December 10, 2020

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RE: Draft 401 Water Quality Certification for the Nationwide Permits

Dear Ms. Schwake:

The Iowa Environmental Council (IEC) offers the following comments on the proposed Clean Water Act Section 401 Certification of the Nationwide Permits (NWPs) proposed by the U.S. Army Corps of Engineers (Corps). These comments represent the views of the Iowa Environmental Council, an alliance of 75 organizations, at-large board members from business, farming, the sciences and education, and over 500 individual members. IEC’s members hike, fish, paddle, swim, and recreate in and around wetlands, lakes, rivers, and streams throughout the state. IEC tracks section 401 certifications to keep their members apprised of how permitted projects will affect local recreation and enjoyment of Iowa’s wetlands, lakes, rivers, and streams.

IEC is concerned that the draft certifications do not meet the requirements of the Clean Water Act because they allow unnecessary degradation, fail to ensure compliance with the turbidity water quality standard, and lack adequate conditions that had previously been imposed to protect water quality.

I. IDNR’s Antidegradation Review Ignored Practicable Less-Degrading Alternatives and Did Not Demonstrate Necessity of Degradation.

Antidegradation requires an analysis of alternatives to ensure that, for waters meeting water quality standards, any “lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.”1 In considering alternatives, “the least degrading alternative that is practicable, economically efficient, and affordable should be considered the preferred pollution control alternative.”2 In considering alternatives, the applicant

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1 Iowa Admin. Code r. 567-61.2(2)(b) (Oct. 7, 2020). Because the Corps has proposed to require individual certification for outstanding waters and certain wetlands as a regional condition for the NWPs, we do not address those waters in this antidegradation discussion.

“shall evaluate a range of non-degrading or less-degrading pollution control alternatives” for the purpose of identifying “reliable, demonstrated processes or practices.” As demonstrated by the rationale IDNR developed, general permit certifications under Section 401 require antidegradation review, and the review is conducted by IDNR rather than individual permit applicants.

IDNR’s alternatives analysis for these NWPs relies entirely on the alternatives analysis conducted by the Corps. The Corps conducted its alternatives analysis to satisfy the National Environmental Policy Act for each nationwide permit. The Corps conducted an environmental assessment rather than a full environmental impact statement for which regulations define alternatives to consider. The Corps considered a no-action alternative, changes to the NWP text, discussion of the authority to issue regional conditions, and case-specific alternatives.

The set of alternatives that the Corps considered did not include the existing conditions imposed as Regional Conditions by the local Corps district or the conditions imposed by IDNR in the 401 certification. Because the IDNR relied on the Corps alternatives analysis, it did not consider the existing Regional Conditions or IDNR conditions. IDNR did not identify or describe its analysis of the proposed conditions, nor did it explain why those conditions are “the least degrading alternative that is practicable, economically efficient, and affordable” as required by the state’s Antidegradation Implementation Procedure.

As explained in Sections III and IV of these comments, the proposed conditions in the 401 certification are less protective than existing conditions. They will therefore lead to additional degradation of Iowa waters, including waters that presently meet water quality standards and are subject to Tier 2 protection under Iowa’s antidegradation rules.

Additional degradation could be allowed if the antidegradation review provided justification that the degradation was “necessary to accommodate important economic or social development” in the area. For these general permits, IDNR considered the statewide impact of certifying the

3 Id.
11 Id.
IEC Comments on 401 Certifications for Nationwide Permits
Christine Schwake, IDNR
December 10, 2020

IEC does not take issue with accounting for the statewide impact of certification for a general permit that is applicable statewide. However, the method of evaluating the economic need depends on a comparison of the costs of each alternative. IDNR compared the costs of: (a) denying certification entirely and (b) certifying, regardless of conditions. The evaluation gave no accounting of the costs of other alternatives, and it did not describe impracticality of the existing conditions that have been in effect for years. Absent a demonstration that the existing conditions are not practicable, economically efficient, and affordable, IDNR cannot impose conditions less stringent than the existing conditions, because doing so would allow degradation.

Because IDNR did not evaluate reasonable alternatives that are in effect today or provide justification for their future impracticality, it cannot conclude that it has selected the least degrading alternative. Because IDNR did not evaluate the costs of alternative conditions or demonstrate that the existing conditions are impractical, it cannot conclude that the degradation is necessary. IEC recommends that IDNR retain the existing conditions or make them more protective of Iowa’s waters, where doing so is practicable.

