

**PUBLIC PARTICIPATION RESPONSIVENESS SUMMARY
FOR IOWA'S 2016
SECTION 303(d) LIST OF IMPAIRED WATERS**

**IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
WATER QUALITY BUREAU
WATER QUALITY MONITORING & ASSESSMENT SECTION**

November 28, 2017

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INTRODUCTION:

The following constitutes a summary of the Iowa Department of Natural Resources (Iowa DNR) responses to the comments received in response to the draft 2016 Section 303(d) list of impaired waters as developed by the Iowa DNR. Notice of availability of the draft 2016 list was published on April 14, 2017, in the *Des Moines Register* (Appendix 1). In addition, notice of the availability of the list was posted on the Iowa DNR’s Twitter feed on April 14, 2017 (<https://twitter.com/iowadnr/status/852979775987736579>) and an Iowa DNR news release on April 14, 2017 (<http://www.iowadnr.gov/About-DNR/DNR-News-Releases/ArticleID/1274/Public-comment-sought-for-impaired-waters-list>). Additional materials for the draft 2016 list were available at the Iowa DNR’s “impaired waters” web site (<https://programs.iowadnr.gov/adbnet/Assessments/Summary/2016>). Public comments were accepted from April 14 through May 29, 2017. As distributed for public comment, Iowa DNR’s draft 2016 Section 303(d) list included 608 water segments with a total of 818 impairments.

Persons and agencies providing comments on Iowa’s draft 2016 Section 303(d) list are summarized in Appendix 2. Seventeen sets of comments were received and copies of these comments are included in Appendix 3. Changes to the draft list were also made as a result of ongoing reviews and comments by Iowa DNR staff. This responsiveness summary provides a discussion of the issues raised by the comments received and how their comments were incorporated into the development of Iowa DNR’s final 2016 list.

Changes made to Iowa’s final 2016 impaired waters list:

For the final list, one impairment rationale was updated from the draft list (Tables 1 and 2). The impairment rationale for Bacteria: Indicator Bacteria, E. coli within the Class A1 Primary Contact Recreation class was incorrectly identified as “Significantly > 10% of samples fail to meet criterion”. The impairment rationale was updated to “Geometric mean criterion exceeded”.

These changes to the Iowa DNR’s final 2016 list of impaired waters (Integrated Report Category 5) did not affect the total number of impaired waterbodies or the total number of impairments.

Table 1. Impairments not on Iowa's May 19, 2015, draft Section 303(d) list that were added to Iowa's final list.

ADB Code	Legacy ADBCode	Water-body Name	Water-body on draft list?	Location Description	Impaired Use	Cause	Impairment Rationale
IA 05-CHA-1308	IA 05-CHA-0010_2	Chariton River	Y	FROM THE HIGHWAY 2 CROSSING (S27, T69N, R17W, APPANOOSE CO.) TO RATHBUN DAM IN S35, T69N, R18W, APPANOOSE CO.	Primary Contact Recreation	Bacteria: Indicator Bacteria, E. coli	Geometric mean criterion exceeded

Table 2. Impairments that were removed from Iowa's May 19, 2015 draft 303(d) list for Iowa's final list.

ADB Code	Legacy ADBCode	Water-body Name	Location Description	Impaired Use	Cause	Impairment Rationale	De-listing Rationale
IA 05-CHA-1308	IA 05-CHA-0010_2	Chariton River	FROM THE HIGHWAY 2 CROSSING (S27, T69N, R17W, APPANOOSE CO.) TO RATHBUN DAM IN S35, T69N, R18W, APPANOOSE CO.	Primary Contact Recreation	Bacteria: Indicator Bacteria, E. coli	Significantly > 10% of samples fail to meet criterion	Incorrect impairment rationale identified

RESPONSES TO COMMENTS RECEIVED ON THE 2016 IMPAIRED WATERS LIST:

The Department acknowledges and thanks all for their comments on the 2016 Impaired Waters List.

COMMENTS 1: Bruce Perkins, US EPA Region 7:

Date Received: May 23, 2017, e-mail

Comment:

Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Comment on 2016 Iowa section 303(d) list
1 message

Perkins, Bruce <Perkins.Bruce@epa.gov> Tue, May 23, 2017 at 2:55 PM
To: "daniel.kendall@dnr.iowa.gov" <daniel.kendall@dnr.iowa.gov>

I have one comment on the public notice version of the draft 2016 Iowa section 303(d) List. I used the links in the ADB to review the habitat impairment (4c) of Jordan Creek.

The rapid habitat assessments data for Jordan Creek 05-NSH-1459 (legacy 05-NSH-0133_0) were for a glide/pool type in 2009 and a riffle/run type in 2013. The other data had habitat summary statistics which didn't assign scores to the parameters identified as did the rapid assessments. The 2009 rapid habitat assessment listed sediment deposition, pool substrate characterization and bank stability as marginal and epifaunal substrate/available cover as poor. In the rapid assessment for 2013 the parameters that were scored as poor included both embeddedness and sediment deposition as well as frequency of riffles/bend. While the physical structure of the stream is habitat, the deposition of sediment which leads to embeddedness is the loading of the pollutant of sediment. Please explain in depth how habitat outside of sediment is being used to justify the delisting of Jordan Creek to a category of impaired-no TMDL required, or should this water continue to be listed for biology because of the effect of sediment.

Bruce Perkins
Regional Integrated Report / TMDL Coordinator
US EPA Region 7
Water Wetlands and Pesticides Division
Water Quality Management Branch
11201 Renner Blvd., Lenexa, KS 66219
(913) 551 7067

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Iowa DNR Response: The Iowa DNR believes that Jordan Creek (05-NSH-1459) was justifiably moved to category 4c for the 2016 Integrated Report (IR) cycle based on historical and irreversible stream habitat modifications in the watershed.

Historically, Iowa DNR has not used the qualitative rapid habitat assessment for IR reporting or listing purposes nor for determination of causes and/or sources of impairments. The rapid habitat characterization is a qualitative assessment and not an in-depth quantitative assessment like the intensive physical habitat assessment protocol. During the Jordan Creek 2013 sampling, the riffle/run rapid habitat form was completed instead of the more applicable glide/pool rapid habitat form (the glide/pool form was used in 2009). Based on the results of the full quantitative habitat sampling conducted in 2013, there was no rock substrate in the sampling reach to estimate embeddedness and no riffles were present to estimate riffle distance. Intuitively, scores for those metrics will decrease greatly when the incorrect rapid habitat form is used.

