code section 17A.7(2)'s five-year rule review directive. All Code-based definitions are being stricken and a reference to the statute has been inserted. The proposed amendments consolidate rules scattered across three chapters into one chapter. Chapter 104 in its entirety is being rescinded, although the requirements for solid waste incinerator operator certification are being moved to chapter 102. Chapter 120 will be simplified by having only one type of permit for the remediation of petroleum contaminated soil. These changes will result in a reduction of over 4,000 words from the administrative code.

No new policy proposals are included in this rulemaking.

Timeline for rulemaking

- A proposed rule will come to the Commission as a Notice of Intended Action for decision on November 15, 2022.
- A public hearing will be held via conference call on January 3, 2023 at 1:30 pm.
- Written public comments will be accepted through close of business on January 3, 2023.
- A responsiveness summary will be completed by January 16, 2023 if public comments are received.
- Estimated return to Commission for proposed Adopted and Filed rule, February 21, 2023
- Anticipated effective date April 26, 2023

Theresa Stiner, Environmental Specialist Senior
Solid Waste and Contaminated Sites Section, Land Quality Bureau
Environmental Services Division

October 31, 2022

NOIA Attachments - NOIA and rulemaking package (includes Fiscal/Jobs impact) as submitted to IGOV for preclearance

ENVIRONMENTAL PROTECTION COMMISION[567]

Notice of Intended Action

The Environmental Protection Commission (Commission) hereby proposes to amend Chapter 100, "Scope of Title — Definitions — Forms — Rules of Practice," Chapter 102, "Permits," Chapter 104, "Sanitary Disposal Projects with Processing Facilities," Chapter 114, "Sanitary Landfills: Construction and Demolition Wastes," Chapter 115, "Sanitary Landfill: Industrial Monofills," and Chapter 120 "Landfarming of Petroleum Contaminated Soil" Iowa Administrative Code.

Legal Authority for Rule Making

This rule making is proposed under the authority provided in Iowa Code sections 455B.304, 455B.383, and 455D.7(1).

State or Federal Law Implemented

This rule making implements, in whole or in part, Iowa Code sections 455B.301A, 455B.304, 455B.307, 455B.383, and Iowa Code Chapter 455D.

Purpose and Summary

Chapters 100, 102, 104, 114, 115 and 120 regulate solid waste. This proposed rule making will reduce and consolidate these regulations. Specifically, the proposed rulemaking rescinds redundant or outdated rules, consistent with Iowa Code section 17A.7(2)'s five-year rule review directive. It also consolidates rules scattered across three chapters into one chapter. Chapter 104 in its entirety is being rescinded, and the requirements for solid waste incinerator operator certification are being moved to Chapter 102. This strategic streamlining will make all of the regulations more intuitive and easier to read and understand.

No new policy proposals are included in this proposed rule making.

Fiscal Impact

This rule making has no fiscal impact to the state of Iowa. A copy of the fiscal impact statement is available from the Department of Natural Resources (Department) upon request.

Jobs Impact

After analysis and review of this rule making, no impact on jobs has been found. A copy of the jobs impact statement is available from the Department upon request.

Waivers

Any person who believes that the application of the discretionary provisions of this rule making would result in hardship or injustice to that person may petition the Department for a waiver of the discretionary provisions, if any, pursuant to 561-Chapter 10.

Public Comment

Any interested person may submit comments concerning this proposed rule making. Written comments in response to this rule making must be received by the Department no later than 4:30 p.m. on January 3, 2023. Comments should be directed to:

Theresa Stiner
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319
Email: Theresa.Stiner@dnr.iowa.gov

Public Hearing

A public hearing at which persons may present their views orally will be held by conference call as follows. Persons who wish to attend the conference call should contact Theresa Stiner at Theresa.Stiner@dnr.iowa.gov. A conference call number will be provided prior to the hearing. Persons who wish to make oral comments at the conference call public hearing must submit a request to Ms. Stiner prior to the hearing to facilitate an orderly hearing.

January 3, 2023 1:30 pm	Virtual Meeting / Conference call

Persons who wish to make oral comments at the public hearing may be asked to state their names for the record and to confine their remarks to the subject of this proposed rule making.

Any persons who intend to attend the hearing and have special requirements, such as those related to hearing impairments, should contact the Department and advise of specific needs.

Review by Administrative Rules Review Committee

The Administrative Rules Review Committee, a bipartisan legislative committee which oversees rule making by executive branch agencies, may, on its own motion or on written request by any individual or group, review this rule making at its regular monthly meeting or at a special meeting. The Committee's meetings are open to the public, and interested persons may be heard as provided in Iowa Code section 17A.8(6).

The following rule-making actions are proposed:

ITEM 1. Amend **567—Chapter 100**, title, as follows:

SCOPE OF TITLE — DEFINITIONS ~~— FORMS —~~ RULES OF PRACTICE

ITEM 2. Amend rule 567—100.1(455B, 455D) as follows:

567—100.1 (455B,455D) Scope of title. The department has jurisdiction over the management, dumping, depositing, and disposal of solid waste by establishing standards for sanitary disposal projects and by regulating solid waste through a system of general rules and specific permits. The construction and operation of any sanitary disposal project requires a specific permit from the department. This chapter provides general definitions applicable to ~~this~~ title VIII (solid waste management and disposal) of 567 IAC and general conditions of solid waste disposal ~~and rules of practice, including forms, applicable to the public in the department's administration of the subject matter of this title~~.

~~Chapter 101 contains the general requirements relating to solid waste management and disposal. Chapter 102 pertains to the permits which must be obtained in order to construct and operate a sanitary disposal project. Chapter 103 details the requirements for all sanitary landfills accepting only coal combustion residue. Chapter 104 details the requirements for sanitary disposal projects with processing facilities. Chapter 105 sets forth the requirements for the planning and operation of all composting facilities. Chapter 106 pertains to design and~~

~~operating requirements for recycling operations. Chapter 107 sets forth the rules pertaining to beverage container deposits and approval of redemption centers. Chapter 108 pertains to the reuse of solid waste. Chapter 109 contains the procedure for the assessment and collection of fees for the disposal of solid waste at sanitary landfills. Chapter 110 contains design, construction, and operation standards for solid waste management facilities. Chapter 112 details the requirements for all sanitary landfills accepting only biosolids. Chapter 113 details the requirements for all sanitary landfills accepting municipal solid waste. Chapter 114 details the requirements for all sanitary landfills accepting only construction and demolition wastes. Chapter 115 details the requirements for all sanitary landfills that are industrial waste monofills. Chapter 117 details the requirements for outdoor storage and processing of waste tires. Chapter 118 governs removal and disposal of PCBs from white goods. Chapter 119 provides requirements for collection and disposal of waste oil. Title VIII, Chapters 120 and 121, govern land application of sludge and other solid waste.~~

This rule is intended to implement Iowa Code section 455B.304 and chapter 455D.

ITEM 3. Amend rule **567—100.2(455B,455D)**, the definition of "Solid waste" as follows:

"Solid waste" has the same meaning as found in Iowa Code section 455B.301. Pursuant to Iowa Code section ~~455B.301(23)*"b,"*~~ 455B.301(29)"*b*", the commission has determined that solid waste includes those wastes exempted from federal hazardous waste regulation pursuant to 40 CFR 261.4(b) as amended through November 16, 2016, except to the extent that any such exempted substances are liquid wastes or wastewater. This definition applies to all chapters within Title VIII. To the extent that there is a conflict, this definition controls.

ITEM 4. Rescind the definition(s) of "Leachate," "Private agency," "Rubble," and "Sanitary landfill" in rule **567—100.2(455B, 455D)**.

ITEM 5. Adopt the following **new** definitions of "Incorporation," "Landfarm," "Landfarm applicator," "Landfarm plot," "Landfarm season," "Landfarming," "Nonstandard PCS," "Petroleum contaminated soil" or "PCS," "Source of PCS," "Standard PCS," "Tar ball," and "Type of PCS" in rule **567—100.2(455B,455D)**:

"Incorporation" means to mix into the soil by tilling, disking, or other suitable means, thereby creating a loose and divided soil texture.

"Landfarm" means the area of land used to landfarm a single application of a particular source and type of PCS. Landfarms are created when a permitted landfarm applicator, or party under their supervision, land applies PCS. No other PCS may be applied within 15 feet of the area of land used as a landfarm until the landfarm is closed pursuant to rule 567—120.12(455B).

"Landfarm applicator" means an entity permitted by the department to land apply PCS to create one or more landfarms.

"Landfarm plot" means the specific operating area of a landfarm upon which a particular source and type of PCS is applied.

"Landfarm season" means the period of the year when the ground is not frozen or snow-covered and runoff from these situations is not expected to transport PCS beyond the landfarm area.

"Landfarming" means a surface-level soil remediation technology for petroleum contaminated soils that reduces concentrations of petroleum constituents through biodegradation to a level safe for human health and the environment. This technology usually involves spreading excavated contaminated soils in a thin layer on the ground surface and stimulating aerobic microbial activity within the soils through aeration. The enhanced microbial activity results in degradation of adsorbed petroleum product constituents through microbial respiration. Some petroleum product constituents volatize during the landfarming process.

"Nonstandard PCS" means soil contaminated with a petroleum product other than gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.

"Petroleum contaminated soil" or *"PCS"* means soil contaminated with petroleum products including, but not limited to, gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.

"Source of PCS" means the contaminated area from which the PCS originated. Examples of a source include, but are not limited to, a specific gas station or spill location.