II. IDNR Has Removed Conditions to Meet Water Quality Standards Without Justification.

To ensure compliance with water quality standards, IDNR must impose conditions comparable to those that are in the existing certification of the NWPs. The proposed certification removes conditions regarding mitigation scheduling, construction of filter strips, and use of heavy equipment in the water.

a. IDNR Has Removed the Condition on Mitigation Scheduling Without Justification.

The existing certification for the NWPs requires mitigation practices to be scheduled prior to or concurrent with the discharge of dredged or fill material into waters of the United States. The proposed certification does not retain this condition. Removing the condition could significantly reduce compliance with Iowa’s narrative water quality standards (WQS).

13 IEC notes that the Corps used its existing permits as a baseline to evaluate compliance costs for its economic analysis; IDNR did not use its existing permit conditions. See “Regulatory Impact Analysis for the Proposed 2020 Nationwide Permits,” U.S. Army Corps of Engineers, July 30, 2020, at 23-24. Furthermore, requiring individual certification would not impose the same costs as requiring both an individual 404 permit and individual certification.
14 Id.
15 Cf. id. at Finding 3 (“All cost-effective and reasonable BMPs for nonpoint source pollution control are implemented”).
16 Cf. id. at Finding 4 (“Allowing degradation of water quality is necessary and accommodates important economic or social development from activities authorized by NWPs.”).
18 Iowa Dept. of Natural Resources, Draft Section 401 Water Quality Certification for the Nationwide Permits (2020).
19 See Iowa Admin. Code r. 567-61.3(2) (2020).
The scheduling approach is an integral part of wetland mitigation in the implementation guidance developed by IDNR and the Corps. IDNR worked with the Corps to generate a guidance document known as the ISMM, which provides best management practices (BMPs) for quantifying unavoidable stream impacts for permits under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. While the ISMM focuses on applications to permits requiring pre-construction notice, it provides key guidance on the implementation of the credit system identified in 33 C.F.R. Section 332.4(c)(6) of the Corps’ Mitigation Rule. IDNR and the Corps worked together to develop the guidance on mitigation practices. Section 332.3(f)(1) further encourages, when appropriate, the use of practicable determinations of how much compensatory mitigation should be required for the individual or general permit. The process described in the Mitigation Rule uses a credit-based system to determine the loss of aquatic functions at an impact or product site. If the mitigation rule is not properly followed in determining what mitigation procedures are necessary to reduce the loss of aquatic functions, this could result in direct violations of Iowa’s narrative water quality standards.

Iowa’s narrative water quality standards focus on preserving Iowa’s aquatic functions through describing conduct that would severely violate the purposes of the Clean Water Act and Iowa’s policy of protecting and enhancing the quality of all waters of the state. Failure to schedule mitigation practices, such as efforts to properly store dredged material or use vegetation in restoration of affected areas, could lead to floating debris, sludge deposits, discharge of materials that change the color or odor of the water way, and allow contamination of materials that are acutely toxic to human, animal, or plant life. Further failure in proper planning to mitigate an increase in turbidity could result in turbidity levels greater than the 25 Nephelometric turbidity unit (NTU) water quality standard. IDNR should retain the condition on mitigation scheduling or provide adequate justification for its removal.


The certification for the existing NWPs requires:

For newly constructed channels through areas that are unvegetated, native grass filter strips, or a riparian buffer with native trees or shrubs a minimum of 35 feet wide from the top of the bank must be planted along both sides of the new channel. A survival rate of 80 percent of desirable species shall be achieved within three years of establishment of the buffer strip.

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21 Id at 1.
22 Id.
25 Id.
IEC Comments on 401 Certifications for Nationwide Permits
Christine Schwake, IDNR
December 10, 2020

The condition is not incorporated into the regional conditions proposed by the Rock Island District of the Corps (District). The proposed certification does not include the condition. Removing the condition could result in violations of Iowa’s narrative WQS.

Filter strips and riparian buffer zones improve water quality in streams and rivers, filter out pollutants, and regulate water temperature. Buffer strips serve to create healthier water in streams and provide opportunities for diverse microclimates and habitats. While each project has different site-specific considerations for determining the effectiveness of BMPs and what factors are key to mitigating impacts from the permitted activity, Iowa State University has noted in particular the benefits of the USDA Forest Service three-zone buffer that can extend at minimum 95 feet outward from the river or stream bank.

