

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
)
WATER QUALITY STANDARDS AND)
EFFLUENT LIMITATIONS FOR THE) R08-09A
CHICAGO AREA WATERWAYS SYSTEM) (Rulemaking- Water)
(CAWS) AND THE LOWER DES PLAINES)
RIVER: PROPOSED AMENDMENTS TO)
35 Ill. Adm. Code Parts 301, 302, 303 and 304)
(Recreational Use Designations))

NOTICE OF FILING

To:

John Therriault, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601

Marie Tipsord, Hearing Officer
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St, Suite 11-500
Chicago, IL 60601

Persons included on the attached
SERVICE LIST

PLEASE TAKE NOTICE that the Environmental Law and Policy Center, Natural Resources Defense Council, Openlands, Sierra Club-Illinois Chapter, Friends of the Chicago River, Prairie Rivers Network, Southeast Environmental Task Force and Alliance for the Great Lakes have today filed **Comments on the First Notice of Proposed Rules Establishing Recreational Use Designations for the Chicago Area Waterway System and the Lower Des Plaines River** in R2008-009A, a copy of which is herewith served upon you.

Respectfully Submitted,



Jessica Dexter, Staff Attorney
Environmental Law and Policy Center
35 East Wacker Drive, Suite 1600
Chicago, IL 60601; 312-795-3747

DATED: November 30, 2010

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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WATER QUALITY STANDARDS AND)
EFFLUENT LIMITATIONS FOR THE) R08-09A
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**COMMENTS OF ENVIRONMENTAL GROUPS ON THE FIRST NOTICE OF
PROPOSED RULES ESTABLISHING RECREATIONAL USE DESIGNATIONS FOR
THE CHICAGO AREA WATERWAY SYSTEM AND THE
LOWER DES PLAINES RIVER**

The Environmental Law & Policy Center, Natural Resources Defense Council, Openlands, Sierra Club-Illinois Chapter, Friends of the Chicago River, Prairie Rivers Network, Southeast Environmental Task Force and Alliance for the Great Lakes (“Environmental Groups”) offer these comments on the Board’s August 5, 2010 First Notice Opinion and Order regarding proposed rules establishing recreational use designations for the Chicago Area Waterway System (“CAWS”) and the Lower Des Plaines River (“LDPR”).

In summary, the Board’s First Notice decision is correct in its designation of the specified recreational uses and waterway reaches of the CAWS and LDPR, except insofar as the Environmental Groups encourage the Board to take into further account the comments of the United States Environmental Protection Agency (“USEPA”). With respect to the arguments against these designations presented by the Metropolitan Water Reclamation District (“MWRD” or the “District”), we note the following:

- *MWRD mis-applies the UAA standard.* It is abundantly clear from the record that the burden established by 40 CFR § 131.10(g) for designation of less than fishable/swimmable uses has been met, at most, to the limited extent proposed by IEPA and found by the Board pursuant to applicable Clean Water Act (“CWA”) regulations. The presence of commercial barge traffic or steep walls is clearly not an impediment to attainment of the uses designated by the Board. Numerous other waterways across the nation with these features have been designated general use. The record is replete with evidence that people are out on the water throughout the CAWS, and are increasing in number. None of the recreational users on record found

access, change in water levels, or barge traffic to be an issue when they were canoeing, kayaking or rowing on the river system. To the contrary, people testified about how the CAWS has ample boat launches, docks, ladders, gradual slopes, and shallow areas, allowing people to get out of the water in the rare event that it is necessary. Certain paddlers even voiced a preference for the CAWS because it has fewer waves, is more sheltered from wind, and provides a unique recreational experience.

- *A wet weather standard is premature absent a criteria proposal.* Wet weather standards, such as those adopted by Indiana to allow weaker pathogen standards for the White River in Indianapolis than those generally necessary to protect primary contact uses, are not relevant to any docket of this proceeding given the current nature of the Illinois Environmental Protection Agency (IEPA) proposal. IEPA has not at this time proposed ambient water quality standards to protect primary contact uses or any other recreational uses. At such time as IEPA proposes ambient water quality standards to protect recreational uses, there will be occasion to determine the times and seasons at which such standards will be applicable, as the Board has done for the pathogen standard currently applicable in most of the state. *See* 35 Ill. Admin. Code § 302.209. At that time, refinements to the standards necessary to better protect certain more sensitive uses that are supportable in certain reaches of the CAWS or LDPR should also be addressed.
- *The presence of carp will not impede the designated uses.* There is no basis in the record to believe that a large population of bighead or silver carp will be established in the CAWS or LDPR, let alone one that will render unattainable the recreational use designations that were adopted by the Board in the First Notice.

Accordingly, Subdocket A should proceed to Second Notice without modification, except insofar as the Board may modify its First Notice draft to further incorporate USEPA's recommendations.