"Standard PCS" means soil contaminated with gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.

"Tar ball" means a ball or conglomeration of tarlike petroleum constituents. Tar balls may form when PCS that contains a high concentration of long-chain or high molecular weight hydrocarbons is landfarmed.

"Type of PCS" means the specific petroleum product or combination thereof that contaminated the soil. Examples of type include, but are not limited to, gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.

ITEM 6. Rescind and reserve rule **567—100.3(17A,455B)**.

ITEM 7. Rescind rule **567—100.5(455B)**.

ITEM 8. Amend **567—Chapter 102**, title, as follows:

PERMITS AND RULES OF PRACTICE

ITEM 9. Rescind rule 567—102.15(455B) and adopt the following **new** rule in lieu thereof:

567—102.15(455B) Solid waste incinerator operator certification. Solid waste incinerator operators shall be trained, tested, and certified by a department-approved certification program.

102.15(1) A solid waste incinerator operator shall be on duty during all hours of operation of a solid waste incinerator, consistent with the respective certification.

102.15(2) To become a certified operator, an individual shall complete a basic operator training course that has been approved by the department or alternative, equivalent training approved by the department and shall pass a departmental examination as specified by this rule. An operator certified by another state may have reciprocity subject to approval by the department.

102.15(3) A solid waste incinerator operator certification is valid from the date of issuance until June 30 of the following even-numbered year.

102.15(4) Basic operator training course. The required basic operator training course for a certified solid waste incinerator operator shall have at least 12 contact hours and shall address the following areas, at a minimum:

a. Description of types of wastes;

b. Incinerator design;

c. Interpreting and using engineering plans;

d. Incinerator operations;

e. Environmental monitoring;

f. Applicable laws and regulations;

g. Permitting processes;

h. Incinerator maintenance; and

i. Ash and residue disposal.

102.15(5) Alternative basic operator training must be approved by the department. It shall be the applicant's responsibility to submit any documentation the department may require to evaluate the equivalency of alternative training.

102.15(6) Fees.

a. The examination fee for each examination is $20.

b. The initial certification fee is $8 for each one-half year of a two-year period from the date of issuance to June 30 of the next even-numbered year.

c. The certification renewal is $24.

d. The penalty fee is $12.

102.15(7) Examinations.

a. The operator certification examinations will be based on the basic operator training course curriculum.

b. All persons wishing to take the examination required to become a certified operator of a solid waste incinerator shall complete the Operator Certification Examination Application, Form 542-1354. A listing of dates and locations of examinations is available from the department upon request. The application form requires the applicant to indicate the basic operator training course taken. Evidence of training course completion must be submitted with the application for certification. The completed application and the application fee shall be sent to the department addressed to 502 East 9th Street, Des Moines, Iowa 50319. Application for examination must be received by the department at least 30 days prior to the date of examination.

c. A properly completed application for examination shall be valid for one year from the date the application is approved by the department.

d. Upon failure of the first examination, the applicant may be reexamined at the next scheduled examination. Upon failure of the second examination, the applicant shall be required to wait a period of 180 days before taking a subsequent examination.

e. Upon each reexamination when a valid application is on file, the applicant shall submit to the department the examination fee at least ten days prior to the date of examination.

f. Failure to successfully complete the examination within one year from the date of approval of the application shall invalidate the application.

g. Completed examinations will be retained by the department for a period of one year after which they will be destroyed.

h. Oral examinations may be given at the discretion of the department.

102.15(8) Certification.

a. All operators who passed the operator certification examination by July 1, 1991, are exempt from taking the required operator training course. Beginning July 1, 1991, all operators will be required to take the basic operator training course and pass the examination in order to become certified.

b. Application for certification must be received by the department within 30 days of the date the applicant receives notification of successful completion of the examination. All applications for certification shall be made on a form provided by the department and shall be accompanied by the certification fee.

c. Applications for certification by examination which are received more than 30 days but less than 60 days after notification of successful completion of the examination shall be accompanied by the certification fee and the penalty fee. Applicants who do not apply for certification within 60 days of notice of successful completion of the examination will not be certified on the basis of that examination.

d. For applicants who have been certified under other state mandatory certification programs, the equivalency of which has been previously reviewed and accepted by the department, certification without examination will be recommended.

e. For applicants who have been certified under voluntary certification programs in other states, certification will be considered. The applicant must have successfully completed a basic operator training course and an examination generally equivalent to the Iowa examination. The department may require the applicant to successfully complete the Iowa examination.

f. Applicants who seek Iowa certification pursuant to paragraph 102.3(8)*"d"* or 102.3(8)*"e"* shall submit an application for examination accompanied by a letter requesting certification pursuant to this subrule. Application for certification pursuant to this subrule shall be received by the department in accordance with paragraphs 102.3(8)*"b"* and 102.3(8)*"c."*

102.15(9) Renewals. All certificates shall expire every two years, on even-numbered years, and must be renewed every two years to maintain certification. Application and fee are due prior to expiration of certification.

a. Late application for renewal of a certificate may be made provided that such late application shall be received by the department or postmarked within 30 days of the expiration of the certificate. Such late application shall be on forms provided by the department and accompanied by the penalty fee and the certification renewal fee.

b. If a certificate holder fails to apply for renewal within 30 days following expiration of the certificate, the right to renew the certificate automatically terminates. Certification may be allowed at any time following such termination, provided that the applicant successfully completes an examination. The applicant must then apply for certification in accordance with subrule 102.3(8).

c. An operator may not continue to operate a solid waste incinerator after expiration of a certificate without renewal thereof.

d. Continuing education must be earned during the two-year certification period. All certified operators must earn ten contact hours per certificate during each two-year period. The two-year period will begin upon certification.

e. Only those operators fulfilling the continuing education requirements before the end of each two-year period will be allowed to renew their certificates. The certificates of operators not fulfilling the continuing education requirements shall be void upon expiration, unless an extension is granted.

f. All activities for which continuing education credit will be granted must be related to the subject matter of the particular certificate to which the credit is being applied.

g. The department may, in individual cases involving hardship or extenuating circumstances, grant an extension of time of up to three months within which the applicant may fulfill the minimum continuing education requirements. Hardship or extenuating circumstances include documented health-related confinement or other circumstances beyond the control of the certified operator which prevent attendance at the required activities. All requests for extensions must be made 60 days prior to expiration of certification.

h. The certified operator is responsible for notifying the department of the continuing education credits earned during the period. The continuing education credits earned during the period shall be shown on the application for renewal.

i. A certified operator shall be deemed to have complied with the continuing education requirements of this rule during periods that the operator serves honorably on active duty in the military service; or for periods that the operator is a resident of another state or district having a continuing education requirement for operators and meets all the requirements of that state or district for practice there; or for periods that the person is a government employee working as an operator and is assigned to duty outside of the United States; or for other periods of active practice and absence from the state approved by the department.

102.15(10) Discipline of certified operators.

a. Disciplinary action may be taken on any of the following grounds:

(1) Failure to use reasonable care or judgment or to apply knowledge or ability in performing the duties of a certified operator. Duties of certified operators include compliance with rules and permit conditions applicable to incinerator operation.

(2) Failure to submit required records of operation or other reports required under applicable permits or rules of the department, including failure to submit complete records or reports.

(3) Knowingly making any false statement, representation, or certification on any application, record, report or document required to be maintained or submitted under any applicable permit or rule of the department.

b. Disciplinary sanctions allowable are:

(1) Revocation of a certificate.

(2) Probation under specified conditions relevant to the specific grounds for disciplinary action. Additional education or training or reexamination may be required as a condition of probation.

c. The procedure for discipline is as follows:

(1) The department shall initiate disciplinary action. The commission may direct that the department investigate any alleged factual situation that may be grounds for disciplinary action under paragraph 102.15(10)*"a"* and report the results of the investigation to the commission.

(2) A disciplinary action may be prosecuted by the department.

(3) Written notice shall be given to an operator against whom disciplinary action is being considered. The notice shall state the informal and formal procedures available for determining the matter. The operator shall be given 20 days to present any relevant facts and indicate the operator's position in the matter and to indicate whether informal resolution of the matter may be reached.

(4) An operator who receives notice shall communicate verbally, in writing, or in person with the department, and efforts shall be made to clarify the respective positions of the operator and department.

(5) The applicant's failure to communicate facts and positions relevant to the matter by the required date may be considered when appropriate disciplinary action is determined.

(6) If agreement as to appropriate disciplinary sanction, if any, can be reached with the operator and the commission concurs, a written stipulation and settlement between the department and the operator shall be entered into. The stipulation and settlement shall recite the basic facts and violations alleged, any facts brought forth by the operator, and the reasons for the particular sanctions imposed.

(7) If an agreement as to appropriate disciplinary action, if any, cannot be reached, the department may initiate formal hearing procedures. Notice and formal hearing shall be in accordance with 561—Chapter 7 related to contested and certain other cases pertaining to licensee discipline.

102.15(11) Revocation of certificates. Upon revocation of a certificate, application for certification may be allowed after two years from the date of revocation. Any such applicant must successfully complete an examination and be certified in the same manner as a new applicant.

102.15(12) A temporary operator of a solid waste incinerator may be designated for a period of six months when an existing certified operator is no longer available to the facility. The facility must make application to the department, explain why a temporary certification is needed, identify the temporary operator, and identify the efforts which will be made to obtain a certified operator. A temporary operator designation shall not be approved for greater than a six-month period except for extenuating circumstances. In any event, not more than one six-month extension to the temporary operator designation may be granted. Approval of a temporary operator designation may be rescinded for cause as set forth in subrule 102.15(10).

