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Attention Docket ID No. OW-2002-0050

To whom it may concern:

Let me thank you for this opportunity to comment on this pending federal rulemaking to clarify the effects of the U.S. Supreme Court decision in *Solid Waste Association of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) (SWANCC).

OVERVIEW

The Indiana Department of Environmental Management (IDEM) supports a rulemaking that would clarify the definition of Waters of the U.S. to the extent that it does not narrow the breadth of federal jurisdiction beyond the holding of the U.S. Supreme Court's decision in SWANCC. Any revision to the current rules should interpret the SWANCC decision as narrowly as possible.

Indiana understands that some are claiming that the Supreme Court decision in SWANCC was a victory for "state's rights." Although we encourage the federal government to defer to the sovereignty of states whenever the issues are truly intrastate, we hope to illustrate with this letter that headwater streams and so called "isolated" wetlands are national not local issues. In this instance, we encourage the federal government to be proactive, recognizing the movement of water, wildlife, goods and people between states and the critical importance of the nation's water resources. The federal government, through the Clean Water Act and the Farm Bill, has been working in concert with states like Indiana to reverse the loss of Indiana's and the nation's wetland resources and their corresponding benefits. That progress must continue.

In Indiana, our longstanding authority to regulate "isolated" waters is currently being litigated. Legislation has been introduced in our General Assembly that limit the protection provided to wetlands and other aquatic resources under state law. Similar challenges to state authorities and state efforts are occurring across the country. Absent the exercise of federal authority, a patchwork quilt of uneven regulation will threaten overall water quality. We strongly

encourage the federal government to remain in partnership with the states by asserting appropriate federal jurisdiction instead of shifting the burden of protection to the states.

Wetland loss is not just a local problem. Wetlands and headwater streams are particularly valuable for their ability to filter pollutants such as nitrate from water. Nitrate laden runoff is a growing concern nationally and clearly moves across state lines. Even if we manage to fill the gaps that would be created by a redefinition of 'Waters of the U.S.' in Indiana, nothing guarantees that all of our nearby states will also fill these gaps. Neither water nor wildlife respect state borders. The highest level of federal protection is important even if our state can fill the gaps within our own borders. One of the fundamental purposes of the CWA was to create a level playing field among the states and eliminate incentives to lessen environmental protection; the federal agencies should not undercut this important objective on their own initiative.

ANPRM QUESTIONS

In the ANPRM, you asked that we specifically address two main questions. These questions center on the role we wish the federal government to play in the regulation of surface waters.

Whether, and, if so, under what circumstances, the factors listed in 33 CFR § 328.3(a)(3)(i)-(iii) (i.e., use of the water by interstate or foreign travelers for recreational or other purposes, the presence of fish or shellfish that could be taken and sold in interstate commerce, the use of the water for industrial purposes by industries in interstate commerce) or any other factors provide a basis for determining CWA jurisdiction over isolated, intrastate, non-navigable waters?

It is our opinion that the U.S. Supreme Court did not go so far as to determine that the factors listed in 33 CFR 328.3(a)(3) could not be used to establish federal jurisdiction; therefore these are still valid bases for determining jurisdiction. We support as broad a definition of Waters of the U.S. as is possible; therefore, we support continued assertion of jurisdiction over waters utilizing the factors listed in 33 CFR 328.3(a)(3)(i)-(iii). It is our opinion that cases such as *U.S. v. Byrd*, 609 F.2d 1204 (7th Cir. 1979) (holding that Lake Wawasee and its surrounding fringe wetlands are waters of the U.S. by virtue of its use by interstate travelers and the role such wetlands play in protecting the lake's water quality) are still good law and should continue to be followed.

Whether the regulations should define "isolated waters," and if so, what factors should be considered in determining whether a water is or is not isolated for jurisdictional purposes?