By requiring filter strips or riparian buffers, IDNR ensures that permit applicants will make plans to mitigate some of the discharges into the waters and decrease erosion after the permitted activity is completed. Newly constructed channels affected by the condition will be properly managed to begin with so as to prevent floating debris and increases in turbidity and will provide natural filter systems to reduce concentrations or combinations of substances that are acutely toxic to human health, animal, or plant life.

Riparian buffers have the potential to provide public and private economic benefits to local Iowans. A review of collected research done by American Rivers highlights the key economic benefits as increasing property value. For example, the study indicates a positive relationship between residential property values and proximity to riparian buffers. A more site-specific study done by Delaware Riverkeeper Network found that buffer strips and riparian buffers provide reductions in costs relating to nutrient retention, air quality and carbon storage. Additionally, the local economy can see benefits through increases in revenue from recreation and property values. IDNR should retain the filter strip and riparian buffer condition.

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30 See Iowa Dept. of Natural Resources, Draft Section 401 Water Quality Certification for the Nationwide Permits (2020).
33 Id.
34 Id.
35 Id.
38 Id.
c. **Removing the Condition Restricting the Use of Heavy Equipment in the Waterways Will Degrade Iowa’s Water Quality.**

The certification for the existing NWPs requires:

> Heavy equipment shall not be used or operated within the stream channel. If in-stream work is unavoidable, it shall be performed in such a manner as to minimize the duration of the disturbance, turbidity increases, substrate disturbance, bank disturbance, and disturbance to riparian vegetation. This condition does not further restrict otherwise authorized drainage ditch maintenance activities (Iowa Section 401 Water Quality Certification condition).\(^{39}\)

The condition is not incorporated into the District’s regional conditions, and the draft certification does not include this condition.\(^{40}\) Removing the restriction will violate policy regarding antidegradation as described in Section I. Additionally, removal of this requirement may result in turbidity increases above the numeric WQS.\(^{41}\)

The existing condition provides that the use of all equipment in a stream is only acceptable if the equipment is cleaned of all hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids or other construction-related, potentially hazardous substance before arriving on site.\(^{42}\) However, this condition does not address the potential increase in pollution by increasing the levels of river/stream bottom stirred up from using heavy equipment in the stream bed. IDNR could add a requirement to use BMPs such as sediment curtains, which provide additional protection for the surrounding water.\(^{43}\) IDNR should retain the condition restricting the use of heavy equipment in waterways.

III. **Condition 8 on Hydraulically Dredged Material Does Not Address Turbidity or the Native Mussel Species Likely to be Impacted.**

Proposed condition 8 of IDNR’s draft certification would require that “Hydraulically dredged material shall be managed to ensure the return water meets water quality standards found at 567 IAC 61.3(2).”\(^{44}\) The condition does not address protection of native mussel species likely to be impacted.

\(^{39}\) Iowa Admin. Code r. 567-61.2(9)(g) (2020).
\(^{40}\) See Iowa Dept. of Natural Resources, Draft Section 401 Water Quality Certification for the Nationwide Permits (2020).
\(^{41}\) Iowa Admin. Code r. 567-61.3(2)(f) (Oct 7, 2020).
\(^{42}\) Iowa Dept. of Natural Resources, Draft Section 401 Water Quality Certification for the Nationwide Permits (2020).
\(^{44}\) Iowa Dept. of Natural Resources, Draft Section 401 Water Quality Certification for the Nationwide Permits (2020) at 2.
Hydraulic dredging relies on pumping dredged materials away from the excavation site to another location where sifting and sorting occurs.\textsuperscript{45} Common methodology relies on a slurry mix that is sucked to a sorting area.\textsuperscript{46} According to U.S. Aqua and other dredging service providers, there are several types of dredging: suction dredging, cutter suction dredging, trailing suction hopper dredging, and others.\textsuperscript{47} These methods usually require placing a pipe on the bottom of the river or lake bed and then using suction to remove the sediment on the river bed.\textsuperscript{48}