This rule is intended to implement Iowa Code section 455B.304(12).

ITEM 10. Adopt the following **new** rule 567-102.16(455B)

567—102.16(455B) Disruption and excavation of sanitary landfills or closed dumps. No person shall excavate, disrupt, or remove any deposited material from any active or discontinued sanitary landfill or closed dump without first having notified the department in writing.

102.16(1) Notification shall include an operational plan stating the area involved, lines and grades defining limits of excavation, estimated number of cubic yards of material to be excavated, sanitary disposal project where material is to be disposed and estimated time required for excavation procedures.

102.16(2) An excavation shall be confined to an area consistent with the number of pieces of digging equipment and trucks used for haulage.

102.16(3) The disposal of all solid waste resulting from excavation shall be in conformity with Iowa Code chapter 455B and applicable solid or hazardous waste regulations.

This rule is intended to implement Iowa Code section 455B.304.

ITEM 11. Rescind and reserve **567—Chapter 104**.

ITEM 12. Amend rule 567—114.29(455B), introductory paragraph, as follows:

567—114.29 (455B) Operator certification. Sanitary landfill operators ~~and solid waste incinerator operators~~ shall be trained, tested, and certified by a department-approved certification program.

ITEM 13. Amend subrule 114.29(1) as follows:

114.29(1) A sanitary landfill operator ~~or a solid waste incinerator operator~~ shall be on duty during all hours of operation of a sanitary landfill ~~or solid waste incinerator~~, consistent with the respective certification.

ITEM 14. Amend subrules 114.29(3) and 114.29(4) as follows:

114.29(3) A sanitary landfill operator certification ~~or solid waste incinerator operator certification~~ is valid until June 30 of the following even-numbered year.

114.29(4) Basic operator training course.

~~*a.*~~ The required basic operator training course for a certified sanitary landfill operator will have at least 25 contact hours and will address the following areas, at a minimum:

~~(1)~~*a.* Description of types of wastes;

~~(2)~~*b.* Interpreting and using engineering plans;

~~(3)~~*c.* Construction surveying techniques;

~~(4)~~*d.* Waste decomposition processes;

~~(5)~~*e.* Geology and hydrology;

~~(6)~~*f.* Landfill design;

~~(7)~~*g.* Landfill operation;

~~(8)~~*h.* Environmental monitoring;

~~(9)~~*i.* Applicable laws and regulations;

~~(10)~~ *j* Permitting processes;

~~(11)~~*k.* Leachate control and treatment.

b. No change.

ITEM 15. Amend paragraph **114.29(7)"b"** as follows:

b. All persons wishing to take the examination required to become a certified operator of a sanitary landfill ~~or a solid waste incinerator~~ shall complete the Operator Certification Examination Application, Form 542-1354. A listing of dates and locations of examinations is available from the department upon request. The application form requires the applicant to indicate the basic operator training course taken. Evidence of training course completion must be submitted with the application for certification. The completed application and the application fee shall be sent to the director and addressed to the central office in Des Moines. Application for examination must be received by the department at least 30 days prior to the date of examination.

ITEM 16. Amend paragraph **114.29(9)"c"** as follows:

c. An operator may not continue to operate a sanitary landfill ~~or solid waste incinerator~~ after expiration of a certificate without renewal thereof.

ITEM 17. Amend subparagraph **114.29(10)"a"(1)** as follows:

(1) Failure to use reasonable care or judgment or to apply knowledge or ability in performing the duties of a certified operator. Duties of certified operators include compliance with rules and permit conditions applicable to sanitary landfill ~~or incinerator~~ operation.

ITEM 18. Amend subrule 114.29(12) as follows:

114.29(12) A temporary operator of a sanitary landfill ~~or solid waste incinerator~~ may be designated for a period of six months when an existing certified operator is no longer available to the facility. The facility must make application to the department, explain why a temporary certification is needed, identify the temporary operator, and identify the efforts which will be made to obtain a certified operator. A temporary operator designation shall not be approved for greater than a six-month period except for extenuating circumstances. In any event, not more than one six-month extension to the temporary operator designation may be granted. Approval of a temporary operator designation may be rescinded for cause as set forth in 114.29(10).

ITEM 19. Amend rule 567—115.29(455B), introductory paragraph, as follows:

567—115.29 (455B) Operator certification. Sanitary landfill operators ~~and solid waste incinerator operators~~ shall be trained, tested, and certified by a department-approved certification program.

ITEM 20. Amend subrule 115.29(1) as follows:

115.29(1) A sanitary landfill operator ~~or a solid waste incinerator operator~~ shall be on duty during all hours of operation of a sanitary landfill ~~or solid waste incinerator~~, consistent with the respective certification.

ITEM 21. Amend subrules 115.29(3) and 115.29(4) as follows:

115.29(3) A sanitary landfill operator certification ~~or solid waste incinerator operator certification~~ is valid until June 30 of the following even-numbered year.

115.29(4) Basic operator training course.

~~*a.*~~ The required basic operator training course for a certified sanitary landfill operator will have at least 25 contact hours and will address the following areas, at a minimum:

~~(1)~~*a.* Description of types of wastes;

~~(2)~~*b.* Interpreting and using engineering plans;

~~(3)~~*c.* Construction surveying techniques;

~~(4)~~*d.* Waste decomposition processes;

~~(5)~~*e.* Geology and hydrology;

~~(6)~~*f.* Landfill design;

~~(7)~~*g.* Landfill operation;

~~(8)~~*h.* Environmental monitoring;

~~(9)~~*i.* Applicable laws and regulations;

~~(10)~~*j* Permitting processes;

~~(11)~~*k.* Leachate control and treatment;

b. No change.

ITEM 21. Amend paragraph **115.29(7)"b"** as follows:

b. All persons wishing to take the examination required to become a certified operator of a sanitary landfill ~~or a solid waste incinerator~~ shall complete the Operator Certification Examination Application, Form 542-1354. A listing of dates and locations of examinations is available from the department upon request. The application form requires the applicant to indicate the basic operator training course taken. Evidence of training course completion must be submitted with the application for certification. The completed application and the

application fee shall be sent to the director and addressed to the central office in Des Moines. Application for examination must be received by the department at least 30 days prior to the date of examination.

ITEM 23. Amend subparagraph **115.29(10)"a"(1)** as follows:

(1) Failure to use reasonable care or judgment or to apply knowledge or ability in performing the duties of a certified operator. Duties of certified operators include compliance with rules and permit conditions applicable to sanitary landfill ~~or incinerator~~ operation.

ITEM 24. Amend subrule 115.29(12) as follows:

115.29(12) A temporary operator of a sanitary landfill ~~or solid waste incinerator~~ may be designated for a period of six months when an existing certified operator is no longer available to the facility. The facility must make application to the department, explain why a temporary certification is needed, identify who the temporary operator will be, and identify the efforts which will be made to obtain a certified operator. A temporary operator designation shall not be approved for greater than a six-month period except for extenuating circumstances. In any event, not more than one six-month extension to the temporary operator designation may be granted. Approval of a temporary operator designation may be rescinded for cause as set forth in 115.29(10).

ITEM 25. Adopt the following **new** subrule 120.2(4):

120.2(4) These rules do not apply to hazardous waste.

ITEM 26. Amend rule 567—120.3(455B) as follows:

567—120.3 (455B) Definitions. ~~In addition to the~~ The definitions set out in Iowa Code section 455B.301~~, which~~ shall be considered to be incorporated by reference in these rules~~,~~. ~~the following definitions shall apply:~~ For the purposes of this chapter, the definitions found in 567-chapter 100 shall apply.

~~*"High water table"* means the position of the water table that occurs in the spring in years of normal or above-normal precipitation.~~

~~*"Incorporation"* means to mix into the soil by tilling, disking, or other suitable means, thereby creating a loose and divided soil texture.~~

~~*"Landfarm"* means a surface-level soil remediation technology for petroleum-contaminated soils that reduces concentrations of petroleum constituents through biodegradation to a level safe for human health and the~~

~~environment. This technology usually involves spreading excavated contaminated soils in a thin layer on the ground surface and stimulating aerobic microbial activity within the soils through aeration. The enhanced microbial activity results in degradation of adsorbed petroleum product constituents through microbial respiration. Some petroleum product constituents volatize during the landfarming process. There are two types of landfarm permits issued by the department: a multiuse landfarm permit and a single-use landfarm applicator permit.~~

~~*"Landfarm plot"* means the specific operating area of a landfarm upon which a particular source and type of PCS is applied. A landfarm plot is a subset of the operating area.~~

~~*"Landfarm season"* means the time period beginning April 1 and ending October 31 of each year.~~

~~*"Multiuse landfarm"* means a landfarm used for more than one application of PCS. Each application of a particular source and type of PCS is landfarmed in separate landfarm plots. After the PCS is remediated, the landfarming process may be repeated. A multiuse landfarm is not located at a sanitary landfill.~~

~~*"Nonstandard PCS"* means soil contaminated with a petroleum product other than gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.~~

~~*"Operating area"* means the total aggregate area of the landfarm where PCS is applied. The operating area of a multiuse landfarm may include multiple landfarm plots.~~

~~*"Petroleum contaminated soil"* or *"PCS"* means soil contaminated with petroleum products including, but not limited to, gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.~~

~~*"Single-use landfarm"* means the area of land used to landfarm a single application of a particular source and type of PCS. Single-use landfarms are created when a single-use landfarm applicator, or the landfarm's supervised agent, land applies PCS. No other PCS may be applied within 15 feet of the area of land used as a single-use landfarm until the single-use landfarm is closed pursuant to rule 567—120.12(455B).~~

~~*"Single-use landfarm applicator"* means an entity permitted by the department to land apply PCS to create one or more single-use landfarms.~~

~~*"Source of PCS"* means the contaminated area from which the PCS originated. Examples of a source include, but are not limited to, a specific gas station or spill location.~~

~~*"Standard PCS"* means soil contaminated with gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.~~

~~*"Tar ball"* means a ball or conglomeration of tarlike petroleum constituents. Tar balls may form when PCS that contains a high concentration of long-chain or high molecular weight hydrocarbons is landfarmed.~~

~~*"Type of PCS"* means the specific petroleum product or combination thereof that contaminated the soil. Examples of type include, but are not limited to, gasoline, diesel fuel, kerosene, jet fuel, motor oil, hydraulic fluid, or some combination thereof.~~

~~*"Water table"* means the water surface below the ground at which the unsaturated zone ends and the saturated zone begins.~~

ITEM 27. Amend subrules 120.4(1) to 120.4(8) as follows:

567—120.4 (455B) Landfarming <u>applicator</u> permits.