Again, we support as broad a definition of Waters of the U.S. as possible. The majority of courts that have interpreted SWANCC have concluded that its limited holding did not represent a significant change in the law. Most courts have found that a body of water need not have a direct connection to navigable water to be subject to federal jurisdiction, but may be linked through other connections two or three times removed from the navigable water. Similarly, courts have held it to be immaterial that the water flowed through man-made conveyances or only flowed intermittently to a navigable water or its tributaries. See, e.g., *United States v. Krilich*, 303 F.3d 784 (7th Cir. 2002); *Headwaters, Inc. v. Talent Irrigation District*, 243 F.3d 526 (9th Cir. 2001); *United States v. Lamplight Equestrian Center, Inc.*, 2002 WL 360652 (N.D. Ill. 2002); *United States v. Hummel*, 2003 U.S. Dist. LEXIS 6656 (N.D. Ill. 2002); *United States v. Rueth*

Development Co., 189 F.2d 874 (N.D. Ind. 2002); and *United States v. Buday*, 138 F.Supp.2d 1282 (D. Mont. 2001).

Indiana suggests that instead of defining "isolated waters," which we think is almost always a fictional concept, the federal government should instead provide clarification or examples, consistent with the majority line of cases of waters interpreting SWANCC, of factors that support a finding of jurisdiction. These would include hydrologic connections via sheet flow from storm events, groundwater, or surface flow (regardless of how direct or intermittent); the location of the water body in a floodplain; and ecological connections such as breeding habitat for aquatic species in jurisdictional waters or species that are sold in interstate commerce.

A number of possible definitions of 'isolated waters' have been 'floated' by either the Corps or the regulated community. These include suggestions to consider the following as isolated waters and eliminate federal jurisdiction over them: man-made conveyances; ditches; intermittent streams; ephemeral streams; headwater streams; waters that are not within some specified geographical distance of or immediately adjacent to a navigable-in-fact water; and up-stream limits, such as stretches above the mean high water mark. Indiana does not believe that these suggestions are on the right track. As noted, an appropriate response to the Supreme Court ruling would be to narrowly rule out those situations specifically and solely attributable to the migratory bird rule and revert to status quo for the rest.

INFORMATION ON VULNERABLE WATERS IN INDIANA

Depending on how narrowly or broadly the rule is revised, a substantial portion of Indiana's wetlands, lakes and headwater streams could be removed from federal jurisdiction. A number of ways for providing bright lines to establish the scope of the federal government's jurisdiction have been suggested by various parties post-SWANCC. We have taken a few of these suggested options and, using GIS analysis techniques, estimated the number and area of vulnerable wetlands.

These estimates rely on available data, the National Wetland Inventory (NWI), and the National Hydrography Dataset (NHD). These datasets are not perfect; they have errors. Scale is also an important factor. Mapping streams at 1:100,000 scale misses many streams that may be mapped at 1:24,000. In order to make GIS based estimates, especially before the draft rule is written, one needs to make several assumptions. Scenario 2 and Scenario 3 estimates assume so called "lost" streams, those streams that end without discharging into another surface body of water, are still "connected." These streams could be lost to subsurface tiles, karst subterranean features, etc. This assumption allows us to assume that all (except intermittent in Scenario 2) mapped streams are tributaries of navigable or interstate waters, even if they are piped for some distance. Streams that are not mapped at this scale, are not assumed to be tributaries. At 1:100,000 scale this could include many miles of ephemeral, intermittent or even some perenial streams of small size or obscured by tree cover. Scenario 1 assumes that isolated reaches are not tributaries. National Wetland Inventory polygons that share a common boundary were assumed to be parts of one discrete water. Dissolving these contiguous areas produced discrete waters so that each discrete water is completely surrounded by upland. The two main datasets used in this analysis depict very different data, at different scales, and have different positional accuracy. To compensate for the uncertainty of using data with different positional accuracy we assumed that features that were within the positional accuracy of the least accurate dataset used in the selection process "touched." These areas were still considered connected discrete waters. The positional

accuracy of 1:100,000 scale data (NHD, Reach3) was assumed to be 50.8 meters, while the positional accuracy of the 1:24,000 scale data (NWI) was assumed to be 12.2 meters. Note that the positional accuracy of 50.8 meters is very close to the same distance as the 200-foot adjacency scenario explaining the very similar results produced by these two scenarios. Assumed positional accuracies are based on the National Mapping Program Standards. For the purpose of these estimates "adjacent" is assumed to mean some horizontal linear distance. We apologize for mixing units in these adjacency scenarios;scenario 1 was completed shortly after the SWANCC ruling, before the 200-foot adjacency figure began to emerge as a possible adjacency threshold.