The results of a quantitative analysis of physical habitat conditions in Jordan Creek in combination with the examination of historical aerial photographs and stream channelization records indicate that irreversible habitat modifications caused by channelization have led to slightly depressed Fish Index of Biotic Integrity (FIBI) scores over the last 14 years. Jordan Creek failed the standard Biological Impairment Criteria (BIC) only for the FIBI scores (1/3 passing scores) but not Benthic Macroinvertebrate Index of Biotic Integrity (BMIBI) scores (2/3 passing scores) in the last 14 years. Additionally, the FIBI scores have passed the Ecoregion Fish Habitat Index (EFHI) scores 3/3 times since 2001 (see <http://publications.iowa.gov/21408> and further explained below).

The EFHI model predicts the mean FIBI score a stream reach can be expected to achieve based on the data collected during the quantitative physical habitat assessment. The model analyzes twenty-five habitat metrics representing bank condition, stream canopy coverage (shade), channel dimensions, macrohabitat (bedform), instream cover, and bottom substrate composition. For the 2016 IR biological assessment, Iowa DNR staff used reference condition guidelines for evaluating the likelihood that physical habitat conditions are a primary factor in preventing a given stream site from attaining the FIBI BIC.

The difference between the observed FIBI and the predicted FIBI level (i.e., the EFHI score) is an indicator of how accurately the fish assemblage condition reflects the condition of physical habitat at the sampling site. For example, a large negative difference in FIBI-EFHI suggests that other factors besides habitat, such as water quality or the presence of fish movement barriers, could be contributing to a lower than expected FIBI score based on physical habitat characteristics alone.

In the case of Jordan Creek, the observed FIBI scores are slightly-to-moderately greater than the EFHI-predicted FIBI scores. These results suggest that water quality and/or other factors besides physical habitat do not limit the stream's ability to meet the FIBI BIC. The fact that EFHI levels are below the FIBI BIC is an indication that Jordan Creek will have difficulty meeting the FIBI BIC because of habitat conditions at the site.

Sample Date	FIBI	BIC	EFHI	FIBI-BIC	FIBI-EFHI	EFHI-BIC
9/17/2013	38	31	24	7	14	-7
7/27/2009	25	31	18	-6	7	-13
8/1/2001	23	31	22	-8	1	-9

FIBI, Fish Index of Biotic Integrity; BIC, Biological Impairment Criterion;
EFHI, Ecoregion Fish Habitat Index.

The most prominent habitat limitations are bottom substrate and channel morphological characteristics that are not consistent with supporting the ecoregion-based goal for fish assemblage condition. Based

on the EFHI model, both the level of silt and the level of clay substrate exceed acceptable levels. The low amount of channel width variability, increased percentage occurrence of the dominant macrohabitat type, and the reduced thalweg width: depth ratio also fell out of acceptable levels in the EFHI-model. The occurrence of these habitat characteristics is consistent with descriptions of streams that have been impacted by stream channelization as reported in several studies in Iowa and elsewhere (e.g., Bulkley 1975; Lau et al., 2006; Paragamian 1987, 1990; Rowe et al 2009a, 2009b).

Studies conducted in Iowa and elsewhere have described and quantified the negative impacts from channelization on stream habitat and fish populations. As described by Bulkley (1975): "In addition, shortening and straightening the stream increases the gradient and thereby the velocity of water flow. This rapid water movement in turn causes extensive erosion of the stream bed and increased bedload in many areas..." "Much habitat for desirable fishes and other aquatic organisms is destroyed, and remaining habitat is usually of poor quality and lacking in diversity."

Stream channelization is widespread in Iowa and is particularly evident in Southwest Iowa where Jordan Creek is located. An extensive study of channelization of Iowa streams, estimated that between 1000 and 3000 miles of stream were lost to channel straightening (Bulkley 1975). The average reduction in length documented in major projects was 45%. Most of the major long-reach channelization projects occurred in the late 19th and early 20th centuries; however many smaller projects were completed in subsequent decades.

A major channelization project occurred on the West Nishnabotna River in Mills and Fremont counties between 1900 and 1929. The Jordan Creek subwatershed is located in the West Nishnabotna basin upstream of the channelized segment. The project resulted in a 45% reduction in stream length from 100 miles before the project to 55 miles afterwards. The high proportion of stream miles with low measured sinuosity is indicative of extensive channelization across Iowa and is particularly evident in Southwest Iowa where Jordan Creek is located.

The series of aerial photographs (located at the end of this document) show significant channelization has occurred in the Jordan Creek watershed and the Farm Creek watershed into which Jordan Creek flows downstream of the sampling site. The visual evidence of channelization dates back at least to the 1930s, which is consistent with major channelization work in the Nishnabotna River downstream of the Jordan Creek watershed. By the 1970s and later (post-CWA enactment), there is no apparent visual evidence of additional channelization in the vicinity of the Jordan Creek sampling site.

Based on the available sampling data and historical evidence of channelization, Iowa DNR has concluded that habitat conditions are limiting the attainment of aquatic life use goals in Jordan Creek. These limitations are predominantly a consequence of long-term changes in hydrology and land use that pre-date enactment of the Clean Water Act. For these reasons, Iowa DNR believes it is inappropriate to continue listing the ALU impairment in Jordan Creek as a Category 5 pollutant-based impairment. The sedimentation issue at the sampling site, which was raised in EPA's comments, is more a consequence of bed erosion caused by channelization and not upland soil erosion. The problem cannot be solved by applying Best Management Practices in agricultural fields of the watershed. While these practices may certainly be beneficial for reducing soil erosion and thereby assist in reducing the amount of soil particles entering the stream, by themselves, they will not fix the main problem of channel instability and erosion caused by the stream's adjustment to systemic channelization impacts in the watershed. For these reasons, the Iowa DNR has concluded the impairment is more appropriately assigned to Category 4c as a habitat alteration impairment.