120.4(1) *Permit required.* PCS shall not be landfarmed without a <u>landfarm applicator</u> permit from the department.

120.4(2) ~~*Types of landfarm permits.* The department issues two types of landfarm permits as follows:~~

~~*a. Multiuse landfarm permit.* A multiuse landfarm permit is issued for a landfarm designed to be used for more than one application of PCS. This permit requires that each application of a particular source and type of PCS be landfarmed in separate landfarm plots. If a facility has a multiuse landfarm permit, then the landfarming process may be repeated after the PCS has been remediated. A multiuse landfarm permit is not for a facility located at a sanitary landfill.~~

~~*b. Single-use landfarm* *Landfarm applicator permit.* Upon issuance of a ~~A~~ ~~single-use~~ landfarm applicator permit, the permit holder ~~is issued to an entity that is then permitted by the department to~~ is authorized to land apply PCS to create one or more ~~single-use~~ landfarms. This permit requires that ~~single-use~~ landfarms be used for only one application of a particular source and type of PCS. This permit requires that no other PCS be applied within 15 feet of the area of land used as a ~~single-use~~ landfarm until the ~~single-use~~ landfarm is closed pursuant to rule 567—120.12(455B).

120.4(3) *Construction and operation.* ~~All landfarms~~ Landfarms shall be constructed and operated according to these rules, any plans and specifications approved by the department, and the conditions of the permit. Any approved plans and specifications shall constitute a condition of the permit.

120.4(4) *Transfer of title and permit.* If title to a ~~type of~~ landfarm applicator permit is transferred to a third party, then the department shall transfer the permit within 60 days if the department has determined that the following requirements have been met:

a. *No change*

b. The permitted ~~facility~~ applicator and title transferee are in compliance with Iowa Code chapter 455B, this chapter and the conditions of the permit.

120.4(5) *No change*

120.4(6) *Effect of revocation.* If a landfarm applicator permit held by any public or private agency is revoked by the department, then no new landfarm applicator permit shall be issued to that agency for a ~~period~~minimum of one year from the date ~~of revocation~~the facility has been brought into full compliance with the revocation order. Such revocation shall not prohibit the issuance of a permit for the same landfarm project to another ~~public or private agency~~landfarm application permit holder.

120.4(7) *Inspection of site and operation.* ~~The~~ By obtaining an applicator permit, the permitted entity agrees that the department may inspect the facility and its operations at reasonable times to determine if the landfarm is in compliance with this chapter and the permit requirements.

120.4(8) *Duration of permits.* Landfarm applicator permits shall be issued and may be renewed for a three-year term.

ITEM 28. Rescind subrule **120.5(1)**.

ITEM 29. Renumber subrules **120.5(2)** to **120.5(3)** as **120.5(1)** to **120.5(2)**.

ITEM 30. Amend renumbered subrule 120.5(1), introductory paragraph, and subparagraph **120.5(1)"a"(1)** as follows:

120.5(1) ~~*Single-use landfarm*~~ *Landfarm applicator permits.* To apply for a ~~single-use~~ landfarm applicator permit, the applicant shall submit the following information to the department:

a. The name, address, and telephone number of:

(1) Agency applying for the ~~single-use~~ landfarm applicator permit.

ITEM 31. Amend subrule 120.6(3) as follows:

120.6(3) *Tar balls.* PCS that has the potential to produce tar balls shall not be landfarmed ~~at a single-use or multiuse landfarm~~. Such PCS may be disposed of in a sanitary landfill pursuant to 567—Chapter 109.

ITEM 32. Amend subrule 567.120(1) as follows:

120.7(1) *Previous use.* If ~~the~~ a site is to be used as a ~~single-use~~ landfarm, then the ~~single-use~~ landfarm applicator shall obtain written confirmation from the site owner of one of the following requirements. ~~This subrule shall not apply to land utilized as a landfarm prior to October 20, 2004.~~

a. That any other landfarm created in the past three years within 15 feet of the proposed ~~operating area~~ landfarm plot has been closed pursuant to rule 567—120.12(455B).

b. That no area within 15 feet of the proposed ~~operating area~~ landfarm plot has been used as a landfarm in the past three years.

ITEM 33. Rescind subrule **120.7(4)**.

ITEM 34. Renumber subrules **120.7(5)** to **120.7(10)** as **120.7(4)** to **120.7(9)**.

ITEM 35. Amend renumbered subrule 120.7(5) as follows:

120.7(6) *Tile lines.* PCS shall not be landfarmed or stored within 200 feet of a tile line surface intake. ~~A multiuse landfarm shall not be located on land that has been tiled. The absence of tile lines shall be verified by written confirmation from the landowner and a visual inspection of the property.~~

ITEM 36. Amend renumbered subrule 120.7(9) as follows:

120.7(10) *Soil properties for ~~operating area~~ landfarm plot.* All soils in the ~~operating area~~ landfarm plot of the landfarm shall comply with the following requirements:

a. USDA textural soil classification.

~~(1) Multiuse landfarms. Soils in the operating area of multiuse landfarms shall be silty clay, silt clay loam, clay loam, loam, or silt loam as classified by the USDA Textural Classification Chart for soils.~~

~~(2) Single-use landfarms.~~ Soils in the ~~operating area~~ landfarm plot of ~~single-use~~ landfarms shall be clay, sandy clay, sandy clay loam, sandy loam, silty clay, silt clay loam, clay loam, loam, or silt loam as classified by the USDA Textural Classification Chart for soils.

b. Stones and debris. Soils in the ~~operating area~~ landfarm plot shall be free of stones and debris larger than 4 inches in diameter.

c. Soil pH. Soils in the ~~operating area~~ landfarm plot shall have a pH greater than or equal to 6 and less than or equal to 9.

d. Bedrock separation. The ~~operating area~~ landfarm plot.

ITEM 37. Rescind subrule **120.8(2)**.

ITEM 38. Amend rule 567—120.9(455B), introductory paragraph, as follows:

567—120.9 (455B) Landfarm operating requirements. All ~~multiuse and single-use~~ landfarms shall comply with the following operating requirements:

ITEM 39. Amend subrules 120.9(2) to 120.9(5) as follows:

120.9(2) *Saturated, or slurry~~, or flammable~~ PCS.* PCS in a saturated, or slurry~~, or flammable~~ condition shall not be land applied or stored at a landfarm. PCS in such a condition shall be bulked with other biodegradable materials (e.g., compost, mulch) until it is no longer saturated~~,~~ or in a slurry~~, or flammable~~ before it is land applied or stored at a landfarm.

120.9(3) *PCS delivery and storage.* Only PCS that is from an emergency cleanup may be delivered during the non-landfarm season. PCS delivered during non-landfarm season may be stored as follows until the conditions of subrule 120.9(4) are satisfied or within the first seven days of landfarm season, whichever is shorter. PCS that cannot immediately be land applied at the landfarm during landfarm season may be stored at the landfarm as follows. ~~PCS delivered during non-landfarm season may be stored until the conditions of subrule 120.9(4) are satisfied or within the first seven days of landfarm season, whichever is shorter.~~

a. Seven days or less. PCS may be stored up to seven days in compliance with the following requirements:

(1) Over an impervious surface (e.g., tarp, concrete pad, plastic sheeting).

(2) Under a roof or tarp to minimize the infiltration of precipitation.

(3) In an area with minimal potential for stormwater run-on.

b. Extended storage time. No PCS shall be stored longer than seven days during landfarm season without written permission from the department field office that has jurisdiction over the landfarm.

120.9(4) PCS application weather and landfarm season.

a. PCS shall only be land applied during non-landfarm season if the PCS must be land applied as part of an emergency cleanup supervised by the department pursuant to subrule 120.6(1), or all of the following conditions exist:

(1) The ~~operating area~~ landfarm plot is free of snow.

(2) The slope of the ~~operating area~~ landfarm plot is less than 3 percent.

(3) The PCS is incorporated into the soil as soon as site conditions allow.

b. PCS shall not be land applied during precipitation.