Scenario 1 was completed and published shortly after the SWANCC decision (Robb 2002[i]). This scenario assumes that all connected streams mapped by USGS at 1:100,000 scale are tributary to navigable waters or are navigable themselves except reaches denoted as "headwater lake," "lake shoreline," "isolated stream," or "apparent limit reach" by the Reach-3 index[ii] as these reaches could be isolated or "lost" themselves. **Depending on how "adjacent" is defined between 9% and 31% of Indiana's waters by area, and between 32% and 85% by number would no longer be federally jurisdictional under this tributary scenario.**

Table 1. Scenario 1 tributary means *connected* streams mapped by USGS at 1:100,000.				
Adjacency class	Area in hectares	Percent of total waters by hectare	Number of waters	Percent of total waters by number
No direct connection to other waters	127,574	31	168,740	85
More than 50 m to connected waters	120,212	29	163,329	83
More than 100 m to connected waters	112,580	28	156,495	79
More than 500 m to connected waters	70,975	17	109,717	55
More than 1,000 m to connected waters	36,505	9	62,392	32
Total waters	407,505	100	197,851	100

Scenario 2 assumes that tributary means all perennial streams mapped by USGS at 1:100,000 scale. The stream dataset used in this estimate, and in scenario 3 was the NHD, which is essentially the same geographically as the dataset used in Scenario 1, but with different annotation. Streams denoted as "intermittent" were excluded[1]; scenario 1 included these streams. So called "lost" streams were included; scenario 1 excluded these streams. **Depending on how "adjacent" is defined between 27% and 35% of Indiana's waters by area, and between 73% and 89% by number would no longer be federally jurisdictional under this definition of tributary.**

Table 2. Scenario 2 tributary means perennial streams mapped by USGS at 1:100,000.				
Adjacency class	Area in hectares	Percent of total waters by hectare	Number of waters	Percent of total waters by number

[1] The NHD does not include an "ephemeral" classification. Ephemeral streams are grouped within the intermittent classification if they are mapped at all.

No direct connection to other waters	143,576	35	175,640	89
More than 60.96 m (200 feet) to connected waters	141,957	35	174,354	88
More than 304.8 m (1000feet) to connected waters	111,020	27	143,506	73
Total waters	407,500[2]	100	197,851	100

Scenario 3 assumes that all streams mapped by USGS at 1:100,000 scale, including intermittent and lost streams, are tributary to navigable waters or are navigable themselves. **Depending on how "adjacent" is defined between 25% and 33% of Indiana's waters by area, and between 65% and 86% by number would no longer be federally jurisdictional under this definition of tributary.**

Table 3. Scenario 3 tributary means all streams mapped by USGS at 1:100,000.				
Adjacency class	Area in hectares	Percent of total waters by hectare	Number of waters	Percent of total waters by number
No direct connection to other waters	132,539	33	170,574	86
More than 60.96 m (200 feet) to connected waters	130,672	32	168,925	85
More than 304.8 m (1000 feet) to connected waters	103,798	25	128,910	65
Total waters	407,500	100	197,851	100

HEADWATER STREAMS AND ISOLATED WETLANDS ARE A NATIONAL ISSUE

- **Nitrogen**
- **Waterfowl Populations**
- **Flooding**
- **Headwater Stream Functions**

A federal policy that, as some have suggested, leaves the regulation of isolated wetlands to the states ignores the national consequences of wetland loss. Wetlands and headwater streams perform many valuable functions. Some of these functions are admittedly more valuable locally than nationally, but there are a number of functions which are just as valuable nationally, or even more valuable nationally than locally. Examples of these functions of national value include nitrogen removal, carbon sequestration, migratory bird habitat, threatened and endangered species habitat, floodwater attenuation, etc.