A. IEPA's Burden of Proving that the CAWS and the LDPR Cannot Attain Fishable and Swimmable Uses Has Been Met, at Most, to the Limited Extent Found by the Board

The consistent and widespread existing use of the CAWS and LDPR for the incidental contact activities the proposed regulation seeks to protect has been overwhelmingly documented in the record. The Use Attainability Analysis ("UAA") studies conducted by and for IEPA prior to the filing of this proceeding fully documented an array of incidental contact recreational uses. Attachments A & B to IEPA Statement of Reasons. The Chicago Health, Environmental Exposure, and Recreation Study ("CHEERS") conducted for MWRD by the University of

Illinois at Chicago (“UIC”) also found these uses to be widespread---indeed, the CHEERS study authors recruited thousands of participants in these activities. Public Comment No. 478, as modified by errata filed in Public Comment No. 484. As the Board recognized on First Notice, the Environmental Groups supplemented this extensive record of recreational activities and access points with additional testimony and information. First Notice Opinion and Order R08-09 p. 18-21, 27-28, 36-45, 48-59, 83 (Aug. 5, 2010). All of this evidence, consistently showing the extensive use (by kayakers, waders, jet skiers, anglers, and other recreators) of the CAWS and LDPR, demonstrates at a minimum that there are no insuperable barriers to recreational use of these waterbodies. *See* Attachment A (“Incidental Contact Recreational Uses on the Chicago Area Waterways and Lower Des Plaines River”). Further, there is much evidence in the record that many more people would use these waters, and in many cases use them more extensively, if they did not fear adverse health effects from exposure to wastewater that has not been disinfected. First Notice Opinion and Order, p. 37 (citing testimony of Thomas Bamonte) and p. 39 (citing testimony of Margaret Frisbie).

Overall, the record overwhelmingly supports a conclusion that many reaches of the CAWS and LDPR are very attractive to recreational users because of their wildlife, architectural and historical interest and their convenience to large numbers of people. It is clear that no physical barrier keeps kayaking, canoeing and other recreational uses from being attainable in the reaches of the CAWS found to be suitable for incidental contact recreation by the Board. To the extent those uses have not actually been attained, it is because of pathogen pollution discharged by MWRD.

Although the Board based its findings of existing recreational uses in the CAWS and LDPR in its First Notice upon extensive evidence, MWRD and certain other participants in this proceeding are attempting to show that those uses are not attainable by relying on arguments that are illogical, specious and unsupported by law.

1. Exaggerated Risks of CAWS Recreation Are Not a Proper Basis to Find Recreational Uses Unattainable

The District argues that the CAWS and LDPR are not suitable for paddlers based on the presence of commercial navigation, steep concrete walls and occasional draw-downs in the system in anticipation of a storm. According to the District, these things render the documented recreational activities unsafe, and so they argue that it would be “irresponsible” of the Board to encourage them. “Comments on First Notice of Proposed Rules Establishing Recreational Use Designations for the CAWS and LDPR,” filed October 12, 2010 (“MWRD First Notice Comments”) at 4-5. This argument is wholly inconsistent with the law and facts on record.

In the first instance, this argument is inconsistent with the use designation standard set forth in the UAA factors. Those factors, as recognized and explained at length by USEPA, IEPA, and the Board in its First Notice, provide the sole basis under which states may designate

a use of less than fishable and swimmable. USEPA April 15, 2010 letter, Public Comment No. 290 at 1-2; IEPA Comments, Public Comment No. 298 at 4; First Notice Opinion and Order at 10-11. The relevant standard is not whether a particular use designation would be “irresponsible,” or whether there may be some risks associated with that use. Indeed, if that were the standard, recreation on most of our nation’s wild and scenic rivers would have to be declared unattainable, as many people have died over the years in those rivers in swimming and rafting accidents due to swift currents, unpredictable flows, and flash floods. Even Lake Michigan exposes recreators to high winds and strong waves, deep water and high speed boat traffic. *See Ex. 345, Northeastern Illinois Regional Water Trail Plan, 1999, pp. 30-31.* A waterway does not need to be flat, shallow, completely calm, and entirely accessible to be designated for recreational uses.

The correct standard is first, what uses are existing, and second, what uses are attainable as determined by the six UAA factors. Existing uses may not be removed. 40 CFR § 131.10 (g) and (h)(1). IEPA and the Board were clearly correct, as discussed above and in subsection 2 below, in determining that the proposed recreational uses already exist on the CAWS and LDPR. Additionally, IEPA and the Board carefully considered the relevant UAA factors in light of the facts concerning boat traffic and river structure and hydrology (in particular No. 3 concerning human caused conditions and No. 4 concerning hydrologic modifications) and concluded that these factors, while they may prevent attainability of primary contact uses, do not prevent attainability of incidental contact uses.

The District offers nothing of relevant substance to contravene this finding. It cites to IEPA’s recognition of the conditions on some parts of the CAWS (MWRD First Notice Comments at 4, citing IEPA Statement of Reasons at 33), which only further underscores the fact that IEPA carefully considered these conditions in its UAA factors analysis and ultimate conclusions. When read in full context, the IEPA recognized that the stretches designated for incidental contact recreation “are more accessible to the public” and have varied physical characteristics, ranging “from deep-draft, steep walled channels; to gradual sloped manicured banks.” IEPA Statement of Reasons at 34. This decision makes sense in light of the overwhelming evidence that the CAWS have plenty of access points, such as boat launches, docks and ladders. *See Ex. 346 (“Chicago Area Waterway System Recreational Access Points and Proposed Uses”), Ex. 350 (“Examples of Ladders Along the Chicago Area Waterways System”) and Ex. 264 (“Boat Launches Clark Park to River North Park”).* Contrary to MWRD’s characterization, the CAWS is interspersed with gradual shoreline and wadeable stretches. *See Ex. 351 (“Gradually Sloping Banks and Shallow Water in the Chicago Area Waterways System”).*