120.9(5) *One application, source and type of PCS per plot.* One application of a particular source and type of PCS may be applied to a landfarm plot. A landfarm may only apply a subsequent application of PCS to a previously utilized landfarm plot if such application is in compliance with the following:

~~*a. Multiuse landfarms.* A subsequent application of a particular source and type of PCS may be applied to a previously utilized landfarm plot in a multiuse landfarm after the following requirements have been met:~~

~~(1)~~ *a.* The plot has been tested pursuant to subparagraphs 120.6(2)*"c"*(1), (2), and (3), and the results demonstrate that petroleum constituent concentrations are less than 0.54 mg/kg for benzene, 42 mg/kg for toluene, 15 mg/kg for ethylbenzene, 3800 mg/kg for TEH-diesel, and 0.02 mg/kg for MTBE.

~~(2) The PCS turning requirement of subrule 120.9(10) has been completed.~~

b. ~~*Single-use landfarms.*~~ A subsequent application of a particular source and type of PCS may not be applied within 15 feet of an area used as a single-use landfarm until the single-use landfarm is closed pursuant to subrule 120.12(2).

ITEM 40. Amend subrule 120.9(11) as follows:

120.9(11) No crops for consumption.

~~*a.* Multiuse landfarms shall not grow crops for human or livestock consumption within 15 feet of the operating area until the landfarm is closed pursuant to subrule 120.12(1).~~

~~*b.* Single-use landfarms~~ Landfarms shall not grow crops within 15 feet of a landfarm plot that is flagged pursuant to subrule 120.9(7). Crops for human and livestock consumption may be grown at a single-use landfarm after the landfarm plot is no longer required to be flagged pursuant to subrule 120.9(7).

ITEM 41. Rescind subrule **120.9(12)**.

ITEM 42. Renumber subrule **120.9(13)** as **120.9(12)**.

ITEM 43. Amend subrule 120.10(1) as follows:

567—120.10 (455B) Emergency response and remedial action plans.

120.10(1) *Access.* Emergency response and remedial action plan (ERRAP) documents shall be readily available. ~~Multiuse landfarms shall maintain a copy of the ERRAP on site (e.g., the back of permit sign, fence post, or mailbox). Single-use landfarm~~ Landfarm applicators shall have employees carry a copy of the ERRAP document to each site where operations are taking place.

ITEM 44. Amend subrule 120.11(1) as follows:

567—120.11 (455B) Reporting and record-keeping requirements.

120.11(1) *Reporting.* The following information shall be submitted to the department on a form provided by the department. All reporting submissions shall include the name, address, and telephone number of the landfarm and permit holder, as well as the permit number.

a. Storage notification. ~~Multiuse and single-use landfarms~~ Landfarms shall submit the following information to the department and department field office with jurisdiction over the landfarm before receipt of the PCS for storage; however, at least 30 days' notification is encouraged. PCS storage information from an emergency cleanup supervised by the department pursuant to subrule 120.6(1), however, shall be reported within 7 days of the emergency cleanup.

(1) through (3) *No change*

b. Land application notification. ~~Multiuse and single-use landfarms~~ Landfarms shall submit the following information to the department and department field office with jurisdiction over the landfarm before land

application; however, at least 30 days' notification is encouraged. PCS information from an emergency cleanup supervised by the department pursuant to subrule 120.6(1), however, shall be reported within 7 days of the emergency cleanup.

(1) The date the PCS is expected to be land applied. If the PCS is not applied on this date, the department shall be informed of the actual application date.

(2) ~~Single-use landfarms shall submit an~~ A physical address, or parcel identification number for the landfarm location, a legible topographic map or aerial photo, USDA soil map with key, and a map of the 100-year flood plain illustrating and labeling where the PCS is to be applied. ~~Multiuse landfarms shall report the landfarm plot(s) to which the PCS is to be applied.~~

(3) Application rate calculations pursuant to subrule 120.9(6).

(4) The spill number, UST registration number, and LUST number, as applicable.

c. PCS analysis and characterization. Information on the analysis and characterization of the PCS pursuant to rule 567—120.6(455B) shall be submitted to the department before receipt of the PCS for storage or land application; however, at least 30 days' notification is encouraged. PCS analysis and characterization information from an emergency cleanup supervised by the department pursuant to subrule 120.6(1), however, shall be reported within 60 days of the emergency cleanup.

~~*d. Groundwater monitoring well results.* Multiuse landfarms shall annually test all groundwater monitoring wells as follows. A laboratory certified pursuant to 567—Chapter 83 for UST petroleum analyses shall test the samples. Test results for each well at a multiuse landfarm shall be submitted to the department by the first workday in January of each year.~~

~~(1) BTEX testing. The groundwater monitoring wells shall be tested for benzene, toluene, ethylbenzene, and xylene (BTEX). The BTEX analysis shall utilize the most recent version of Method OA-1 (GCMS), "Method for Determination of Volatile Petroleum Hydrocarbons (Gasoline)," University of Iowa Hygienic Laboratory.~~

~~(2) TEH-diesel and waste oil testing. The groundwater monitoring wells shall be tested for total extractable hydrocarbons (TEH-diesel and waste oil). The TEH-diesel and waste oil analyses shall utilize the most~~

~~recent version of Method OA-2, "Extractable Petroleum Products (and Relatively Low Volatility Organic Compounds)," University of Iowa Hygienic Laboratory.~~

~~(3) MTBE testing. The groundwater monitoring wells shall be tested for MTBE unless prior analysis of PCS accepted for landfarming, pursuant to rule 567—135.15(455B), has shown that MTBE was not present in soil or groundwater of the source. A laboratory certified pursuant to 567—Chapter 83 for UST petroleum analyses shall test the samples. The analysis shall utilize one of the following methods:~~

~~1. The most recent version of Method OA-1 (GCMS), "Method for Determination of Volatile Petroleum Hydrocarbons (Gasoline)," University of Iowa Hygienic Laboratory.~~

~~2. U.S. Environmental Protection Agency (EPA) Method 8260B, SW-846, "Test Methods for Evaluating Solid Waste," Third Edition~~.

ITEM 45. Amend subrule 120.11(2), introductory paragraph, as follows:

120.11(2) *Record keeping.* All landfarms <u>landfarm applicators</u> shall maintain records of all information related to compliance with this chapter and the permit throughout the life of the landfarm and for three years after landfarm closure pursuant to rule 567—120.12(455B). This information shall be available to the department upon request. Applicable information includes, but is not limited to, the following material.

ITEM 46. Amend rule 567—120.12(455B) as follows:

567—120.12 (455B) Landfarm closure. Unless otherwise required or approved by the department, landfarms shall be closed ~~as follows~~ <u>in one of the following ways</u>.

~~**120.12(1)** *Multiuse landfarms.* Multiuse landfarms may be closed after groundwater monitoring well tests verify that down-gradient groundwater monitoring well results are within two standard deviations of the mean analyte concentrations, pursuant to paragraph 120.11(1)*"d,"* in corresponding up-gradient monitoring wells for three consecutive years after the last application of PCS. Furthermore, prior to closure each landfarm plot shall be tested as follows. Closure is not official until verified in writing by the department.~~

~~*a.* One sample from each 10,000 ft^2 (e.g., 100-foot × 100-foot area) of landfarm plot is analyzed pursuant to subparagraphs 120.6(2)*"c"*(1), (2), and (3). A minimum of one sample per landfarm plot shall be obtained. All samples shall be obtained from between the top 2 to 6 inches of soil.~~

~~*b.* The results of the tests in paragraph 120.12(1)*"a"* demonstrate that petroleum constituent concentrations are less than 0.54 mg/kg for benzene, 42 mg/kg for toluene, 15 mg/kg for ethylbenzene, 3800 mg/kg for TEH-diesel and 0.02 mg/kg for MTBE.~~

~~120.12(2)~~(1) *~~Single-use landfarms.~~* ~~Single-use landfarms are closed~~ three years after the application of PCS, or

(2) at least six months after the application of PCS when documentation has been submitted and acknowledged in writing by the department that each landfarm plot has been tested as follows.

a. No change

b. No change

ITEM 47. Amend rule 567—120.13(455B, 455D), introductory paragraph, as follows:

567—120.13 (455B,455D) Financial assurance requirements for ~~multiuse and single-use~~ landfarms. The holder of a sanitary disposal project permit for a ~~multiuse or single-use~~ landfarm must obtain and submit a financial assurance instrument to the department in accordance with this rule. The financial assurance instrument shall provide monetary funds for the purpose of conducting closure activities at the ~~operating area(s)~~landfarm plot(s) due to the permit holder's failure to properly close the site as required in accordance with rule 120.12(455B) within 30 days of permit suspension, termination, revocation, or expiration.

ITEM 48. Amend subrules 120.13(1) to 120.13(3) as follows:

120.13(1) *No permit without financial assurance.* The department shall not issue or renew a permit to an owner or operator of a ~~multiuse or single-use~~ landfarm until a financial assurance instrument has been submitted to and approved by the department.

120.13(2) *Proof of compliance.* Proof of the establishment of the financial assurance instrument and compliance with this rule, including a current closure cost estimate, shall be submitted ~~by July 1, 2008, or~~ at the time of application for a permit for a ~~new multiuse or single-use~~ landfarm applicator permit. The owner or operator must provide continuous coverage for closure and submit proof of compliance, including an updated closure cost estimate, with each permit renewal thereafter until released from this requirement by the department.

120.13(3) *Financial assurance amounts required.* The estimate submitted to the department must be certified by a professional engineer and account for at least the following factors determined by the department to be minimal necessary costs for closure pursuant to rule 120.12(455B):

a. Third-party costs to conduct ~~groundwater and~~ soil sampling and properly clean all equipment and storage areas at the ~~operating area(s)~~landfarm plot(s).

b. No change.