Nitrate-nitrogen exported from states in the Mississippi Valley contributes to hypoxia in the Gulf of Mexico (Goolsby et al. 1999). The State of Indiana has not regulated nitrate discharges in the past and probably may not regulate this nutrient in the future because Phosphorus (P), not Nitrogen (N), is perceived as being the limiting or at least an easier to regulate co-limiting nutrient in Indiana's waters. Redefinition of Waters of the U.S. could result in increased vulnerability of isolated wetlands and headwater streams to human encroachment.

[2] The 4 ha reduction between the totals for scenario 2 and scenario 1 is do to minor topological changes caused by converting from ArcView shapefile format to ArcInfo coverage format, and the subsequent cleaning of the polygons.

Mitsch et al. (2001) concludes that between 210,000 ha and 530,000 ha of wetland should be restored or created in the Mississippi Basin to reduce hypoxia in the Gulf of Mexico. It stands to reason that protecting the N removing resources we currently have is just as important. Assuming a wetland N removal rate of 100-200 kg N ha^{-1} yr^{-1} (Mitsch et al. 2001), between 3.7 and 14.4 thousand metric tons per year of N removal capacity is vulnerable just in Indiana, depending on how Waters of the U.S. are defined (Table 4).

Table 4. N removal capacity vulnerable under each scenario assuming N removal rates of 100-200 kg N ha^{-1} yr^{-1}

Adjacency class	Area in hectares	N removal (low) (metric ton x 1000)	N removal (high) (metric ton x 1000)
Scenario 1			
No direct connection to other waters	127,574	12.8	25.5
More than 50 m to connected waters	120,212	12.0	24.0
More than 100 m to connected waters	112,580	11.3	22.5
More than 500 m to connected waters	70,975	7.1	14.2
More than 1,000 m to connected waters	36,505	3.7	7.3
Scenario 2			
No direct connection to other waters	143,576	14.4	28.7
More than 60.96 m (200 feet) to connected waters	141,957	14.2	28.4
More than 304.8 m (1000 feet) to connected waters	111,020	11.1	22.2
Scenario 3			
No direct connection to other waters	132,539	13.3	26.5
More than 60.96 m (200 feet) to connected waters	130,672	13.1	26.1
More than 304.8 m (1000 feet) to connected waters	103,798	10.4	20.8

Nitrate-nitrogen, because of its negative charge, is repulsed by the net negative charge of soils. This makes nitrate highly mobile, both in surface waters and in groundwater. The loss of wetlands, even those that do not have a connection to flowing streams, means that the nitrate that was once removed by these systems will continue to flow overland, or in the groundwater into streams and lakes and ultimately into the Gulf of Mexico or the Great Lakes. Nitrate contamination of groundwater is, in itself, problematic as concentrations greater than 10 mg per L is a causal factor in blue baby syndrome.

Increased inputs of nitrogen cause eutrophication of estuaries and coastal zones. In freshwater systems, which are phosphorus limited, eutrophication is generally caused by increased phosphorus inputs (Cooke et al. 1993[iii]). As a water undergoes eutrophication primary production increases (e.g., algae blooms), but eventually the producers die. The decomposition of the dead algae increases respiration (Cooke et al. 1993). This increase in respiration consumes the

dissolved oxygen in the water body leading to hypoxia. This reduction in oxygen is often the cause of summer fish kills in freshwater lakes and rivers. Hypoxia and anoxia (near total lack of dissolved oxygen) have stressed both shellfish and finfish fisheries in the Chesapeake Bay (Officer et al. 1984[iv]). There is fear that the Gulf of Mexico fishery could suffer the same fate. Clearly Gulf Hypoxia is a national problem, with both national and international economic and ecological consequences. The source of this problem is nitrate-nitrogen coming from multiple states within the Mississippi Basin. The historic and continued net loss of wetland denitrification sites is cited as one of the factors contributing to Gulf Hypoxia (Hey 2002[v]), further losses caused by narrowing the definition of Waters of the U.S. would exacerbate hypoxia in the Gulf of Mexico.