Thus, as a purely factual matter, the District has utterly failed to demonstrate the purported lack of safety of the CAWS and LPDR for the designated uses. After hundreds of hours of testimony, a hundred years of history, and a decade of observation, MWRD could not come up with one known conflict between paddlers and barge traffic on waterways designated

for “incidental contact” recreational uses, or any reported incidents from changing water levels. In fact, none of the recreational users testified that they experienced any problems with either while out on the CAWS. *See* e.g. May 6, 2009 Transcript (morning), pp. 12, 65, 71 and October 5, 2009 Transcript (morning), p. 181. As evidence of the purported safety risks, MWRD has only pointed to one fatal incident on the Lower Des Plaines River, which apparently resulted from choppy water conditions, an overloaded fishing boat, and lack of life preservers--- conditions clearly not specific to the CAWS. Ex. 9. Overall, except for the few reaches of the CAWS and LDPR that have been designated as “non-recreational” under the First Notice Order, there is either no commercial navigation at all, or there is no evidence in the record that recreational use is incompatible with commercial navigation. In fact, the region has worked extensively to ensure both can and do coexist---for example, as shown by the successful Division I regattas where hundreds of men and women compete in national rowing competitions on the Calumet-Sag Channel. Ex. 338; Ex. 354, pp. 7, 14.

What is more, many other waterbodies around the nation sharing the cited characteristics of the CAWS have been designated as fishable/swimmable uses. Much of Lake Michigan and the Mississippi River, as well the whole Illinois River, are used by commercial navigation, but it would be absurd to generalize from this that Lake Michigan and the Mississippi and Illinois Rivers cannot attain recreational uses – as indeed they do currently. Similarly, there are steep walls and changing flows in the Colorado River as it flows through the Grand Canyon, but to our knowledge it has not been suggested that recreational uses are not attainable in the Grand Canyon. Closer to home, Illinois’ Wild and Scenic River, the Middle Fork of the Vermillion, is not accessible at many points. It flows through much private property, and contains many places where canoeists may run aground and is not suitable for canoeing much of the year. Nonetheless it would be absurd to claim that recreational uses are not attainable on the Middle Fork. In any event, as Laura Barghusen testified on behalf of Openlands, the lack of exit points on the riverbanks due to steep walls has no real bearing on paddling safety, as a capsized canoeist or kayaker will stay with their boat and attempt to right it, rather than swimming to shore. Oct. 5, 2009 Transcript at 179 and May 6, 2009 Transcript (morning) at 82.

Moreover, to the extent there may be any risk at all to small craft boaters on the CAWS and LDPR – which has not been shown – the District has failed to demonstrate that these risks are significant specifically in the particular segments proposed for a incidental contact recreation designation in the District’s post-First Notice comments. MWRD First Notice Comments at 2. The District cites general testimony about waterway conditions, MWRD First Notice Comments at 4-5, but fails to link it to these specific segments, much less show that the supposedly hazardous conditions hold for the entire segment. One cannot show that recreational uses are not attainable on an entire reach of the CAWS or the LDPR because some portion of the reach presents some hazards to kayakers or others at some time or another.

2. The Board Correctly Determined that Widespread Incidental Contact Recreational Uses of the CAWS and LDPR Constitute Existing Uses That May Not Be Removed

In addition to trying to draw conclusions far broader than the facts cited can begin to support, the MWRD in its First Notice Comments, faults the Board for finding that canoeing, kayaking, fishing and other forms of recreation found to be present in a reach of the CAWS and LDPR is an “existing use.” This argument is based on a USEPA discussion from a 1998 Advanced Notice of Proposed Rulemaking (“ANPRM”) for revisions to the Water Quality Standards regulations in 40 CFR 131.¹ 63 Fed. Reg. 36742, 36752 (July 7, 1998). The ANPRM considers whether swimming is an “existing use” under the law if “a few people on a few occasions “swim” in a water body that does not have the quality or physical characteristic to support swimming.” *Id.* The ANPRM opines that swimming in such a case probably does not constitute an “existing use” if “other factors would appear to prohibit actually attaining a recreational swimming use.”

If the Board had found that swimming and other primary/full body contact uses of the CAWS are an “existing use” of the Cal-Sag Channel, the Chicago Sanitary and Ship Canal, the South Branch of the Chicago River and the Little Calumet River based on the evidence that some people do swim, tube and water ski there, *See* August 5, 2010, Opinion and Order, p. 19, Ex. 63, Ex. 279 and Ex. 36 pp.126-270, the 1998 ANPRM might lend some support to MWRD’s argument. But the Board did nothing of the sort. It found that *incidental contact recreation*, not swimming, is an existing use in much of the CAWS based on evidence that tens of thousands of people are engaging in such recreation every year. Activities such as canoeing, kayaking, jet skiing and fishing clearly occur in all stretches designated for incidental contact recreational uses - including those that MWRD has recommended be excluded from the incidental contact use designation. *See* Attachment A.

In any event, if the Board desires to know the views of USEPA on the recreational use attainability of the CAWS and the LDPR, those views can be determined far better from the October 8, 2010, letter filed in this proceeding by USEPA Regional Administrator Susan Hedman, Public Comment No. 497 (“USEPA October 8 Letter”), discussed in subsection 3 below. In that letter, Ms. Hedman questions whether the record is adequate even to sustain the designations for non-recreational and non-contact recreational uses that the Board made in the First Notice decision.

¹ The extent to which the 1998 ANPRM is an authority on anything is questionable. It was published in the Federal Register by USEPA to initiate a public discussion that was to lead to a rulemaking that would revise a number of water quality regulations. Many filed comments on the ANPRM but no regulatory change ever resulted from the ANPRM.