While these methods are widely used, the mussel populations in Iowa, including those that are listed as threatened and endangered, are already vulnerable. According to the U.S. Fish & Wildlife Service, mussels in the Midwest are historically among the most populous, and more than half of the 78 species are classified as federally endangered, threatened or a state species of special concern: “No other group of animals in the Midwest is so gravely imperiled.”\textsuperscript{49} According to the Nature Conservancy, about 70\% of mussels in North America overall are extinct or imperiled while mammalian species and bird species are 16.5\% and 14.6\% extinct or imperiled, respectively.\textsuperscript{50} According to the Mollusk Conservation Organization in a report from 2002, Iowa had 55 species of freshwater mussels at the time of European settlement.\textsuperscript{51} Now Iowa only has about half of those species.\textsuperscript{52} The most recent online data provided by the U.S. Fish and Wildlife Service shows there are three still listed as endangered.\textsuperscript{53} However, an article recently published by Iowa Public Radio highlights that continued efforts to track mussel populations in Iowa has found smaller mussel populations than researchers hoped to find.\textsuperscript{54} Alarmingly, according to the data collected, sites that had registered in 2014 with the highest population density of mussels had zero mussels in 2018.\textsuperscript{55}

\begin{footnotesize}
\begin{enumerate}
\item[Dredge America, \textit{Dewatering Services}, (last accessed Dec. 04, 2020)]
https://dredgeamerica.com/services/dewatering/.
\item[\textit{Id.}]
\item[\textit{Id}; U.S. Aqua Services, \textit{The Basics of Mechanical and Hydraulic Dredging} (last accessed Dec. 4, 2020)]
\item[Dredge America, Dewatering Services, (last accessed Dec. 04, 2020)]
\item[Midwest Region Endangered Species, \textit{America’s Mussels: Silent Sentinels}, U.S. Fish & Wildlife Service (last accessed Dec. 4, 2020)]
\item[\textit{Id.}]
\item[\textit{Id.}]
\item[\textit{Id.}]
\end{enumerate}
\end{footnotesize}
Mussels provide key biological functions such as food for aquatic life and serve as natural filters that improve water quality. IEC applauds consideration of the impacts of hydraulic dredging, but the importance of mussels in Iowa and the potential threats to mussel species requires further protection. The condition must specify how hydraulic dredging will be managed so as to prevent harm to the numerous native mussels under threat.

IV. Conditions 3 Through 5 and Condition 7 Should Be Clarified.

IEC recognizes and appreciates the intent of conditions 3 through 5 and condition 7 of the draft certification to ensure compliance with the state’s water quality standards. However, the proposed conditions are vague to the point of not being meaningful to permittees. Each condition uses the phrase “shall be properly managed in such a manner that it cannot enter a water of the state and cause a violation of water quality standards.” It provides no indication what “properly managed” means for each condition, nor how it relates to the cited general water quality standards in the narrative form.

Condition 3 requires “all cleared vegetative materials shall be properly managed in such a manner that it cannot enter a water of the state and cause a violation of water quality standards.” There is no information on which WQS might be violated, how far removed the materials should be from the state’s water, or what is considered proper disposal of vegetative material.

Condition 4 applies the same language to construction debris. Condition 4 provides no clear guidance on whether debris generated by moving heavy equipment in and out of the stream bed meets the definition of construction debris. Iowa’s general water quality criteria provides that waters shall be free from floating debris, oil, grease, scum, and other floating materials as well as a turbidity limit of 25 NTUs. For the purposes of the certification, it is not clear whether construction is debris limited to those narrative standards or what constitutes properly managing construction debris so that those water quality standards are not violated.

Condition 5 addresses erosion management. Under the proposed certification, the condition would only indicate that erosion be managed in a way that sediment is not discharged to the water of the state in a manner that results in a violation of water quality standards. The condition then refers the permittee to the general water quality criteria. The most relevant water
quality standard is the turbidity requirement of 25 NTUs. IDNR could eliminate some confusion and merely restate the condition regarding turbidity in regards to protecting erosion and retain the previous conditions on vegetative buffers and filter strips as proper erosion management.

Finally, Condition 7 provides unclear guidance on the proper management of stockpiled dredged materials. The condition does not indicate whether a certain distance is required to ensure that the dredged materials do not enter the waters of the state due to normal weather conditions, nor is there any guidance on where the stockpiled dredged material is to be disposed of in compliance with Iowa’s narrative water quality standards. As an alternative, Minnesota 401 certification requires compliance with the state’s water quality standards, but also requires BMPs to be used. Iowa’s own certification of erosion management could use language like Minnesota’s to describe how dredged stockpiled materials must be managed to meet state water quality standards. Condition 7 could instead read: “stockpiled dredged materials shall be managed at such a distance from the waterway as to prevent sediment discharge to waters of the state in a manner that causes a violation of water quality standards.” In Minnesota’s guidance on BMPs, the state describes the practices to prevent soil erosion at project sites: “management of dredged material should take place at upland sites, with the material being spread out, seeded, mulched and stabilized in place.”