Nitrate-nitrogen is just one example of the many national functions that would be lost with a narrowing of the definition of Waters of the US. Wetlands are an important variable in global climate change. Wetlands, especially peatlands, accumulate organic carbon in their soils, thus providing a net decrease in atmospheric CO_2. When these organic substrate wetlands are drained not only is the carbon sink effect lost, but the organic carbon substrate is oxidized thus contributing CO_2 to the atmosphere.

Waterfowl populations are linked to habitat within not just one state, but the entire flyway. The loss of wetlands will likely result in a decline in waterfowl populations due to reduction of breeding and resting areas. Losses of wetlands in Wisconsin and Michigan effect waterfowl populations in Indiana. Without comprehensive federal regulation, what protection does Indiana have if other states in the same flyway do not fill in the gaps left by a narrowing of the definition?

Flooding is another major issue where the consequences of wetland fills are distant from the losses themselves. Wetlands suppress flooding by storing water and releasing it slowly. One might be tempted to believe that so called "isolated" wetlands have no flood suppression value since they do not discharge to streams. Consider what happens to the water that an "isolated" wetland normally sequesters when it rains. What happens to this water if the wetland is filled or drained? The water has to go somewhere. In fact the purpose of the filling or draining is often to get the water off the property as quickly as possible through ditches or subsurface tiles. If it is not directed into a drain of some sort it must continue on an overland route until it finds another wetland or stream. The result is more water delivered more quickly to nearby streams thus intensifying flooding.

Headwater streams, like wetlands, provide many important **functions including water quality improvement, sediment control, nutrient and chemical control, flood control, wildlife habitat corridors, refugia for species recruitment, water and food supply, aesthetic and recreational enjoyment, etc**. Although we concentrated on wetlands in the discussion of nitrate-nitrogen above, headwater streams are also important in nitrogen removal, far more important that larger lower gradient streams (Peterson et al. 2001[vi]). Headwater streams (drainage areas of less than 20 square miles of watershed) make up as much as 64% of the measured river miles in Indiana. The Ohio EPA estimates that as many as 80% of Ohio stream miles are headwater streams. Headwater streams are critical areas for nutrient dynamics and provide direct habitat for aquatic macroinvertebrates, fish, and amphibians. They support important components of biodiversity in watersheds and reproductive cover for pioneer and other fish species that inhabit the larger downstream receiving waters. Because of their low profile, and in some cases relative isolation, headwater streams are not as well studied and their linkages to downstream systems not well understood. However, we do know that there is an intimate and very important link of

headwater water quality and biodiversity with downstream receiving waters. Also, because of their relative isolation headwaters tend to be the places where rare and endangered species might be found. Headwater stream, with their typical cool clear groundwater inputs, typically serve as biologically diverse refuges for animals that have been lost from our larger streams due to society's adverse activities over time. The health of larger streams and rivers as well as lakes depends upon an intact headwater stream network. If there is poor water quality at the source of a larger stream or lake, it is likely that there will be poor water quality within the larger stream or lake. The protection of headwater stream is one of the most important and critical concerns of maintaining water quality in our State. A narrowing of the definition of Waters of the U.S. such that some or all headwater streams are removed from jurisdiction would have many adverse effects on all of Indiana's waters and on the waters that leave Indiana.

OTHER STATE OR FEDERAL PROGRAMS ARE NOT SUFFICIENT TO PROTECT AQUATIC RESOURCES

The ANPRM suggested that there are a number of other state or federal programs that could still be utilized to protect wetlands and other waters that the federal government is considering eliminating from the definition of waters of the U.S. The agencies requested information on the availability and effectiveness of these other programs to protect aquatic resources.