3. The Board Correctly Determined that Fishing is an Incidental Contact Recreational Activity

In its initial comments on recreational use designations dated April 15, 2010 (Public Comment No. 295), MWRD argued that IEPA inappropriately categorized fishing as an incidental contact use. MWRD dropped that argument in its First Notice Comments, but the Board requested comment concerning this issue in the First Notice.

Particularly following the CHEERS study, the record leaves no real doubt that fishing is an incidental contact activity, carrying with it the risk of water contact and ingestion. Not only did the CHEERS study expressly categorize fishing as an incidental contact recreational activity, the study specifically found that fishing and power boating were the two activities associated with the highest risk of gastrointestinal illness. Public Comment No. 478(CHEERS Report) at V-11. The study also found that fishing was most common among those under age 10, a sensitive population. June 30, 2010 Transcript at 73. This finding is consistent with a study referenced by NRDC's expert witness, Dr. Marylynn Yates, finding anglers to be at elevated risk. Ex. 103 (Roberts, Jennifer D., Ellen K. Silbergeld and Thaddeus Graczyk "A Probabilistic Risk Assessment of Cryptosporidium Exposure among Baltimore Urban Anglers" Journal of Toxicology and Environmental Health, Part A, 70:18, 1568-1576 (2007).)

4. USEPA's Letter to IEPA Provides a Basis to Conclude that IEPA's Application of the UAA Factors Was Insufficiently Conservative

MWRD's argument that the recreational use designations adopted in the First Notice should be downgraded directly contravenes the views expressed in the USEPA October 8 Letter. The USEPA's views in the October 8 Letter should be seriously considered as a basis to strengthen, not weaken, IEPA's proposal.

In its previous letter dated April 15, 2010 on the same subject, Public Comment No. 290 ("USEPA April 15 Letter"), USEPA pointed out that Clean Water Act ("CWA") § 101(a) and its associated regulations create a rebuttable presumption that fishable and swimmable uses are attainable. That is, if IEPA wants to apply the six UAA factors to demonstrate that such uses are *not* attainable, IEPA has the burden of proof to demonstrate the applicability of those factors. In both the April 15 and the October 8 letters, USEPA identifies the specific factual issues underlying its concern that IEPA has failed to meet its factual burden to demonstrate that full-body contact recreation is not attainable. In particular, USEPA cites to the District's ongoing efforts to control CSOs, and the possibility of time, place and manner restrictions on commercial traffic, and requests that IEPA reconsider whether these measures in fact could render primary contact recreation possible.

The Board, in its First Notice decision, does not directly address USEPA's specific concern that IEPA has failed to meet its burden of demonstrating the non-attainability of fishable

and swimmable uses. Instead, the Board effectively puts a reverse burden of proof on USEPA to demonstrate that the referenced measures would, in fact, be practicable and render primary contact recreation possible. Specifically, the Board states that USEPA “has offered no support for this opinion or explanation on potential economic impacts on businesses serviced by the barge traffic.” However, the law is clear that it is *IEPA*’s burden to demonstrate that these types of measures would *not* be effective, in performing the necessary analysis to prove that the cited UAA factors in fact limit the attainability of fishable and swimmable uses. USEPA is not obligated under the CWA to do *IEPA*’s job of evaluating the practicability of obvious measures that may render primary contact uses attainable on some reaches.

USEPA did, moreover, provide strong additional factual support for its contentions in its October 8 letter, which provides detailed point-by-point refutation of several of *IEPA*’s reasons for rejecting a fishable/swimmable designation – including safety concerns, access concerns, and waterfowl-generated *E.coli*. While *IEPA*’s extensive UAA analysis was commendable, and identified many attainable uses, the sheer volume of that analysis does not render it unimpeachable. The Board should seriously consider, particularly in light of this additional information, requiring fishable and swimmable use designations where *IEPA* has failed to demonstrate under the six UAA factors that they are not attainable.

In any event, in light of USEPA’s analysis, it will be important when the Board is presented with an indicator criteria proposal for the CAWS and LDPR that the Board takes into account the possibility of more sensitive uses in some parts of the CAWS. Even if the designated use remains no higher than incidental contact recreation, this term is by nature somewhat ambiguous, and the ambiguity should be resolved in favor of more conservative protection. Given the considerations identified by USEPA, it is entirely possible that the types of “incidental” contact recreation practiced in the relevant reaches of the CAWS may well tend to look more like primary contact recreation. In this regard, we note that USEPA has in the past identified kayaking as a form of primary contact recreation. Letter from U.S. EPA Region 5 (Linda Holst) to Toby Frevert, *IEPA* (Feb. 13, 2007) (Attachment B).

5. The Presence of Asian Carp in No Way Diminishes the Attainability of the Uses Designated in the First Notice

There is no basis whatever in the record to conclude that the presence of silver or bighead carp (in as yet undetermined numbers) in any way alters the attainability of incidental contact recreational uses in the CAWS and LDPR. In the CAWS, the reaches designated for recreational uses are all above the electrical barrier system, which is designed to stop the bighead and silver carp from moving upstream in numbers large enough to establish large populations.