Administrative Rules
GOVERNOR'S OFFICE PRECLEARANCE FORM

Agency:	Environmental Protection Commission (Commission) / Department of Natural Resources (Department)
IAC Citation:	567 IAC chapters 100, 102, 104, 120 and 567 IAC 114.29 and 567 IAC 115.29
Agency Contact:	Theresa Stiner, 515-725-8315; Theresa.Stiner@dnr.iowa.gov
Statutory Authority:	Iowa Code sections 455B.304 and 455D.7(1)
Preclearance Requested Review Deadline:	October 28, 2022

Purpose of Proposed Rule: Chapters 100, 102, 104, 114, 115 and 120 regulate solid waste. This proposed rule making will reduce and consolidate these regulations. This is accomplished by rescinding redundant or outdated rules, consistent with Iowa Code section 17A.7(2)'s five-year rule review directive. All Code-based definitions are being stricken in lieu of a statutory reference.

More specifically, the proposed amendments consolidate rules scattered across three chapters into one chapter. Chapter 104 in its entirety is being rescinded, although the requirements for solid waste incinerator operator certification are being moved to Chapter 102. Chapter 120 will be simplified by having only one type of permit for the remediation of petroleum contaminated soil. Combined, these changes will result in a reduction of over 4,000 words from the administrative code.

No new policy proposals are included in this rulemaking.

Need for Proposed Rule: This strategic streamlining will make all of the regulations more intuitive and easier to read and understand. As noted above, redundant and outdated rules are being removed, and all rules related to general solid waste are being consolidated into a single chapter.

Summary of Informal Rulemaking Activities related to the Proposed Rule (e.g., stakeholder input): The proposed rule changes were provided to the Iowa Recycling Association, Iowa Society of Solid Waste Operations, and landfarm permit holders for comment. No response was received.

Administrative Rules
JOBS IMPACT STATEMENT

BACKGROUND INFORMATION

Agency:	Environmental Protection Commission (Commission) / Department of Natural Resources (Department)
IAC Citation:	567 IAC chapters 100, 102, 104, 120 and 567 IAC 114.29 and 567 IAC 115.29
Agency Contact:	Theresa Stiner, 515-725-8315; Theresa.Stiner@dnr.iowa.gov
Statutory Authority:	Iowa Code sections 455B.304 and 455D.7(1)
Objective:	Reduce and consolidate solid waste regulations
Summary:	This proposed rulemaking will remove redundant and outdated rules as well as organize general solid waste rules into a single chapter. This will make the administrative code more intuitive to navigate for the regulated community.

JOB IMPACT ANALYSIS

Fill in this box if impact meets these criteria:
X -- No Job Impact on private sector jobs and employment opportunities in the State. *(If you make this determination, you must include the following statement in the preamble to the rule: "After analysis and review of this rulemaking, no impact on jobs has been found.")*
Explanation: Because this rulemaking is limited to rescinding rules that are redundant or outdated and moving existing rules to more topical chapters, there will be no impact to private sector jobs.

Fill in this box if impact meets either of these criteria:
Positive Job Impact on private sector jobs and employment opportunities in the State.
Negative Job Impact on private sector jobs and employment opportunities in the State.
Description and quantification of the nature of the impact the proposed rule will have on private sector jobs and employment opportunities:
Categories of jobs and employment opportunities that are affected by the proposed rule:
Number of jobs or potential job opportunities:
Regions of the state affected:
Additional costs to the employer per employee due to the proposed rule: (if not possible to determine, write "Not Possible to Determine.")

COST-BENEFIT ANALYSIS

The Agency has taken steps to minimize the adverse impact on jobs and the development of new employment opportunities before proposing a rule. See the following Cost-Benefit Analysis:

There will be no new costs for the regulated community. The proposed revisions remove outdated and redundant regulations.

FISCAL IMPACT

Please see the Fiscal Impact Statement for an identification and description of costs the Department anticipates state agencies, local governments, the public, and the regulated entities, including regulated businesses and self-employed individuals, will incur from implementing and complying with the proposed rule.

PREAMBLE

The information collected and included in this Jobs Impact Statement must be included in the preamble of the proposed rule, written in paragraph form. For rules that have no impact on jobs (see the first box in number 2 above), the following statement must be included in the preamble: "After analysis and review of this rulemaking, no impact on jobs has been found."

Administrative Rule Fiscal Impact Statement

Agency: Environmental Protection Commission (Commission) / Department of Natural Resources (Department)
IAC Citation: 567 IAC chapters 100, 102, 104, and 567 IAC 114.29 and 567 IAC 115.29
Agency Contact: Theresa Stiner, 515-725-8315; Theresa.Stiner@dnr.iowa.gov

Summary of the Rule: This proposed rulemaking will remove redundant and outdated rules as well as organize general solid waste rules into a single chapter. This will make the administrative code more intuitive to navigate for the regulated community.

Fill in this box if impact meets these criteria:

X -- No Fiscal Impact to the State.

Fiscal Impact of less than $100,000 annually or $500,000 over 5 years.

Fiscal Impact cannot be determined.

Brief Explanation: No fiscal impact is expected from this proposed rulemaking. The proposed rulemaking is limited to rescinding rules that are redundant or outdated and moving existing rules into a single topical chapter.

Assumptions:

Describe how estimates were derived:

Estimated Impact to the State by Fiscal Year

	Year 1 (FY)	Year 2 (FY)
Revenue by Each Source:		
GENERAL FUND	$0	$0
FEDERAL FUNDS	$0	$0
Other (specify)	$0	$0
TOTAL REVENUE	$0	$0
Expenditures:		
GENERAL FUND	$0	$0
FEDERAL FUNDS	$0	$0
Other (specify)	$0	$0
TOTAL EXPENDITURES	$0	$0

***NET IMPACT*: $0**

This rule is required by State law or Federal mandate.
Please identify the state or federal law:

Funding has been provided for the rule change.
Please identify the amount provided and the funding source:

X -- Funding has not been provided for the rule. *Please explain how the agency will pay for the rule change:* There will be no additional costs due to the rule change.

Fiscal impact to persons affected by the rule: None

Fiscal impact to Counties or other Local Governments (required by Iowa Code 25B.6): None

Iowa Department of Natural Resources
Environmental Protection Commission

ITEM **#15** **DECISION**

TOPIC **Final Rule – Chapters 60 and 64 – Renewal of General Permits Nos. 1, 2, 3, and 4 with Cleanup and Clarification**

The Commission is requested to approve this Final and Adopted Rule amending certain wastewater rules in Chapter 60 and 64, including the National Pollutant Discharge Elimination System (NPDES) general permits adopted by reference. The amendments improve the accuracy and readability of regulations and update certain permit dates.

In more detail, the amendments renew four National Pollutant Discharge Elimination System (NPDES) general permits for storm water (GPs #1, #2, and #3) and for private sewage disposal systems (GP #4). These general permits will expire on February 28, 2023. Renewal of these permits is necessary because subrule 567 IAC 64.3(7) states that general permits are only valid for five years. The new effective date for all four general permits is March 1, 2023 through February 28, 2028.

The amendments also clarify and improve the readability of existing requirements. The revisions to GP #1 through #4 and to Chapter 60 update existing wording in the regulations, definitions, and standard conditions to match the administrative rules and federal regulations. These changes make the wording uniform, remove redundancies, and improve readability but do not affect the substance of the permits.

Notice of Intended Action (NOIA) was approved by the Commission on August 16, 2022. The NOIA was published on September 9, 2022, as **ARC 6501C.** A public hearing was held via Zoom on September 28, 2022, at 2:00 p.m. Nine individuals attended the hearing. Written comments were accepted until September 30, 2022. Two comments were received regarding GPs #1, #2, and #3. Several minor edits to GPs #1, #2, and #3 were made in response to the comments.

If this rule is adopted by the Commission, the effective date of the final rule will be March 1, 2023.

Courtney Cswercko, Environmental Specialist Senior
NPDES Section, Water Quality Bureau
Environmental Services

October 26, 2022

Attachments – Final proposed rule for adoption; General Permit Nos. 1, 2, 3, and 4

ENVIRONMENTAL PROTECTION COMMISSION[567]

Adopted and Filed

Rule making related to general permits

The Environmental Protection Commission (Commission) hereby amends Chapter 60, "Scope of Title—Definitions—Forms—Rules of Practice," and Chapter 64, "Wastewater Construction and Operation Permits," Iowa Administrative Code.

Legal Authority for Rule Making

This rule making is adopted under the authority provided in Iowa Code sections 455B.103A, 455B.105(3) and 455B.173.

State or Federal Law Implemented

This rule making implements, in whole or in part, Iowa Code sections 455B.103A, 455B.105 and 455B.173.

Purpose and Summary

The adopted rule making renews National Pollutant Discharge Elimination System (NPDES) General Permit Nos. 1, 2, and 3 for storm water (GPs #1, 2, and #3) and NPDES General Permit No. 4 (GP #4) for private sewage disposal systems. These general permits will expire on February 28, 2023. Renewal of these permits is necessary because subrule 64.3(7) states that general permits are only valid for five years. The new effective date for all four general permits is March 1, 2023, through February 29, 2028.