IDEM has tried, and is still trying, to ascertain the effectiveness of other federal programs for protecting waters that would not fall within the traditionally recognized interpretation of navigable waters. Our efforts have primarily focused on the Farm Bill. The Farm Bill and NRCS's efforts to implement its provisions are an important component to the nation's efforts to preserve and protect wetlands and their functions. The Farm Bill provides very different protection to wetlands and aquatic resources than the CWA, and its provisions are subject to change. The Farm Bill programs are not and should not be intended to suffice as the only wetland conservation tool for affected wetlands on agricultural land. The Farm Bill wetland conservation efforts are voluntary and not a regulatory program. NRCS has only a limited resource to monitor compliance and oversight for its voluntary participants. The Farm Bill programs address only wetlands and not ephemeral or intermittent streams and address only cropland and not activities on other parts of a farm. We believe it is the responsibility of the federal government to make a comprehensive assessment of the Farm Bill's effectiveness at protecting wetlands and other aquatic resources, both on a short-term and a long-term basis. We urge that an effort be made in that regard <u>before</u> the Corps and EPA propose any changes in the definition of waters of the U.S that depends heavily on Farm Bill wetland program implementation

It will be difficult for states to fill gaps left by any narrowing of the definition of the Waters of the US. This is due to a number of factors, including, resource constraints faced by the states, and the conflict between private property rights and water resource protection.

Like many other states, Indiana historically relied on the provisions of section 401 of the Clean Water Act as the primary mechanism for protecting its wetlands from filling. Subsequent to the SWANCC decision, the Louisville district of the USACE adopted a broad interpretation of SWANCC, in some cases refusing to claim jurisdiction over streams and ditches that flow into navigable waters if either the ditches were man-made or if that stretch of stream were above the mean high water mark. The Detroit District, on the other hand, seems to be following

interpretation being adopted by the majority of courts who have interpreted SWANCC and concluded that its limited holding did not represent a significant change in the law. Because the Louisville District has jurisdiction over approximately two-thirds of Indiana's surface area, our 401 authority has been greatly undercut.

IDEM is currently requiring persons seeking to discharge pollutants (dredged or fill material) into waters not regulated by the USACE under section 404 of the Clean Water Act to obtain an NPDES permit. A developer filed a complaint for declaratory action in the local trial court in 2000. Among other things, the complainant sought a declaration that IDEM's application of its NPDES rules in this manner was illegal under both state and federal law and that a taking had occurred. Although the complainant prevailed in the trial court, the court subsequently entered a stay of its order pending appeal. The case is still pending in the Indiana Supreme Court. One of the broader issues of concern raised by the complainant in this case is the extent to which the CWA and federal regulations allow states to adopt NPDES permitting programs that are broader in scope than required under federal law. Specifically, the complainant and amici argued that 33 USC § 1342(b) and 40 CFR § 123.2(i) only allow states to adopt NPDES requirements for discharges into 'navigable waters,'. Therefore, states cannot adopt permit provisions broader than what would otherwise be required under federal law; i.e., a state NPDES program cannot regulate discharges into waters other than 'navigable waters.' This argument has implications beyond the context of filling 'isolated wetlands.' Intermittent and ephemeral streams constitute approximately 23% of the nation's stream miles[vii]. Indiana issues NPDES permits to wastewater treatment plants on numerous streams that have a Q7, 10 flow of zero. Depending on how one defined intermittent or ephemeral or just where the cutoff on jurisdiction over tributaries would fall out, states could find themselves in the position of not being able to issue NPDES permits to dischargers to such streams, despite having a broader definition of waters of the state (Table 5).

While Indiana does not agree with the interpretation advocated by the complainant and believes that the proper interpretation of these provisions is simply that the federal government may not be able to enforce permit provisions broader in scope than required under the federal law, the fact is that a significant amount of resources is being spent litigating this issue. Just as problematic as the investment of a huge amount of state resources in defending its authority to regulate is the amount of uncertainty and confusion that is being generated among affected persons.

From another perspective, many states have legislation that prohibits the state regulatory agency from adopting and enforcing requirements more stringent that the overarching federal law. For these states it will be impossible to provide protection to water resources no longer subject to regulation under the CWA. Three bills have been introduced into the Indiana General Assembly just this session containing some kind of 'no-more-stringent-than' mandate; IDEM is still uncertain as to whether these bills will pass yet this session. Similarly, two bills have been introduced that would narrow the state definition of 'waters' of the state. Obviously, if any of these bills pass, IDEM's jurisdiction will be greatly narrowed and we will have to reanalyze our ability to protect the state's aquatic resources.