Even as to the LDPR, it is far from certain that the silver and bighead carp will establish a population in numbers that will lessen the attractiveness of the area for water-based recreation. Large numbers of Asian carp have not been found so far in the Upper Dresden pool. The Asian

Carp Regional Coordinating Committee is actively engaged in a number of Asian carp control strategies in the CAWS and LDPR, including upgrading and maintaining the electrical barrier system to deter Asian carp from entering the CAWS and contracting with commercial fishers to remove Asian carp both within and downstream of the LDPR.²

Although environmental DNA or “eDNA” evidence indicates that some Asian carp have likely made it past the electric barrier system and into the CAWS,³ there is no evidence in the record that Asian carp have already established a reproducing population in the CAWS. Asian carp migrating toward Lake Michigan through the CAWS do pose a substantial economic and ecological risk to the Great Lakes, but this is primarily due to the risk that once Asian carp enter Lake Michigan they will spread through the Great Lakes system and establish reproducing populations in one of the 22 other tributaries that the U.S. Geological Survey has identified as potential habitat for bighead or silver carp.⁴ The CAWS is not itself one of those 22 tributaries that have been identified as at risk for spawning of bighead or silver carp, but rather is the current focus of federal and state agency efforts to monitor and control Asian carp populations because it could serve as an entry point for adult bighead and silver carp to access the Great Lakes system.

In short, there is no evidence in the record that the presence of Asian carp, notwithstanding the significant risk they may pose to the Great Lakes, will interfere seriously with water-based recreation on the CAWS or LDPR.

Nor is there any evidence in the record that federal and/or state agency activities to control Asian carp populations will interfere with water-based recreation on the CAWS or LDPR. Thus far, the actions taken to control Asian carp have had no effect on recreation in the LDPR at all and have affected only a few miles of the CAWS for a few days. *See* Public Comment No. 505 (“Attachment”). No commenter has actually identified any scheduled activity that will substantially interfere with recreation in the future. While some have speculated that in the future, frenzied federal and state officials may engage in widespread activities in the CAWS that will greatly interfere with recreational activities, one can speculate anything.⁵

Finally, while it is true that bighead and silver carp, if established in a waterway in large numbers, can pose risks to the safety of waterway users by leaping out of the water at passing

² *See, e.g.*, Asian Carp Regional Coordinating Committee, *Asian Carp Control Strategy Framework*, available at <http://www.asiancarp.org/Documents/AsianCarpControlStrategyFrameworkMay2010.pdf>.

³ *See, e.g.*, Eartha Jane Melzer, “U.S. Army Corps finds more signs of Asian carp migration,” *Michigan Messenger*, Nov. 11, 2010, available at <http://michiganmessenger.com/43381/u-s-army-corps-finds-more-signs-of-asian-carp-migration>.

⁴ Cindy S. Kolar, et al., *Bigheaded Carps: A Biological Synopsis and Environmental Risk Assessment* 128 (American Fisheries Society 2007); *see also* Cindy S. Kolar, et al., *Asian Carps of the Genus Hypophthalmichthys (Pisces, Cyprinidae) — A Biological Synopsis and Environmental Risk Assessment* 111-17 (U.S. Fish & Wildlife Service 2005), available at <http://www.fws.gov/contaminants/OtherDocuments/ACBSRAFinalReport2005.pdf>.

⁵ One might also speculate that disinfection is needed to protect professional fisherman from coming into contact with human pathogens while fishing for Asian carp.

boats, there is nonetheless no real evidence that the presence of Asian carp would impede every type of limited contact water recreation that the proposed regulation protects. Indeed, there are recent reports that fishing is thriving in the areas of the Lower Illinois River that have been overrun by Asian carp⁶ and other forms of limited-contact water sports, as well as commercial activities, are developing in the Lower Illinois River *because of* the Asian carp. In this area of the Lower Illinois, even as bighead and silver carp populations have established themselves and caused significant harm to the ecosystem, the presence of Asian carp has not caused an end to recreational uses on the river. Similarly, there is simply no basis in evidence for speculating that the presence of Asian carp in the Lower Des Plaines River will prevent that waterway from supporting recreational uses either.

B. The Board Should Consider Wet Weather Standards and Other Refinements to Ambient Water Quality Standards for the CAWS at Such Time as an Ambient Water Quality Standard Proposal to Protect Recreational Uses is Before Board

IEPA has not proposed ambient water quality standards to protect the recreational uses designated for the CAWS. As an interim technology-based control, IEPA has proposed that disinfection begin to take place at the Calumet, North Side and Stickney sewage treatment plants as is done at other MWRD plants as well as by all other Illinois publicly owned treatment works pursuant to 35 Ill. Adm. Code § 302.209. *See* previous Board orders R04-26 (Sept. 15, 2005) and (Jan. 19, 2006), Attachments E and F. IEPA anticipates offering an ambient water quality standard in the future. IEPA Statement of Reasons p. 45.

The Environmental Groups believe that a wet weather standard should more appropriately be considered, if at all, in the context of any future rulemaking concerning ambient water quality standards, which have not yet been proposed. In the absence of such standards, a wet weather designation has little meaning. This is best illustrated by the Indianapolis wet weather standard, an exception to the applicable primary contact standard, which MWRD has brought to the attention of the Board.

Indianapolis has sought relief specifically from a water quality standard applicable to the water to which its plants discharge. The White River, which flows through Indianapolis, and certain of its tributaries are subject to a pathogen limit of 125 colony-forming units *E. coli* per 100 milliliters (cfu/100 mL). 327 IAC 2-1-6 (d)(3)(A), as referenced in Ex. 117. It is this *E. coli* water quality standard which is made inapplicable for a limited period under the Indiana wet weather standard after certain severe storm water events. The Indianapolis wet weather standard was adopted because during and immediately after major storms, combined sewer overflows (CSOs) discharge into the White River and its tributaries without treatment by either the Belmont

⁶ Lampe, Jeff, "Bass Fishing on Illinois River is Back," Peoria Journal Star, (Aug. 7, 2010) (Attachment C) and Lampe, Jeff, "Illinois River Shows Fertility Despite Carp," Peoria Journal Star (Aug. 6, 2009) ("With the notable exception of gizzard shad, most native species appear to be coexisting with carp. Several gamefish are actually thriving.") (Attachment D).

or Southport sewage treatment plants. These largely untreated CSOs cause violations of the *E. coli* standard. However, if there were no *E. coli* standard, there would be no occasion to decide when the standard should not be applicable and the White River Wet Weather standard is certainly not a precedent for creating a wet weather exception to normal sewage treatment plant disinfection.