The adopted rule making also clarifies and improves the readability of existing requirements. The adopted revisions to GPs #1 through 4 and to Chapter 60 update existing wording in the regulations, definitions, and standard conditions to match the administrative rules and federal regulations. These changes make the wording uniform, remove redundancies, and improve readability but do not affect the substance of the permits. The definition of "storm water discharge associated with industrial activity" in the general permits now clearly includes disturbances of less than one acre that are part of a larger common plan of development. This is already required by the federal regulations.

Copies of the adopted general permits are available upon request from the Department of Natural Resources

and may be viewed at: www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Wastewater-Permitting/NPDES-Rules.

Public Comment and Changes to Rule Making

Notice of Intended Action (NOIA) for this rule making was approved by the Commission on August 16, 2022. The NOIA was published on September 9, 2022, as **ARC 6501C.** A public hearing was held via Zoom on September 28, 2022, at 2:00 p.m. Nine individuals attended the hearing. Written comments were accepted until September 30, 2022.

Two comments were received regarding the proposed changes to GPs #1, #2, and #3. The first comment requested that the construction site inspection frequency of once every seven calendar days, as noted in GP #2, be modified to account for federal holidays. This inspection frequency matches the frequency in the Environmental Protection Agency's Construction General Permit for Stormwater Discharges from Construction Activities, effective on February 17, 2022. Thus, no change to GP #2 will be made.

The second comment requested clarification of contradictory requirements proposed in GPs #1 and #3 regarding data submission and data retention. The proposed requirements in GPs #1 and #3 referenced by the comment are also in GP #2. The data submission and retention requirements in the Notice of Intent (NOI) and records retention parts of the proposed GPs #1, #2, and #3 did not match the existing requirements in the NOI form or the requirements in the renotification parts of the proposed general permits. Data submission is not required by the current NOI form, and a data summary is not required by the renotification parts of the general permits. However, permittees need to retain records for three years, as noted in all three general permits. In response to this comment, language clarifying the requirements for data submission and data retention has been added to the adopted GPs #1, #2, and #3. The NOI and records retention parts of the adopted general permits (Parts II.C.1.E. of GPs #1, #2 and #3; Part V.E. of GPs #1 and #3; and Part V.A. of GP #2) indicate that:

- data is not required to be submitted with an NOI,
- renotification does not require the submission of a data summary, and
- all records used in the completion of an NOI shall be retained for three years.

No comments were received regarding the proposed changes to GP #4.

No changes from the Notice have been made.

Adoption of Rule Making

This rule making was adopted by the Commission on November 15, 2022.

Fiscal Impact

This rule making has no fiscal impact to the State of Iowa. A copy of the fiscal impact statement is available from the Department of Natural Resources (Department) upon request.

Jobs Impact

After analysis and review of this rule making, no impact on jobs has been found. A copy of the jobs impact statement is available from the Department upon request.

Waivers

Any person who believes that the application of the discretionary provisions of this rule making would result in hardship or injustice to that person may petition the Department for a waiver of the discretionary provisions, if any, pursuant to 561—Chapter 10.

Review by Administrative Rules Review Committee

The Administrative Rules Review Committee, a bipartisan legislative committee which oversees rule making by executive branch agencies, may, on its own motion or on written request by any individual or group, review this rule making at its regular monthly meeting or at a special meeting. The Committee's meetings are open to the public, and interested persons may be heard as provided in Iowa Code section 17A.8(6).

Effective Date

This rule making will become effective on March 1, 2023.

The following rule-making actions are adopted:

ITEM 1. Amend rule **567—60.2(455B)**, definition of "Storm water discharge associated with industrial activity," as follows:

"Storm water discharge associated with industrial activity" means the discharge from any conveyance ~~which~~

that is used for collecting and conveying storm water and ~~which~~ that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 CFR Part 122. For the categories of industries identified in ~~paragraphs "1" to "10" of~~ this definition, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined at 40 CFR Part 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and ~~finished~~ final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

For the ~~categories of industries identified in paragraphs "1" to "9" and "11," the term includes only storm water discharges from all the areas (except access roads and rail lines) that are listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph,~~ purposes of this definition, material handling activities include ~~the:~~ storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, ~~finished~~ final product, by-product or waste product. ~~To qualify for this exclusion, a storm-resistant shelter is not required for: drums, barrels, tanks and similar containers that are tightly sealed with bands or otherwise secured and have no taps or valves, are not deteriorated and do not leak; adequately maintained vehicles used in material handling; and final products other than products that would be mobilized in storm water discharge.~~ The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, state, or municipally owned or operated ~~)~~ that meet the description of the facilities listed in paragraphs "1" to "11" of this definition) include

those facilities designated under 40 CFR Section 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this definition:

1. No change.

2. Facilities classified ~~as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441, 373;~~ within Standard Industrial Classification 24, Industry Group 241 that are rock crushing, gravel washing, log sorting, or log storage facilities operated in connection with silvicultural activities defined in 40 CFR Sections 122.27(b)(2)-(3) and Industry Groups 242 through 249; 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373; (not included are all other types of silviculture facilities);

3. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR Section 434.11(1)~~)~~ because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable state or federal reclamation requirements after December 17, 1990~~,~~) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with~~,~~ or that has come into contact with, any overburden, raw material, intermediate products, finished products, by-products or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);

4. No change.

5. Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this definition) including those that are subject to regulation under Subtitle D of RCRA;

6. and 7. No change.

8. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-4225), 43, 44, 45 and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs "1" to "7" or "9" ~~or~~ to "11" of this definition are associated with industrial activity;

9. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system , used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farmlands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with ~~40 CFR Part 503~~ Section 405 of the Clean Water Act;

10. Construction activity including clearing, grading and excavation , ~~activities~~ except operations that result in the disturbance of less than ~~5 acres~~ one acre of total land area ~~which is not part of a larger common plan of development or sale. Effective March 10, 2003, construction activity including clearing, grading and excavation activities except operations that result in the disturbance of less than 1 acre of total land area which is not part of a larger common plan of development or sale;~~. Construction activity also includes the disturbance of less than one acre of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more;

11. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-4225 ~~(and which are not otherwise included within paragraphs "2" to "10")~~.

ITEM 2. Amend subrule 64.15(1) as follows:

64.15(1) Storm Water Discharge Associated with Industrial Activity, NPDES General Permit No. 1, effective March 1, ~~2018~~ 2023, to February ~~28, 2023~~ 29, 2028. Facilities assigned Standard Industrial Classification 1442, 2951, or 3273, and those facilities assigned Standard Industrial Classification 1422 or 1423 which are engaged primarily in rock crushing are not eligible for coverage under General Permit No. 1.

ITEM 3. Amend subrule 64.15(2) as follows:

64.15(2) Storm Water Discharge Associated with Industrial Activity for Construction Activities, NPDES General Permit No. 2, effective March 1, ~~2018~~ 2023, to February ~~28, 2023~~ 29, 2028.

ITEM 4. Amend subrule 64.15(3) as follows:

64.15(3) Storm Water Discharge Associated with Industrial Activity from Asphalt Plants, Concrete Batch Plants, Rock Crushing Plants, and Construction Sand and Gravel Facilities, NPDES General Permit No. 3, effective March 1, ~~2018~~ 2023, to February ~~28, 2023~~ 29, 2028. General Permit No. 3 authorizes storm water discharges from facilities primarily engaged in manufacturing asphalt paving mixtures and which are classified under Standard Industrial Classification 2951, primarily engaged in manufacturing Portland cement concrete and which are classified under Standard Industrial Classification 3273, those facilities assigned Standard Industrial Classification 1422 or 1423 which are primarily engaged in the crushing, grinding or pulverizing of limestone or granite, and construction sand and gravel facilities which are classified under Standard Industrial Classification 1442. General Permit No. 3 does not authorize the discharge of water resulting from dewatering activities at rock quarries.

ITEM 5. Amend subrule 64.15(4) as follows:

64.15(4) "Discharge from Private Sewage Disposal Systems," NPDES General Permit No. 4, effective March 1, ~~2018~~ 2023, to February ~~28, 2023~~ 29, 2028.

Iowa Department of Natural Resources
Environmental Protection Commission

ITEM **#16** **DECISION**

TOPIC **Referral to the Attorney General**

The Director requests the referral of the following matters to the Attorney General for appropriate legal action. A litigation report has been provided to the commissioners and is confidential pursuant to Iowa Code section 22.7(4). The party has been informed of this action and may appear to discuss this matter. If the Commission needs to discuss strategy with counsel on any matter where the disclosure of matters discussed would be likely to prejudice or disadvantage its position in litigation, the Commission may go into closed session pursuant to Iowa Code section 21.5(1)(c).

- Apex Construction Group, Inc.

Tamara McIntosh, General Counsel
Legal Services Bureau

November 15, 2022

LITIGATION REPORT

Prepared by: Kelli Book
Date: October 31, 2022

I. Summary

The DNR seeks referral of Apex Construction Group, Inc. to the Attorney General's Office due to asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) violations in connection with a renovation project at the Prairie Crest Elementary School in Cedar Rapids, Iowa. This referral includes the following violations: failure to notify DNR of the renovation, failure to remove all regulated asbestos containing material prior to renovation, failure to keep all regulated asbestos containing material adequately wet, failure to employ a trained asbestos supervisor during renovation, and failure to seal all asbestos containing material.