Similarly, any state that adopted or incorporated the federal definition of waters of the U.S. as its corresponding waters of the state definition will be unable, without further changes, to protect waters no longer considered waters of the U.S. Although, theoretically, states can pass legislation to protect any waters no longer subject to federal jurisdiction under the CWA, enactment of such legislation will face an uphill battle. Additionally, even for states that have their

own definitions of waters of the state, the federal definition will serve as precedent in many cases involving interpretation of the state definition.

OTHER ISSUES

USEPA has made it clear to states that we must protect our water quality through the development of water quality standards, total maximum daily loads, etc. They have set goals of increasing the number and acreage of wetlands. Many of these requirements are meant to reduce the degradation of one state's waters by another state with lax regulations. Given the national need to regulate wetlands will the federal government compensate the states for filling in the regulatory gaps left by a narrowing of the definition of Waters of the U.S.? States are currently being hit with overwhelming budgetary restraints. Even for those states wishing to take a more proactive role in protecting their resources, now is not the time to shift the financial and administrative burden of protecting these resources to the states.

A final issue that has not been a major issue of concern for most states to date is the takings issue. Most takings claims in wetlands permitting decisions have been brought against the federal government, not the state government. However, if the federal government decides to exempt a number of waters from federal jurisdiction and leave their protection to the states, then the states will likely be faced with more takings claims. In light of the current fiscal crisis facing most states, the possibility of takings claims will be a disincentive to active environmental protection. Similarly, a number of states have property rights statutes that apply a different, more expansive, interpretation of property rights than what is applicable under federal case law. The effect of these statutes will also have to be factored in. Takings claims may limit the ability of states to fill in the gaps left by a narrowing of the definition of Waters of the U.S.

A NARROWING OF THE DEFINITION OF WATERS OF THE U.S. WILL ADVERSELY AFFECT INDIANA'S WATER QUALITY PROGRAMS

Section 401 Water Quality Certification. A narrowing of the definition of Waters of the U.S. limits an important mechanism for the state to regulate dredge and fill activities – the State Water Quality Certification (section 401). Although we are currently requiring NPDES permits for discharges to waters that the USACE claims are no longer jurisdictional, our authority to do so is currently being litigated as discussed above.

National Pollutant Discharge Elimination System (NPDES). Although Indiana has its own definition of 'waters' of the state that is used for purposes of implementing its state NPDES program and IDEM is currently requiring NPDES permits for discharges to all waters of the state including those that are no longer subject to federal jurisdiction, we are in litigation over what constitutes a "water of the state" and whether the NPDES permit program can be used to regulate waters that are not subject to federal jurisdiction. Therefore, any narrowing of the definition of Waters of the U.S. could potentially have a major impact in Indiana.

Indiana recently inventoried its NPDES permitted outfalls using navigation grade Global Positioning Systems (GPS). This data was used to estimate the number of NPDES outfalls in different waters evaluated under scenarios 2 and 3 above. These estimates assume that outfalls within 200 meters of a perennial or intermittent stream discharge to that stream. When an outfall

occurs within 200 meters of both an intermittent and a perennial stream, it was assumed to discharge to the perennial stream. Only outfalls that were further than 200 meters from a mapped stream were further classified under scenarios 2 and 3 (Table 5).

Table 5. Number of NPDES permitted outfalls in waters left vulnerable by various possible definitions of Waters of the US	
Outfalls to:	No. of NPDES Outfalls
Perennial stream	1199
Intermittent stream	102
Scenario 2	
Wetland or other water directly connected to a perennial stream	37
Wetland or other water within 60.96 m (200 feet) of a perennial stream	37
Wetland or other water within 304.8 m (1000 feet) of a perennial stream	66
Scenario 3	
Wetland or other water directly connected to a perennial or intermittent stream	38
Wetland or other water within 60.96 m (200 feet) of a perennial or intermittent stream	38
Wetland or other water within 304.8 m (1000 feet) of a perennial or intermittent stream	69
Total outfalls	4037

Drinking water. Rules that more narrowly define Waters of the U.S. could affect Indiana's drinking water program. Source water protection is essential to providing safe drinking water to Indiana citizens. Drinking water intakes are located in rivers, streams, lakes and reservoirs throughout Indiana. The activities that take place on both the land and water above these intakes can cause reductions in both the quantity and quality of water supplying the intakes. A narrow definition of Waters of the U.S. that results in less protection for wetlands and headwater streams could impede source water protection efforts which could drive up treatment costs and/or result in a reduction of drinking water quality.