Thus, wet weather standards might more appropriately be considered (although they are not necessarily appropriate in substance) at such time as IEPA proposes ambient water quality standards to protect recreation in the various reaches of the CAWS. The Environmental Groups believe that at that time the Board should also adopt pathogen standards for portions of the CAWS sufficient to protect recreational uses for which there is a substantial likelihood of coming into contact with water. These uses including kayaking, tubing, wading and other uses now considered to be “incidental contact” uses under the Illinois classification system but that have been considered “primary use” by USEPA and even one of MWRD’s consultants. Weaker pathogen standards might be adopted for waters that are only used for large vessels and by that time it may be that portions of the system should be designated for protection for swimming.

Finally, we note that unlike MWRD, Indianapolis has not sought to avoid installing disinfection technology, which has been found economically reasonable across the country. In fact, Indianapolis and every other sewage treatment plant in Indiana now disinfects its wastewater from April 1 until October 31. Sept. 25, 2008 (morning) Transcript, p. 66-67.

We further note, in this regard, that the new draft permits issued for sewage discharges in the City of Memphis – held up in the past by the District as an isolated example of another large city that does not disinfect – now require disinfection. *See* Compliance Schedules from draft NPDES permits, Attachments G and H. We urge the Board, and will continue to do so in Subdocket B, to ensure that Chicago no longer remains an outlier among the cities throughout the nation, which protect public health through disinfection.

Conclusion

The Board First Notice proposal for recreational use designations should be sent to Second Notice without change, except insofar as the Board may modify it in response to the comments submitted by USEPA.

Respectfully submitted,

ENVIRONMENTAL LAW & POLICY
CENTER

NATURAL RESOURCES DEFENSE
COUNCIL

OPENLANDS

SIERRA CLUB—ILLINOIS CHAPTER

FRIENDS OF THE CHICAGO RIVER

PRAIRIE RIVERS NETWORK

SOUTHEAST ENVIRONMENTAL TASK
FORCE

ALLIANCE FOR THE GREAT LAKES

By:

A handwritten signature in black ink, appearing to read "JD", is written above a horizontal line.

Jessica Dexter, Staff Attorney, ELPC
Counsel authorized to file this comment on
behalf of all of the above parties

Dated: November 30, 2010

CERTIFICATE OF SERVICE

I, Jessica Dexter, hereby certify that I have served the attached **Comments on the First Notice of Proposed Rules Establishing Recreational Use Designations for the Chicago Area Waterway System and the Lower Des Plaines River** upon:

Mr. John T. Therriault
Assistant Clerk of the Board
Illinois Pollution Control Board
100 West Randolph Street, Suite 11-500
Chicago, Illinois 60601

via electronic filing on November 30, 2010; and upon the attached service list by depositing said documents in the United States Mail, postage prepaid, in Chicago, Illinois on November 30, 2010.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'JD', with a long horizontal flourish extending to the right.

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**Incidental Contact Recreational Uses on the
 Chicago Area Waterways and Lower Des Plaines River**
 Environmental Groups R08-09A Comment Letter, Nov. 30, 2010 (Attachment A)

This table shows the location of record evidence of recreational activities in various segments of the CAWS and LDPR proposed for incidental contact recreation. Numbers referenced in this table (e.g. "2") correspond to record documents as listed on the next page.

	Canoeing & Kayaking	Rowing	Jet skiing	Fishing	Wading
North Shore Channel	B (pp 1-11, 4-24), F (2005-2007), J, K, M, P, Q, V (p 73), W (pp 27-28), Y (p 60)	B (p 4-24) F (2005-2007), L, W (p 18)		B (pp 1-11, 4-24), F (2005-2007)	B (p 4-24)
North Branch Chicago River (from North Shore Channel to South Branch & Mainstem Chicago R.)	B (pp 1-11, 3-7, 4-45), F (2005-2007), J, K, M, O (Sect. IV), P, Q, S, V (p 149), W (pp 27-28), X (p 73), Y (pp 32-33, 43, 60)	B (pp 3-7, 4-45), F (2005-2007), L	B (p 4-45) (skiing or tubing)	B (pp 1-11, 4-45), F (2005-2007), N (River Park, Clark Park), W (p 44), Y (pp 20, 43)	B (p 4-45), D, N (River Park, Clark Park)
Chicago River (Mainstem)	B (pp 3-6, 4-46), F (2005-2007) J, P, Q, S, V (p 150), X (p 73), Z (p 77, cover)	B (pp 3-6, 4-46) F (2005-2007) H, L, W (p 17)	F (2005) (skiing and/or tubing)	W (p 44)	
South Branch Chicago River and its South Fork	B (pp 1-11, 3-4, 3-5, 4-47), F (2005-2007), J, P, Q, S, W (pp 27-28), X (p 73)	B (p 4-47) F (2005-2007), L*, W (pp 31, 35)	B (p 4-47) (skiing or tubing) F (2005) (skiing and/or tubing)	B (p 1-11, 4-47), I (Photos 30, 31), N (Bubbly Cr.), W (p 44)	N (Bubbly Cr.)
Chicago Sanitary & Ship Canal to Cal-Sag Channel	B (p 4-70) F (2005-2007), Q, X (p 74)	B (p 4-70) F (2005-2007)	F (2007) (skiing and/or tubing), T (p 5)	B (p. 4-70) F (2005-2007), I (Photo 55)	D, N (Kids Wading and Swimming)
Calumet River	P, S, X (p 75)			B (p 1-11)	
Lake Calumet	P, X (p 75)				B (p 1-11)
Lake Calumet Connecting Channel	P, X (p 75)				D
Grand Calumet River	B (p 4-84) (proposed launch)			B (pp.1-11, 3-11)	D
Little Calumet River	B (p 4-85) F (2005-2007), Q, X (p 77)	B (p 4-85)	C, I (photos 110-112)	B (p 1-11), F (2005-2007)	D
Calumet-Sag Channel	B (pp 1-11), E (p 31), F (2005-2007), P (East of Alsip), Q, S	L, O (Sect V), U (pp 7, 14), W (p 31, 45)	B (pp 1-11, 3-9, 4-85)	B (p 1-11, 3-9, 4-85), F (2005-2007)	B (p 1-11), D
Lower Des Plaines River to I-55 Bridge	P (planned but unimproved trail), S		A (p 7-44)	A (p 7-44)	