Bulkley, R.V. 1975. A study of the effects of stream channelization and bank stabilization on warm water sport fish in Iowa. Subproject No. 1. Inventory of major stream alterations in Iowa. Completion Rep. U.S. Fish & Wildlife Service Contract No. 14-16-0008-745. 373p.

Iowa Department of Natural Resources 2015. Fish Habitat Indicators for the Assessment of Wadeable, Warmwater Streams. 56p.

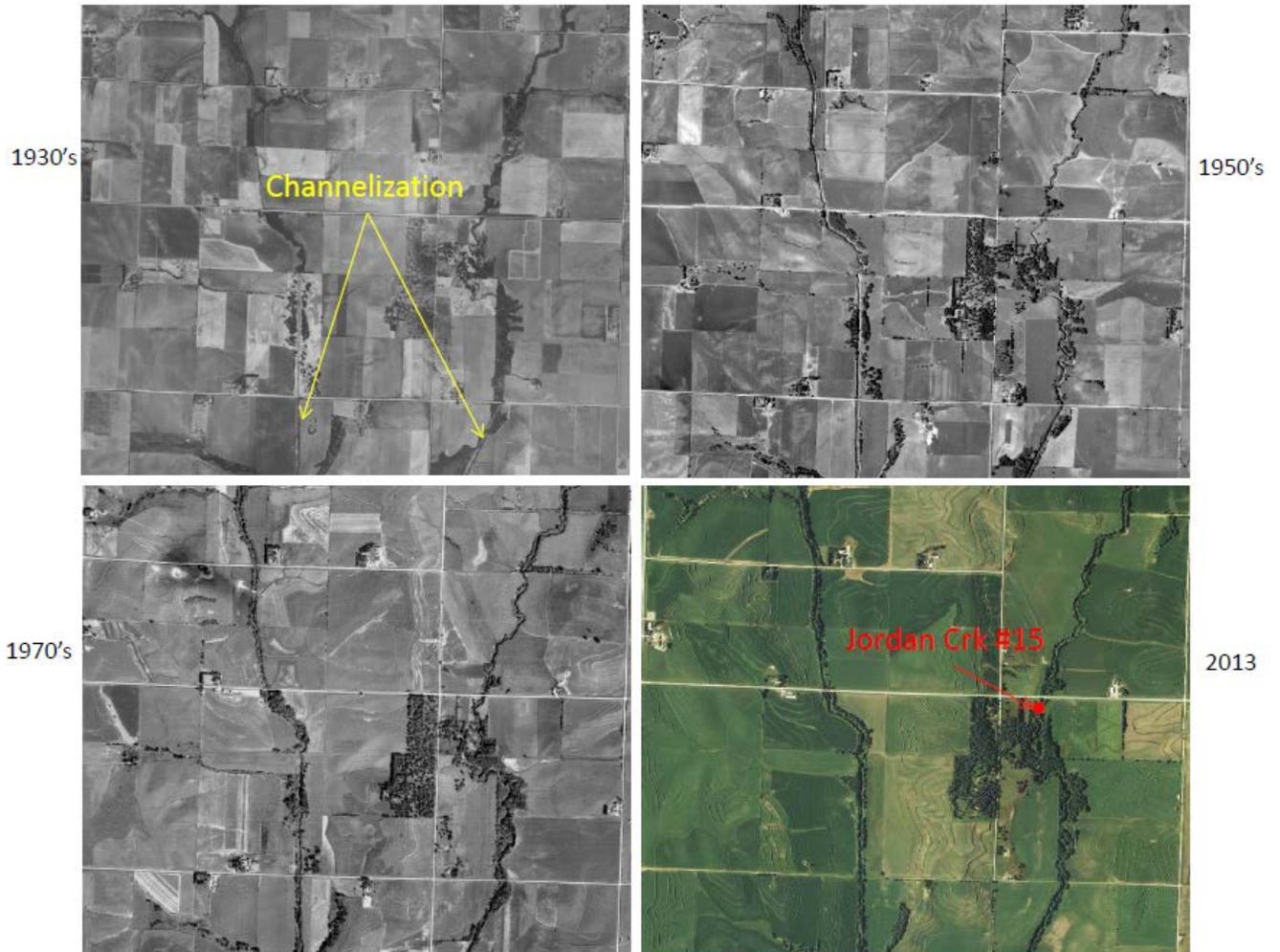
Lau, J.K., T.E. Lauer, and M.L. Weinman 2006. Impacts of channelization on stream habitats and associated fish assemblages in East Central Indiana. *Am. Midl. Nat.* 156:319-330.

Paragamian, V.L. 1987 Standing Stocks of Fish in Some Iowa Streams, with a Comparison of Channelized and Natural Stream Reaches in the Southern Iowa Drift Plain. *Proc. Iowa Academy of Science* 94(4): 128-134.

Paragamian, V.L. 1990. Fish populations of Iowa rivers and streams. Technical Bulletin No. 3. Fish and Wildlife Division, Iowa Department of Natural Resources. 47p.

Rowe, D.C., C.L. Pierce, and T.F. Wilton. 2009a. Fish assemblage relationships with physical habitat in wadeable Iowa streams. *North American Journal of Fisheries Management* 29:1314-1332.

Rowe, D.C., C.L. Pierce, and T.F. Wilton. 2009b. Physical habitat and fish assemblage relationships with landscape variables at multiple spatial scales in wadeable Iowa streams. *North American Journal of Fisheries Management* 29:1333-1351.



Aerial photographs showing the landscape and stream network surrounding the Jordan Creek #15 biological sampling site. Evidence of channelization in Jordan Creek (right branch) and the neighboring watershed (Farm Creek) is visually apparent in the 1930s. The general direction of stream flow is from north to south (top to bottom).

1950's



1960's



1970's



2013



Aerial photographs showing the local area surrounding the Jordan Creek #15 biological sampling reach and channel straightening that appears to have been done around the 1960s immediately upstream from the E/W road bridge and the sampling reach.