Total Maximum Daily Loads (TMDL). Removing intermittent and ephemeral streams and adjacent wetlands from federal jurisdiction would create problems for the TMDL program both directly and indirectly. Direct concerns include the actual discharge of pollutants into waters that are no longer regulated under federal law and potentially under state law. The narrowing of jurisdiction would encourage the discharge of pollutants into these waterbodies creating impairments downstream. Indirect effects are those effects on water quality caused by the removal of important pollutant sinks, and the mobilization of pollutants caused by dredging and draining of wetlands and headwater streams. The main concern from a TMDL prospective is our ability to regulate the pollutant discharge. A narrowing of federal and state jurisdiction could potentially mean that more pollution will have to be dealt with through non-regulatory, non-point source programs. It also will mean that we will have to tighten regulation of those that discharge to waters that remain jurisdictional to offset the pollution entering the hydrologic network at unregulated locations.

Adoption of Water Quality Standards

It is not clear what impact a narrowing of the definition of Waters of the U.S. would have on implementation of section 303 of the CWA and adoption of the water quality standards in Indiana. However, at the least, it appears that such a change would generate a huge amount of confusion and likely lead to future litigation.

CONCLUSION

Indiana encourages the federal government to retain as broad as a definition of Waters of the United States as possible to be protective of the country's water resources. In addition, we request that waters remain subject to federal jurisdiction if any connection to interstate commerce may be present or another basis for asserting federal jurisdiction may be found.

The Environmental Council of States, the organization representing the states' environmental agencies across the country, recently adopted the enclosed resolution. We urge U.S. EPA to take note of the states' strong interest in broad federal jurisdiction of these waters and to act accordingly.

Thank you again for the opportunity to comment. We hope we can continue to work with our federal partners to stop the loss of Indiana's wetlands and continue to improve Indiana's water quality, and the quality of water that leaves Indiana. If you have any questions or wish to discuss these comments in more detail, please feel free to contact James Robb at jrobb@dem.state.in.us or 317-233-8802.

Sincerely,

Lori F. Kaplan
Commissioner

cc. Donna Downing, USEPA-OWOW (4502T)
Ted Rugiel, USACE CECW-OR

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[i] Robb, James. 2002. Estimating Indiana's isolated waters through geographic information systems. National Wetlands Newsletter 24(4): 9—12.
[ii] U.S. EPA Reach File Version 3.0 Alpha release (RF3-Alpha) Technical Reference.
[iii] Cooke, G. D., E. B. Welch, S. A. Peterson, and P. R. Newroth. 1993. Restoration and Management of Lakes and Reservoirs. 2nd Ed. Lewis Publishers, Boca Raton.
[iv] Officer, C. B., R. B. Biggs, J. L. Taft, L. E. Cronin, M. A. Tyler, and W. R. Boynton. 1984. Chesapeake Bay anoxia: origin, development, and significance. Science 233: 22—27.
[v] Hey, D. L. 2002. Nitrogen farming: harvesting a different crop. Restoration Ecology 10(1): 1—10.

[vi] Peterson, B. J., W. M. Wollheim, P. J. Molholland, J. R. Webster, J. L. Meyer, J. L. Tank, E. Marti, W. B. Bowden, H. M. Valett, A. E. Hershey, W. H. McDowell, W. K. Dodds, S. K. Hamilton, S. Gregory and D. D. Morrall. 2001. Control of nitrogen export from watersheds by headwater streams. Science 292(2): 86—90.
[vii] National Water Quality Inventory, 1994 Report to Congress. Appendix A, Table A-1.