* Planned construction of a boat house adjacent to Bubbly Creek for use by Chicago Training Center, as cited in Ex. 269.

References

- A IEPA Statement of Reasons (SOR), Att. A (Lower Des Plaines River Use Attainability Analysis)
- B IEPA SOR, Att. B (Chicago Area Waterway System Use Attainability Analysis) Note: combines observations of skiing and tubing.
- C IEPA SOR, Att. K
- D IEPA SOR, Att. L: *Inventory of Public Access locations along the Chicago Area Waterway System* (Sites identified by IEPA as having “existing or potential wading.”)
- E Ex. 55: *Protecting Public Health, Caring for Chicago’s Waters*, Alliance for the Great Lakes (2003)
- F Ex. 62: William Stuba Prefiled Testimony, Att. 1-3: Metropolitan Water Reclamation District of Greater Chicago “Summary of Observations of Recreational Activities for 2005, 2006, 2007.” (Sites identified by MWRD as having canoeing, kayaking and/or sculling. *Note: MWRD combines mainstem and south branch Chicago River observations and reports activities as seen on one or both of those river segments.*)
- G Ex. 63: MWRD “Annual Summaries of Recreational Activities Observations”
- H Ex. 265: Egress Points on the CAWS (Margaret Frisbie, May 6, 2009) - Rowers at Wolf Point.
- I Ex. 266: Circle Tour Photos (Margaret Frisbie, May 6, 2009)
- J Ex. 267: Friends of The Chicago River Individual Canoe Trips By Reach 1998 to 2008 (Margaret Frisbie, May 6, 2009)
- K Ex. 268: Chicago River Canoe and Kayak Liveries (Margaret Frisbie, May 6, 2009)
- L Ex. 269: Crew Teams on the Chicago River (Margaret Frisbie, May 6, 2009)
- M Ex. 270: Chicago Park District Canoe Trips 2004-2008 (Margaret Frisbie, May 6, 2009)
- N Ex. 279: Wading on the CAWS (Margaret Frisbie, May 6, 2009)
- O Ex. 338: Laura Barghusen Prefiled Testimony (Oct. 5, 2009)
- P Ex. 345: *Northeastern Illinois Regional Water Trail Plan* (1999) (Designated water trails for paddling)
- Q Ex. 346 (Existing boat launches): *Chicago Area Waterway System Recreational Access Points and Proposed Uses* (Laura Barghusen, Oct. 5, 2009)
- R Ex. 346 (Proposed boat launches): *Chicago Area Waterway System Recreational Access Points and Proposed Uses* (Laura Barghusen, Oct. 5, 2009)
- S Ex. 347: *2006 Paddling Survey* (Laura Barghusen, Oct. 5, 2009)
- T Ex. 353: *Examples of Boat Launches in and near the Chicago Area Waterway System* (Laura Barghusen, Oct. 5, 2009)
- U Ex. 354: Openlands Answer to IEPA Prefiled Question #1 (Jerry Adelman, Oct. 5, 2009)
- V R08-09 Transcript (Laura Barghusen, Oct. 5, 2009)
- W R08-09 Transcript (Margaret Frisbie, May 6, 2009, 9 a.m.)
- X R08-09 Transcript (Tom Bamonte, May 6, 2009, 9 a.m.)
- Y R08-09 Transcript (June 16, 2008) - public hearing
- Z PC #294, Att. E: “Paddle your own canoe,” *Chicago Parent - Going Places* (Summer 2009), cover at p. 77.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

FEB 13 2007

REPLY TO THE ATTENTION OF:
WQ-16J

Toby Frevert, Manager
Division of Water Pollution Control
Illinois Environmental Protection Agency
1021 North Grand Avenue East
PO Box 19276
Springfield, Illinois 62794-9276

Dear Mr. Frevert:

This letter documents our understanding of procedural modifications that the Illinois Environmental Protection Agency (Illinois EPA) agreed to consider regarding the issuance of disinfection exemptions following our recent discussions on this subject. In the following weeks, our staffs will continue the discussion of the shorter-term solutions to these problems and we will also begin to discuss the longer-term resolution to some of these issues, namely, revisions to your water quality standard rules.