COMMENTS 2: Susan Heathcote, Water Programs Director, Iowa Environmental Council, Des Moines, Iowa:

Date Received: May 26, 2017, e-mailed letter

Comment:



521 East Locust Street, Suite 220
Des Moines, Iowa 50309-1939
515.244.1194 phone
iecmail@iaenvironment.org
www.iaenvironment.org

May 26, 2017

Dan Kendall
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

Re: Comments on Draft 2016 Impaired Waters List

Thank you for the opportunity to comment on Iowa DNR's proposed 2016 Section 303(d) list of impaired waters. Our comments represent the views of the Iowa Environmental Council, an alliance of over 60 organizations, and at-large board members from business, farming, the sciences and education, as well as individual members.

We have reviewed Iowa's draft list that includes 608 impaired waters in Category 5 of the Integrated Report, as well as the methodology used by Iowa DNR in creating this list. We would like to offer the following comments.

The March 28, 2017 draft "Methodology for Iowa's 2016 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b) and 303(d) of the Federal Clean Water Act" does not include a methodology for reviewing the frequency and severity of cyanotoxin levels in recreational waters or drinking water sources. The presence of cyanotoxins, including microcystin, in Iowa waters is a growing concern for public health and safety of Iowa waters.

Since 2006, Iowa DNR has been conducting weekly monitoring at Iowa's 35 state park beaches for microcystin during the recreational season that extends for 15 or 16 weeks (depending on the year) from Memorial Day to Labor Day. The DNR posts "no swimming" advisories when microcystin levels are found above 20 ug/l in samples from the beach area.

Despite the lack of numeric water quality criteria for microcystin and a specific Iowa assessment and listing methodology, we believe the DNR's weekly beach monitoring data and protocol for posting swimming advisories provides sufficient evidence of a recreational use impairment at several of the state park beaches, based on Iowa's narrative water quality standard. Reducing the

frequency and severity of cyanotoxins is critical for ensuring the safety and health of people swimming in Iowa's recreational waters.

Based on our review of the DNR beach monitoring data for the 2010 – 2014 recreational seasons, we suggest that five lakes be added to Iowa's 2016 303(d) list due to recreational uses impaired by microcystin: Black Hawk Lake, Lake of Three Fires, Union Grove Lake, Lake Geode, and Big Creek Lake. All of these lakes have had eight or more weekly advisories posted over the 5-year assessment period for the 2016 list, which represents swimming advisories for 10% or more of the weeks monitored.

From 2010 – 2014, Black Hawk Lake had 11 weekly microcystin advisories at Denison Beach and 10 weekly advisories at the Black Hawk Lake Campground Beach; Union Grove Lake and Lake of Three Fires both had 9 weekly microcystin advisories; and Big Creek Lake and Geode Lake both had 8 weekly microcystin advisories.

We further suggest that Iowa DNR develop and add a methodology for evaluating and listing recreational waters as impaired due to cyanotoxins to Iowa's Draft "Methodology for Iowa's 2016 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b) and 303(d) of the Federal Clean Water Act". This methodology would provide important protections to ensure the health and safety of Iowa recreational waters.

Thank you for the opportunity to comment. We look forward to continuing our work with the Iowa Department of Natural Resources to address water quality impairments affecting the beneficial uses of Iowa lakes, rivers and streams.

Sincerely,



Susan Heathcote
Water Program Director
Iowa Environmental Council

Iowa DNR Response: During the assessment period, the Iowa DNR collected cyanotoxin (toxins produced by cyanobacteria also known as blue-green algae) data at the beaches for advisory purposes. Impairing waterbodies for cyanotoxins would be difficult at this time because there are currently no state or national criteria established for these toxins. The U.S. EPA is currently working on recreational

criteria for the cyanotoxins Microcystin and Cylindrospermopsin. The criteria are draft and currently under review. In addition to the criteria, the U.S. EPA is also working on a guidance document, for states, on implementing the criteria for both recreational advisories and assessments which will help address assessment and permitting issues relating to magnitude and duration. Once these criteria have been finalized, the Department will review the results of that work for applicability in Iowa.

The Department posted advisory warning signs during the assessment period which discourage swimming or other contact with the water, due to measured concentrations of toxins above the 20 ug/L threshold selected by the state to protect of public health. While some of the public may treat these advisories as a warning not to swim in posted areas, these advisories do not close the beach or prohibit the public from entering the water. The E. coli and cyanotoxin monitoring program is an advisory level program designed to help protect public health at the State-owned beaches and advise the public to make an informed decision about recreating in the water.

COMMENTS 3: Rob Davis, Iowa:

Date Received: May 29, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Comments to the 2016 impaired waterway list
1 message

Rob Davis <davis.t.rob@gmail.com> Mon, May 29, 2017 at 8:13 PM
To: daniel.kendall@dnr.iowa.gov

Dear Mr. Dan Kendall,

I appreciate the public comment period for the statewide impaired waterway biennial report. After having seen several years of impaired waterway reports for the Middle Raccoon River and Brushy Creek, most efforts conducted by volunteers or by the Iowa Soybean Association, I was not surprised to see that the entirety of Brushy Creek is listed as impaired. However, the Middle and South Raccoon Rivers have been similarly impacted (sediment, nitrate concentrations, poor IBI scores) yet neither river has been designated as an impaired waterway. This greatly surprises me as all the data I have personally seen overwhelmingly indicates that the Middle and South Raccoon Rivers are impaired waterways. I recently contacted the DNR for a report on bacterial and E. coli loads to determine whether swimming or kayaking on the Middle Raccoon River near Coon Rapids, Iowa was wise - yet no bacterial or E. coli samples have been taken to date. I would note that the river has not yet been fully sampled after even 18 years of reporting by the state of Iowa if no sample data is available at this time. Based upon this fact I must question the validity of the 303(d) report if basic water sampling of waterways has not been completed.

I would appreciate your help in better understanding the water quality sampling process for the state of Iowa. Specifically, are all rivers tested in order to ensure that the Section 303(d) report is representative of all rivers and lakes? In addition, at what date will all rivers have been tested in order to provide an accurate inventory of impaired waterways?

I appreciate you efforts to ensure that the waterways of Iowa are protected and I look forward to your response.