IEC Supports Conditions to Protect Outstanding Resources and Prevent Certifications in Case of Waiver.

The District has proposed regional conditions for the NWPs that are necessary to ensure protection of Iowa’s waters. IEC has no expectation for the District to change its proposed conditions. However, if the District does not impose these conditions for any reason, IDNR must impose them to ensure compliance with Iowa’s water quality standards.

a. Protection Is Necessary for Outstanding Resources and Special Wetlands

Iowa provides an additional degree of protection for Outstanding Iowa Waters and Outstanding Natural Resource Value waters. Iowa also has a variety of rare wetland types that could be difficult to replace. As a result, these high-value waters must be addressed through individual certification.

Reducing protections for bogs, fens, seeps and sedge meadows could have lasting consequences. “Fens are peat-forming wetlands that rely on groundwater input and require thousands of years to

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67 Iowa Dept. of Natural Resources, Draft Section 401 Water Quality Certification for the Nationwide Permits (2020).
68 Id.
69 Id.
70 Minn. R. 7001.1080 (2020).
72 Iowa Admin. Code r. 567-61.3(2)(c), (d) (2020).
develop and cannot easily be restored once destroyed.” Fens are a type of wetland that is fed by groundwater due to the water table existing at or near the ground surface. Fens usually exist on poorly aerated substrate and consist of plants that can exist in wet and reducing conditions. According to the Michigan State University, prairie fens are a globally rare wetland most common in the Midwest and Northeast United States.

In Iowa, one of the preserved fens is the Gray-Hart Preserve and it protects one of the state’s largest calcareous fens. According to the Nature Conservancy, fens are Iowa’s rarest type of wetland; they support thick peat soil accumulation and specialized calciphile plants such as grass-of-Parnassus and sterile sedge.

Fens, bogs, and other peatlands are significant carbon sinks as the formation of peatlands results in several feet of stored carbon material below the surface level. Most of the organic material does not degrade, which traps the carbon. As climate change affects farmers, outdoor recreationalists, and the overall population, protection of these areas is key to reducing impacts as well as preserving biodiversity in various ecological systems. IDNR should ensure that either the Corps or IDNR imposes conditions to protect such waters and wetlands.

b. Waivers of NWP Limits Allow Additional Degradation

The existing certification of the NWPs requires individual 401 certification when the Corps issues a waiver to exceed the limits of the NWP. Removal of this requirement would adversely impact water quality by allowing additional degradation without review by IDNR.

Waivers issued by the Corps allowing permittees to exceed pollution limits could result in violations of Iowa’s 401 certification and violations of the state’s water quality standards. The state certification that the activities will not violate water quality standards is entirely dependent upon the requirements in the approved NWPs. Waivers of those requirements could substantially affect the impact of the project and the effects on the state’s water quality. The state cannot

74 Id.
75 Id.
78 Id.
80 Id.
81 Id.
IEC Comments on 401 Certifications for Nationwide Permits
Christine Schwake, IDNR
December 10, 2020

certify that a permit with conditions it has not seen will comply with water quality standards. If the District does not include the condition for some reason, IDNR must do so.

VI. Conclusion

For the reasons articulated above, IDNR must strengthen the conditions in its draft certification to ensure compliance with the state’s water quality standards. The draft certification would allow unnecessary degradation, inappropriately removes protections from the existing certification, does not protect mussel species that are important for a healthy aquatic ecosystem, and contains conditions that are unreasonably vague. The IDNR must address these problems before issuing the certification to avoid violation of the Clean Water Act and its implementing regulations.

Thank you for the opportunity to provide these comments and for your consideration of them. We would be happy to address any questions about the comments and requested changes. We look forward to hearing from you soon.

Sincerely,

/s/ Michael R. Schmidt       /s/ Katie Luzier
Michael R. Schmidt
Staff Attorney
Iowa Environmental Council

Katie Luzier
Legal Intern
Iowa Environmental Council

cc: Carrie Schoenebaum, IDNR Counsel