II. Alleged Violators

Apex Construction Group, Inc.
17W 691 14th Street
Oakbrook Terrace, Illinois 60181

Apex Construction Group, Inc.
Valentino Caushi, Registered Agent
5715 N Kenneth Avenue
Chicago, Illinois 60646

III. Description of Facility

Apex Construction Group, Inc. (Apex) is an Illinois registered corporation. Apex was hired as the general contractor to do a series of renovation projects at the Prairie Crest Elementary School in Cedar Rapids, Iowa. The school building was constructed in 1961 and is located at 401 76th Avenue SW in Cedar Rapids. The school building is a single-story elementary school with approximately 92,000 square feet. The school houses over 400 students and staff. The school is part of the College Community School District.

IV. Alleged Violations (including facts and applicable law)

Asbestos is a known cause of lung disease, asbestosis, and cancer, specifically mesothelioma. Asbestos is a hazardous air pollutant. Failure to follow proper removal and disposal techniques of the regulated asbestos containing material creates an environmental hazard to the workers and general public through the likely release of asbestos fibers. Proper removal and disposal of asbestos containing material is required pursuant to the Clean Air Act's asbestos NESHAP.

A. FACTS

In June 2021, the school district began a two-year renovation project at Prairie Crest Elementary. The building had areas of asbestos containing material that required asbestos abatement before the renovation work could begin. In October and November 2020, prior to the renovation project, Shive-Hattery, Inc. (Shive-Hattery), the environmental consultant hired by the school district to oversee the project, conducted an asbestos survey of the building to identify the areas with asbestos containing material that would need to be removed. There were numerous areas that contained asbestos containing material and the area subject to this referral is the multicolored carpet in the hallways. The asbestos survey indicated the presence of 6% chrysotile asbestos in the black mastic under the multicolored carpet in the hallways.

Iowa Illinois Taylor was hired by the school district to remove the asbestos containing flooring. The abatement was to occur in two phases with Phase 1 occurring in June 2021 and Phase 2 occurring in June 2022. The removal of approximately 8,200 square feet of carpet over asbestos containing black mastic, the multicolored carpet noted above, was to be removed during Phase 2. The plan for the phase work was captured in an asbestos abatement plan developed by Shive-Hattery. The plan provided schematics and removal dates for each phase of the asbestos abatement project.

In May and June 2021, Chad Siems with Shive-Hattery, met with a representative from Apex. They walked through the areas of the building that had already had the asbestos removed and Mr. Siems provided the Apex represenative with a copy of the asbestos abatement plan. Following the discovery of the fiber release, Mr. Siems provided DNR with a copy of a transmittal sheet confirming that the abestos abatement documents were provided to Apex on May 21, 2021. The school district also provided documentation to the DNR indicating that Apex representatives met with school representative and the architect on May 13, 2021 and then the walk through of the building between Apex and Mr. Siems occurred later in May 2021. The school district confirmed that Apex requested a copy of the drawings from the consultant to help with coordination and the asbestos abatement plan was sent to Apex on May 21, 2021. The asbestos abatement plan was downloaded by Duncan McDougall, Apex project engineer on May 21, 2021 and by Justin Bohlke, Apex project manager on June 15, 2021. The plan indicated the multicolored carpeting was not to be removed until June 2022. Following the discovery of the fiber release, Apex representatives claimed the company was not made aware of the abatement schedule until December 29, 2021. However, the plan provided in May 2021, indicated the location of the multicolored carpeting, the asbestos content, the schedule for abatement, and indicated that the carpet areas had not been abated.

In summary, by the beginning of June 2021, Apex had been notified verbally and in writing of the plan to remove the multicolored carpeting and asbestos containing mastic in June 2022.

In spite of this knowledge, on June 19, 2021, Apex began the removal of over 8,000 square feet of the multicolored carpet from the hallways of the school building. The mastic under the carpet contained 6% chrysotile asbestos. The removal started on June 19, 2021 and lasted approximately 10 days. The carpet and mastic were mechanically removed, placed in a dumpster and taken to the landfill. The removal was not done in containment and the debris was not disposed of in sealed containers.

On December 22, 2021, Tom Wuehr, DNR Air Quality environmental specialist senior, received a telephone call from Dwayne Carver with College Community School District indicating there had been a potential asbestos release at Prairie Crest Elementary School. Mr. Wuehr requested the areas in question be sealed. Mr. Carver sent Mr. Wuehr an email on December 23, 2021, confirming an asbestos release occurred in June 2021 when Apex removed over 8,000 square feet of carpet and mastic. The mastic contained 6% regulated asbestos.

On December 27, 2021, Mr. Wuehr received an email from Mr. Siems reporting the fiber release. Mr. Siems informed Mr. Wuehr he had conducted air testing and the tests revealed the presence of asbestos fibers six months after the carpet and mastic removal. Mr. Siems stated the building had been occupied by students and teachers from September 2021 until December 2021.

On December 29, 2021, Mr. Wuehr traveled to Cedar Rapids and met with Mr. Siems, Angie Morrison, Chief Financial Officer for the school district, and Doug Wheeler, superintendent for the school district. The school officials informed Mr. Wuehr that Apex had left the site and that Apex was responsible for the asbestos release since Apex removed the carpet and mastic months ahead of the abatement schedule. Mr. Wuehr asked that the school remain closed until an asbestos abatement contractor could decontaminate the school. The school district agreed with the request.

Following the meeting on December 29, 2021, Mr. Wuehr visited Prairie Crest Elementary School and confirmed that the building was secure. Mr. Siems stated the school district was in the process of making the arrangements for the asbestos abatement contractors to begin work. Ecco Midwest, Inc. and Robinson Brothers were the asbestos abatement contractors the school district intended to use for the cleanup project.

On December 28, 2021 and December 29, 2021, Ecco Midwest, Inc. and Robinson Brothers submitted asbestos notifications to DNR for an emergency renovation to decontaminate Prairie Crest Elementary School. During the decontamination project, containment was established with a negative air

system. All remaining carpets, flat surfaces and ceiling areas were cleaned, as were the inside of all lockers in the impacted area. Any remaining black mastic in the hallways was removed.

On January 6, 2022, Mr. Wuehr traveled to Cedar Rapids and noted that the school building was posted as closed at the time of the visit. The abatement and decontamination work ended soon after Mr. Wuehr's visit and the students and teachers were able to return to the building for the start of the new semester.

On February 1, 2022, Mr. Wuehr requested all information regarding the incident from the school district, which was provided the following day. The school district and Apex retained law firms to represent them. On March 30, 2022, Mr. Wuehr spoke to Jason Willis with Apex. Mr. Willis stated that the school district failed to warn Apex about the presence of the asbestos. However, the document provided by the school district as well as from Mr. Siems indicated this was not correct. It was confirmed that the plans and schematics with asbestos abatement projects were provide to and downloaded by Apex representatives in May 2021.

On March 30, 2022, DNR issued a Notice of Violation letter to the school district and Apex. The letter included the following violations: 1) failure to notify of the renovation project; 2) failure to follow emission control procedures; 3) failure to keep material wet; and 4) failure to have a trained suprvisor onsite. The letter informed the parties the matter may be referred for further enforcement. On November 2, 2022, DNR sent a letter to Apex informing them that this matter was scheduled for the November 2022 EPC meeting.

B. APPLICABLE LAW

Iowa Code section 455B.133 provides for the Environmental Protection Commission (Commission) to establish rules governing the quality of air and emission standards. Pursuant to Iowa Code section 455B.133, 567 Iowa Administrative Code (IAC) section 23.1(3) was established, which adopts by reference the federal regulations regarding asbestos removal. The United States Environmental Protection Agency has delegated to the State of Iowa the authority to implement and enforce the demolition and renovation portions of the federal asbestos NESHAP, found at 40 CFR part 61, subpart M.

40 CFR section 61.145(b)(1) requires written notification of demolition to be submitted to the DNR prior to beginning renovation. The specific requirements for this notification are contained in the subsection. The DNR has no evidence that a notification was ever submitted prior to the renovation work of Apex removing the carpet and mastic. The facts in this case indicate violations of this provision.

40 CFR section 61.145(c) details the procedures for asbestos emission control and states that each owner or operator to whom the provisions apply shall

comply with the procedures. The facts in this case indicate that Apex was not in compliance with these provisions when the renovation occurred.

40 CFR 61.145(c)(1) provides that all regulated asbestos containing material shall be removed from a regulated facility before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. No asbestos abatement occurred prior to the carpet removal. Dry asbestos containing material was found in the school six months after the removal occurred. The facts in this case indicate violations of this provision.

40 CFR 61.145(c)(6)(i) provides that all regulated asbestos containing material, including material that has been removed or stripped, shall be adequately wet and shall remain wet until collected and contained. Proper asbestos abatement did not occur prior to the renovation. No asbestos abatement occurred prior to the carpet removal. Dry asbestos containing material was found in the school six months after the removal occurred. The facts in this case indicate violations of this provision.

40 CFR 61.145(c)(8) provides that effective one year after promulgation of this regulation, no regulated asbestos containing material shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management level person or other authorized representative, trained in the provisions of this regulation and the means of complying with them, is present. The facts in this case indicate there was not a trained supervisor on site during the carpet and mastic removal. The facts in this case indicate noncompliance with this provision.

40 CFR 61.150 contains standards for asbestos waste disposal for demolition and renovation operations. Specifically, **40 CFR 61.150(a)(1)(iii)** provides that all asbestos containing waste materials, while wet, shall be sealed in leak-tight containers or wrapping. Apex mechanically removed the carpet and mastic with no evidence that water was used or that the debris was sealed in leak tight containers. The facts in this case indicate violations of this provision.

V. Witnesses

DNR staff, Tom Wuehr, will be potential witness. Mr. Wuehr will be available during the EPC meeting to answer additional questions.