Sincerely,
Rob Davis

Iowa DNR Response: With current resources, the Department is unable to monitor all of Iowa's 18,468 miles of designated river and stream segments out of 92,852 total miles of streams, 333 lakes and reservoirs, and 156 wetlands on a regular basis. This results in gaps in monitoring information, such as the lack *E.coli* data, needed to assess the status of Class A recreational uses in the Middle Raccoon and South Raccoon rivers. More information about the Department's long-term plans to improve monitoring capabilities can be found in the Ambient Water Monitoring Strategy for Iowa: 2016-2021 (<http://publications.iowa.gov/23682/>). While it might not be feasible to monitor every waterbody in the

State for all water quality parameters of interest, the ambient monitoring program strives to monitor all waterbody types and geographic regions of Iowa in a way that maximizes the usefulness of monitoring information for water quality stakeholders and the public.

With respect to specific comments regarding impairments of the Middle Raccoon and South Raccoon rivers, the Department makes its designated use assessment decisions using all available data and applying Iowa's existing water quality standards. The Iowa DNR follows an established assessment methodology which lays out the assessment process and criteria (<http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Monitoring/Impaired-Waters>).

As the commenter correctly points out, the Class A uses in the Middle Raccoon and South Raccoon rivers currently stand as "not assessed" or "evaluated" due to a lack of monitoring data. In regards to other impairments, biological monitoring data from a single sampling event suggests that a potential impairment exists for the Middle Raccoon River segment in Carroll County and Guthrie County <https://programs.iowadnr.gov/adbnnet/Assessments/2270>. Further downstream in Guthrie County, a single biological sample suggests that aquatic life uses are being achieved; however insufficient data exist for a full "monitored" assessment. <https://programs.iowadnr.gov/adbnnet/Assessments/2269> Biological samples from at least two years within the most recent five-year assessment period are required for a "monitored" assessment or to identify a waterbody as impaired for the 303(d) list of impaired waters. Additional fish sampling of the Middle Raccoon River between the Lake Panorama Dam and the Redfield Dam by the Iowa DNR Fisheries Bureau in 2011 suggest potential aquatic life use impairment; however, because sampling data from at least two years in the most recent five-year assessment period are not available, the assessment status is "evaluated" <https://programs.iowadnr.gov/adbnnet/Assessments/2446>.

The range of fish IBI scores sampled from the Middle Raccoon River from 2002-2011 is 18 (Poor) to 59 (good). The average score is 35.3 (Fair), slightly below the applicable FIBI Biological Impairment Criterion of 36. Just one of the six scores was rated as representing "Poor" condition. Only two Benthic Macroinvertebrate IBI scores are available; both are 53 (Fair), slightly passing in comparison to the Biological Impairment of 51. Based on all available data, the biological health condition of the Middle Raccoon is appropriately characterized as "Fair" with potential for a slight impairment of fish assemblage condition.

Biological monitoring ratings for the South Raccoon River fish assemblage condition range from "Poor" to "Good" among three sampling locations scattered from the headwaters to the lower reaches of the river. Only one score, the headwater sampling site was rated as having "Poor" fish assemblage condition and a potential biological impairment based on a single sample in 2003 <https://programs.iowadnr.gov/adbnnet/Assessments/2028>. One of the three sites located at Nations Bridge County Park near Stuart is designated as a least disturbed reference site where fish and benthic macroinvertebrate assemblage IBI scores mostly fall in the "Good" range since 2000 <https://programs.iowadnr.gov/adbnnet/Assessments/2268>. This segment is currently identified as impaired due to a 2014 fishkill event caused by an anhydrous ammonia fertilizer spill originating in Brushy Creek and extending downstream into the South Raccoon River.

With the exception of the fishkill impairment, the segments of the Middle Raccoon and South Raccoon rivers that are assessed as potentially impaired are included on the Iowa DNR's list of waters in need of further investigation (WINOFI).

COMMENTS 4: Jim Beatty:

Date Received: May 20, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

impaired waters
1 message

James Beatty <beatagh02@gmail.com> Sat, May 20, 2017 at 10:02 AM
To: daniel.kendall@dnr.iowa.gov

After searching the list I find it unclear as to what the report tells me on Holiday Lake. (IA 02-IOW-637) It is on the list of impaired water but not exactly how it is impaired. What do I look for? What do the numbers indicate? All seems to say insufficient data. Your help would be appreciated.

Jim Beatty

Iowa DNR Response: Iowa DNR responded to Mr. Beatty's email with: "Holiday Lake is not currently on the 303(d) impaired waters list. It is, however, on the 305(b) list of inventoried waterbodies. This list includes the 303(d) list along with fully supporting water bodies and unassessed waterbodies. Because the Iowa DNR does not currently sample privately owned lakes as a part of either the Ambient Lake Monitoring Program or the State Beach testing program, there is no data to make an assessment of the water body and therefore it is listed as not assessed due to insufficient data."

RESPONSES AND ACTIONS TO COMMENTS RECEIVED ON GENERAL WATER QUALITY COMMENTS:

The Iowa DNR received the following emails on general water quality during the public comment period. While these comments are not directly applicable to Iowa's 2016 Impaired Waters List, these comments were forwarded on to more appropriate contacts within the Department.

COMMENTS: Mr. Kenneth Ondracek, Avoca, Iowa:

Date Received: April 27, 2017, letter

Comment:

Mr. Kendall, April 25, 2017
Re: your article on various water quality in our beloved state of Iowa.
For 12 years my wife Kathi and I myself have had to carry large bottles, and small plastic containers of drinking water — I am 79+ and am slowly aging. Soon I will no longer be capable of lifting these heavy weights of water. We have a contaminated shallow well which we have spent a lot of funds hoping the final result would be potable water for consumption. All avenues were a failure for we still cannot drink our water.
Can you help us? There is a rural water treatment facility less than two miles from our property.
Again, "can you help us?"
Thank you and God bless,
Kenneth and Kathi Ondracek
31795 460th St. Avoca, Ia 51521
Tel: 712-323-2120



Farm Monthly

April 2017 Atlantic News Telegraph 11

Public comment sought for impaired waters list

DES MOINES -- The DNR is seeking public comment on the newly released draft impaired waters list. Data released by the Iowa Department of Natural Resources, today, shows 56 impairments will be removed from the 2014 impaired list, once approved by the EPA.

Of the 1,378 water segments studied, which include portions of rivers, streams, lakes, reservoirs, and wetlands, 397 segments fully met the Iowa water quality standards for their intended use, while 301 segments were identified as waters in need of further investigation and 750 segments did not fully meet the standards needed for their intended use and were impaired.

"The increase in impaired waters does not necessarily mean that the water quality in the state is worsening, it often is a reflection of the additional monitoring we are conducting," said Roger Bruner, supervisor of the DNR's Water Monitoring and Assessment section.

This report identifies surface waters that do not fully meet all applicable state water quality standards for their intended use and that need a water quality improvement plan.

The DNR uses fixed station river monitoring, lake monitoring and

beach monitoring, wadeable stream biological monitoring, fish contamination monitoring and wetland/shallow lakes monitoring.

Several other data are also analyzed before determining whether a water segment does or does not meet the requirements like the DNR's Fish Kill database, along with federal and municipal data and surrounding states' data.

All Iowa waters are designated for a combination of aquatic life protection, water contact recreation, drinking water and human health protection.

"The DNR works diligently to identify impaired waters and coordinates with stakeholders on improving those areas to eventually remove them from the list by sponsoring and funding watershed projects throughout the state," said DNR Director Chuck Gipp.

The DNR works to identify and improve Iowa's water quality and looks forward to working together with landowners and the public. Therefore, public comment is encouraged now through May 29, 2017 and should be sent to:

Iowa Department of Natural Resources

Attn: Dan Kendall

Water Quality Monitoring & Assessment Section

Wallace State Office Building

502 East 9th Street

Des Moines, Iowa 50319

Journalian

Iowa DNR Response: Iowa DNR appreciates the concern the commenter has for their drinking water quality and the failure of their private well. Mr. Ondracek's inquiry was forwarded to the Iowa DNR's Private Well Program Coordinator. The program coordinator contacted the local county and passed on their contact information so they potentially can arrange water testing and further assistance.

COMMENTER 6: Phyllis and Rick Ruppert, live near the Iowa River:

Date Received: May 20, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

water quality
1 message

rpruppert@aol.com <rpruppert@aol.com> Sat, May 20, 2017 at 10:08 AM
To: daniel.kendall@dnr.iowa.gov
Cc: rpruppert@aol.com

Hello Dan,

Well, our 2017 Legislature sure hasn't helped the DNR with its efforts to clean up Iowa water bodies, has it. It is important to average Iowans like us, and we did let our legislators know that. Bobby Kaufmann was the only person to respond, and he isn't even our Iowa City rep. What can we do?

Rep. Kaufmann presented a strong case for the 3/8 cent sales tax increase, which we strongly support. Do you feel this is something to continue striving for or should our efforts be focused on other causes to help the DNR? Please don't give up. We want to help toward a solution.

Sincerely,
Phyllis and Rick Ruppert
proud to live near the Iowa River

Iowa DNR Response: The Department thanks you for your comment and support. We shared your comment with the Department's legislative liaison.

COMMENTER 7: Glenn Nelson, Janesville, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Impaired Waterways Comment/Lament
1 message

Glenn Nelson <glenn.nelson@uni.edu> Tue, May 30, 2017 at 10:53 AM
To: daniel.kendall@dnr.iowa.gov

As a homeowner whose eastern boundary is the middle of the Shell Rock river, words alone cannot express my concern over its sorry state. I fully support the NROR Trust Fund and hope you and I can be successful in "Leading Iowans in caring for our natural resources".

Glenn Nelson
Janesville, Iowa

Iowa DNR Response: The Department thanks you for your comment and support. We shared your comment with the Department's legislative liaison.

COMMENTER 8: Mr. & Mrs. Ronald J. Davidson, Clive, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Water Quality
1 message

Ron Davidson <rjd1976@outlook.com> Tue, May 30, 2017 at 9:57 AM
To: "daniel.kendall@dnr.iowa.gov" <daniel.kendall@dnr.iowa.gov>

Mr. Kendall,

Providing a list of Iowa's impaired waterways is the same as providing a list of our crumbling infrastructure. It means nothing if there's no money to clean our waterways or repair our infrastructure. Until the legislature/government provides funding the lists will keep growing. The DNR and every concerned citizen MUST keep the pressure on politicians for proper funding!

Thank you,
Respectfully,
Mr. & Mrs. Ronald J. Davidson
Clive, 50325

Iowa DNR Response: The Department thanks you for your comment and support. We shared your comment with the Department's legislative liaison.

COMMENTER 9: Roger Kuhle, Indianola, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Indianola wastewater plant
1 message

Roger Kuhle <rjkuhle@aol.com> Tue, May 30, 2017 at 9:36 PM
To: daniel.kendall@dnr.iowa.gov

Mr. Kendall: as you review the degradation plan for the Indianola wastewater plant, I trust that you know how often the Middle River floods out of its banks. The area around 115 th Avenue has been flooded a number of times in our 16 years here and that includes the farm fields to the East of the road as well as the west. It's also true for areas east of Highway 65-69 where there are residences near the Carlisle bike trail. I don't do river water sports anymore but I see people kayaking and canoeing in the Middle River during good weather. Just an FYI but having seen the Middle numerous times, it would seem a no brainer to not permit a plant down there and/or waste treatment on the flats.

Roger Kuhle, 8076-104th Lane, Indianola, Ia 50125

Sent from my iPad

Iowa DNR Response: This comment was forwarded on to the NPDES permit program supervisor which is responsible for permitting such facilities.

COMMENTS 10: Rene Staudacher, Warren County, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Concern about water quality of Middle River
1 message

Rene Staudacher <stufritz@aol.com> Tue, May 30, 2017 at 1:46 PM
To: daniel.kendall@dnr.iowa.gov

Hello. My name is Rene Staudacher and I live in Warren County in the Middle River Valley area. I am also a neighbor of the land where the city of Indianola plans to place a sewage treatment plant. We use the river for recreational purposes. This includes tubing and swimming. There is also a county conservation recreational area (Lundy acres) that abuts the land owned by the city for the proposed plant. I am very concerned how the proposed plant could further negatively impact the water quality of the middle River. I understand it is already an impaired waterway. I would like to petition that the river have a total daily maximum load in regards to water quality so as to hopefully assist in it's recovery. The area is beautiful and the river could be much more of an asset in regards to recreation. But I also want it to be safe. I am advocating that we be good stewards of our land and water resources. Especially in light of weather events/ heavy rains causing increased runoff. I called Terry Kirscherman last week with some of my concerns. Thank you for your time and consideration. If you would want to call me and further discuss- my number is 515-210-2512. Thanks.

Sent from my iPhone

Iowa DNR Response: This comment was forwarded to the Watershed Improvement Section which is responsible for the development of TMDLs. The TMDL program manager followed up with the commenter.

COMMENTS 11: Eric Christensen, Indianola, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Indianola Sewage Treatment Plant
1 message

Eric Christensen <echris234@gmail.com> Tue, May 30, 2017 at 4:08 PM
To: daniel.kendall@dnr.iowa.gov

Hello -

I am a Warren County resident, and I live within a couple miles of the proposed sewage treatment plant. I am writing to ask that a total maximum daily load limit be instituted for the Middle River in order to ensure that the river remains clean and usable for activities such as fishing and tubing. I would also like to ensure that Lundy Acres (a county park nearby) is not adversely affected.

I appreciate your help in keeping our river clean.

Thanks
Eric Christensen
8918 110th Ave
Indianola IA 50125

Iowa DNR Response: This comment was forwarded to the Watershed Improvement Section which is responsible for the development of TMDLs. The TMDL program manager followed up with the commenter.

GENERAL WATER QUALITY EMAILS RECEIVED:

The Department also received the following emails on general water quality during the public comment period. However, these comments do not directly apply to Iowa's 2016 Impaired Waters List.

COMMENTS 12: Peter Maier, Ph.D., PE, Stansbury, UT:

Date Received: May 20, 2017, e-mail

Comment:

Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Why EPA never implemented the CWA
1 message

Peter Maier <pmaierp@gmail.com>
To: daniel.kendall@dnr.iowa.gov

Sat, May 20, 2017 at 10:35 AM

Dear Mr. Kendall,

Thought you might be interested in the best kept national secret that EPA never implemented the CWA, because it used an essential test (BOD) incorrect and not only ignored 60% of this oxygen exerting waste (poop), but all the nitrogenous (urine and protein) waste, while this waste, like fecal waste, exerts an oxygen demand, but also is a fertilizer for algae. By calling this waste now a nutrient and blaming it mostly on farmers, the public has been successfully kept in the dark. Therefore no more new regulations or lawsuits until EPA first acknowledges three major sources of nutrient pollution, that are presently ignored.

1. The lack of nitrogenous (urine and protein) waste treatment in municipal sewage, due to a faulty test and also causes nutrient pollution. Wp.me/p5COh2-2C
2. Septic tanks do not treat sewage, they only solubilize sewage so it can get into groundwater.
3. The impact of 'green'rain' or rain containing reactive nitrogen (fertilizer), the result of the burning of fossil fuels, the increased use of synthesized fertilizer and increased frequency of lightning storms, the result of global climate change. When this rain falls on land it stimulates the growth of grasses and brush, that become the kindle wood for the hard to control range and wildfires, during the dry season and when it, either falls directly or indirectly, via runoffs, in water, it stimulates algal growth.

The public, especially the farming communities, should demand that without, first acknowledging and quantifying these major nutrient sources, any new regulation should be halted and existing lawsuits dismissed.
Call me if you have any questions, but to understand the real cause of all the problems, read the history and description of the BOD test wp.me/p5COh2-25

Regards,
Peter Maier, PhD, PE
Tel: (435) 882-5052
www.petermaier.net

COMMENTS 13: Loren Meredith, Amana, Iowa:

Date Received: May 20, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

FW: C R Gazette Article
1 message

loren and jean <ljmere@southslope.net> Sat, May 20, 2017 at 4:11 PM
To: daniel.kendall@dnr.iowa.gov

This is in reference to the article on water quality in Iowa. First of all the hog confinement laws in this state and others are terrible. What these businesses can get away with, because of loop holes in the rules is terrible. People who own houses on land next to these confinements can't even go outside at certain times, because of the smell. And God forbid if they ever want or have to sell their land...they won't get near what it's worth, if they can sell it at all.

Next in reference to the water quality in our lakes and rivers; we are slowly killing ourselves and our children with all of the chemicals put on our fields and lawns. There are no regulations on the farmers on what they do to their land and will do to get that higher yield.

The bottom line is the almighty dollar and instead of not being able to buck city hall...in this case it's companies like Monsanto.

Thanks for listening and I can only hope it might help, if enough people write in.

Loren Meredith
Amana, Iowa

COMMENTS 14: Peggy Van Kirk, Urbandale, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Safe water
1 message

Peggy <pvan Kirk34@gmail.com> Tue, May 30, 2017 at 8:07 AM
To: daniel.kendall@dnr.iowa.gov

It is criminal that we can not take our grandchildren swimming in the lakes and rivers in Iowa. "Look, but don't touch," is the message our State is sending to the next generation. Why would young people want to move to Iowa to work when recreational opportunities are limited? Shame on us for letting this happen. Unforgivable to let it continue!

Peggy Van Kirk
Urbandale

Sent from my iPhone

COMMENTS 15: Glen Umbaugh:

Date Received: May 30, 2017, e-mail

Comment:

Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Impaired Waters List

1 message

Glen Umbaugh <glenumbaugh@yahoo.com>
Reply-To: Glen Umbaugh <glenumbaugh@yahoo.com>
To: "daniel.kendall@dnr.iowa.gov" <daniel.kendall@dnr.iowa.gov>

Tue, May 30, 2017 at 9:22 AM

Dan: I know you're just the messenger, but here is my contribution to the comment period for submission to the impaired waters list. The state of Iowa protects Iowa farmers from criminal poisoning of our waterways. They should be required, at their cost to remove poisons from waters draining directly from their fields into Iowa waterways (the world's waterways). It should be kept in mind that 20% of the Iowa economy is impacted by agriculture. Obviously, that means 80% of our economy does not have anything to do with agriculture. Personally, I will not contribute 1 cent to the DNR as long as there is continued inaction by the DNR to address seriously our water and natural resources. I won't buy a fishing license, trout stamp, subscribe to your magazines, anything. And, I will encourage others to do the same. Attached find a picture I took this spring of a newly installed field tile dumping directly into Four Mile Creek. It is located just north of the Four Mile Creek Bridge on 142nd Ave, about a 1/2 mile west of Alleman. There was another tile installed this way last spring just east of Ankeny on the county road to Bondurant (going east out of Ankeny on Oralabor Road), dumping into a stream there. This state is pathetic.

Glen



Four Mile Poisoning Pic.jpg
157K

COMMENTS 16: Ruth Smith, Ph.D., Ames, Iowa:

Date Received: May 30, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

IA Waterways
1 message

Ruth Smith <1zoitys@gmail.com> Tue, May 30, 2017 at 10:44 PM
To: daniel.kendall@dnr.iowa.gov

Dear Mr. Kendall,

I am embarrassed by the lack of funding and regulations aimed to clean up IA waterways. This is a resource that everyone could use in a state that spends so little on recreation. It is not right that so few people are allowed to have such a large impact on a hugely important resource. Our negligence affects the Mississippi and Gulf Coast waterways. At a minimum, state funding needs to be available to work to clean waterways so that we can safely swim, fish and boat. Additionally, the most recent fecal counts (showing the amount of poop we swim in) must be publicly available so that we can make informed decisions about where we chose to swim. After all, we do pay for the testing. Polluters should not be protected from the consequences of their behavior. If recreational businesses are slowed due to pollution, their voices may be an impetus for change.

Sincerely,
Ruth Smith, Ph.D.
2540 Browning Street
Ames, IA 50010

COMMENTS 17: Kylie Bowers:

Date Received: May 31, 2017, e-mail

Comment:



Kendall, Daniel <daniel.kendall@dnr.iowa.gov>

Iowa waterways
1 message

Kylie Bowers <kyliebowers@gmail.com> Wed, May 31, 2017 at 11:04 AM
To: daniel.kendall@dnr.iowa.gov

Hello-

How appalling to find out how disgusting the waterways have become. I'm sure it's similar across the US in states which have not funded clean up acts. I have an idea. How about we go after the ass holes and corporations responsible for our nasty situation. I'm so tired of hearing our Republican run government lining their pockets and fighting for big business who are destroying the planet! It cannot continue. We must demand a change. An environmental revolution! Clean water is vital to sustain life. I don't get it.

Public awareness needs to increase. This needs to be pushed into their faces on a regular basis. Laws need to change and funding needs to be funneled into these efforts. Pollution and global warming is going to slowly kill us all! I for one am willing to pay a small increase in taxes to ensure this happens and would imagine others would as well. Or even better, let's take it out of the military funding and actually worry about the state of our own people and country. It's sickening.

Thanks for caring.
Kylie Bowers

Appendix 1. Copy of public notice for Iowa's draft 2016 Section 303(d) list as published in the April 14, 2017, edition of *The Des Moines Register*.



AFFIDAVIT OF PUBLICATION

State of Iowa

County of Polk, ss.:

The undersigned, being first duly sworn on oath, states that The Des Moines Register and Tribune Company, a corporation duly organized and existing under the laws of the State of Iowa, with its principal place of business in Des Moines, Iowa, the publisher of

THE DES MOINES REGISTER

newspaper of general circulation printed and published in the City of Des Moines, Polk County, Iowa, and that an advertisement, a printed copy of which is attached as Exhibit "A" and made part of this affidavit, was printed and published in The Des Moines Register on the following dates:

Ad No.	Start Date:	Run Dates:	Cost:
0002045948	4/14/17	04/14/17	\$27.77

Copy of Advertisement
Exhibit "A"



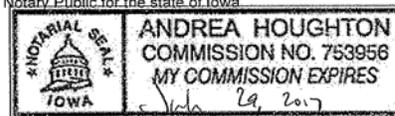
Staff member, Register Media

Subscribed and sworn to before me by said affiant this

14th day of April, 2017



Notary Public for the state of Iowa



RECEIVED

APR 19 2017

**Public Notice:
Availability of proposed list under
Clean Water Act Section 303(d)
Agency: Iowa Department of
Natural Resources**

This notice announces the availability of the draft 2016 list of waters for the state of Iowa pursuant to Clean Water Act Section 303(d). Section 303(d) requires that each state identify those waters for which existing, required pollution controls are not stringent enough to implement state water quality standards. For those waters, states are required to establish total maximum daily loads (TMDLs) according to priority ranking. Copies of the list and supporting documentation can be obtained by writing the Iowa Department of Natural Resources, Water Quality Monitoring and Assessment Section, Attn: Dan Kendall, 502 East 9th Street, Des Moines, IA, 50319. The list and supporting documentation are also available at the DNR's web site at <https://programs.iowadnr.gov/adbnet/>. Comments on this list and supporting documentation should be sent to the above address on or before May 29, 2017. Consistent with EPA regulations, Iowa DNR will then submit the list to the U.S. Environmental Protection Agency for approval.

Appendix 2. Persons and agencies providing comments on Iowa DNR's draft 2016 Section 303(d) list of impaired waters:

Commenter:	Affiliation / Location:	Date Received:
Mr. Kenneth Ondracek	Avoca, Iowa	April 27, 2017
Jim Beatty	Unknown	May 20, 2017
Phyllis and Rick Ruppert	live near the Iowa River	May 20, 2017
Peter Maier, Ph.D., PE	Stansbury, UT	May 20, 2017
Loren Meredith	Amana, Iowa	May 20, 2017
Bruce Perkins	US EPA Region 7	May 23, 2017
Susan Heathcote	Iowa Environmental Council	May 26, 2017
Rob Davis	Iowa	May 29, 2017
Glen Umbaugh	Unknown	May 30, 2017
Peggy Van Kirk	Urbandale, Iowa	May 30, 2017
Mr. & Mrs. Ronald J. Davidson	Clive, Iowa	May 30, 2017
Glenn Nelson	Janesville, Iowa	May 30, 2017
Rene Staudacher	Warren County, Iowa	May 30, 2017
Eric Christensen	Indianola, Iowa	May 30, 2017
Roger Kuhle	Indianola, Iowa	May 30, 2017
Ruth Smith, Ph.D.	Ames, Iowa	May 30, 2017
Kylie Bowers	Unknown	May 31, 2017