As you recall, the issue of disinfection exemptions and the determination that primary contact recreation is not an appropriate use for these stream segments has been analyzed and discussed by both our agencies for some time. Recently, the Prairie Rivers Network (PRN) expressed their concerns regarding these procedures in a November 7, 2006, letter to the Region and to the Illinois EPA. At the January 8, 2007, meeting between our agencies and the PRN, you agreed to consider several procedural modifications that addressed specific concerns raised by the PRN. For the record and as a starting point for future discussions, I have listed these items below. We agree with the PRN that these procedural modifications will enhance your disinfection exemption procedures.

Procedural Modifications for the Issuance of Disinfection Exemptions

- Analyze and determine the appropriate subset of dischargers/applicants that should submit new data to support reissuance of exemptions and do not rely solely on original data that in some cases was collected in the late 1980's. These data should include fecal coliform monitoring data, recreational use surveys including downstream use, and the reassessment of access to the receiving water. Modifications to the application documents should be made as needed.
- Look at ways to improve and ensure that adequate communication takes place between the Illinois EPA, the dischargers/applicants and the public (especially recreational users). Look into ways to provide a list of all facilities with exemptions to the public, possibly through the Illinois EPA website.

- Ensure that all primary contact activities are considered when the waterbody in question and all downstream waterbodies are surveyed for evidence of, or potential for, primary contact recreation. Besides swimming, these activities include water skiing, kayaking, and similar activities. Waters where child-play may be likely should also be considered since ingestion of water is likely to occur in these situations.
- Consider the inclusion of more extensive monitoring requirements in the National Pollutant Discharge Elimination System (NPDES) permits for certain larger facilities.
- Research the more sensitive total residual chlorine (TRC) analytical methods and consider adopting these methods if appropriate. Include a water quality based effluent limit for TRC into NPDES permits in cases where chlorine disinfection is used.

In addition to these shorter-term procedural modifications, we also want to begin the discussion of the longer-term rule revision solution. Two items that were specifically raised by PRN and that were initially categorized as needing a rule revision to resolve were: the appropriate recreational season begin and end dates and the inadequacy of the use attainability analysis process in regards to recreational uses.

Thank you for your willingness to consider making modifications to your procedures to address the concerns that have recently been raised. Please review the items listed above and let me know if you find them consistent with what we discussed. This list will be used as the basis for our follow-up discussions.

Please feel free to contact me at 312-886-6758, or Tom Poleck of my staff at 312-886-0217 or via email at poleck.thomas@epa.gov, if you would like to discuss this matter further.

Very truly yours,



Linda Holst, Chief
Water Quality Branch



cc: Marcia Willhite, Illinois EPA
Robert Mosher, Illinois EPA
Traci Barkley, Prairie Rivers Network
Albert Ettinger, Environmental Law & Policy Center
Cindy Skrukrud, Sierra Club



Lampe: Bass fishing on Illinois River is back

By **JEFF LAMPE**
of the Journal Star

Posted Aug 07, 2010 @ 09:04 PM

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PEORIA — Moments after he started casting, Bob Thompson set the hook and cracked a smile when a bass went airborne.

Over the next 20 minutes, he and his son Dave combined for eight largemouths — all caught within sight of downtown Peoria and all caught despite a rising river and strong current.

The fast action was proof yet again that Illinois River bass fishing is back. For veteran river anglers like the Thompsons, the bass comeback is welcome news. Best of all, the turnaround is not just a Peoria phenomena.

“There’s really no one place that’s best right now,” Bob Thompson said. “Beardstown. Havana. Chillicothe. Henry. They’ve all got fish. And there’s still fish around Pekin.”

Still fish around Peoria, too. Or at least on the East Peoria side of the river. That’s where the Thompsons caught their bass while fishing a rocky ditch out of the current.

Just don’t ask which ditch. And don’t make the mistake of thinking you can cast anywhere to catch bass. “It’s a big river, but it fishes small,” Bob Thompson said. What he means is there are vast stretches of water where you’ll be hard-pressed to find bass.

But when you locate a prime spot, you might catch 20 or 30 keepers in short order. That’s exactly what the Thompsons did last weekend to win the Illinois River Team Trail tournament with five bass weighing 12.35 pounds.

Cory Hasler and Sean Sonderleiter took second (five bass, 11.78 pounds) and had big bass of 3.44 pounds. Doug Gudat and Ben Roberts placed third (five, 11.56).

This year the Thompsons have won all four river tournaments they’ve entered. The key, Bob Thompson said, is reading river levels and current. And that can change almost daily.

For much of the spring and summer, high water allowed anglers to fish backwaters that have become unreachable. But even as the river dropped steadily toward normal pool, heavy rains in Chicago sent a surge of water that had the current zipping through Peoria on Friday.

“Everything changes out here depending on the water levels,” Bob Thompson said. “Right now you don’t want to be on the main river with this current. At normal pool you do want to be on the main river.

“You just want it to stabilize. And once it drops a little, they will bite like crazy.”

Reading the river is also important from a safety standpoint.

“The way siltation is around Peoria, you get off the channel by a foot or two and you better know where you are going,” Dave Thompson said.

Even regulars face risks. Washington angler Randy Marchard has been a fixture of river tournaments since the 1980s. Yet last weekend he totaled his Ranger bass boat after colliding with a large chunk of concrete in the Woodford County ditch.

More prevalent than rocks are Asian carp. “We went into one little ditch the other day and had four of them in the boat all at once, jumping and snorting and sliming everything,” Bob Thompson said.

That said, bass anglers also credit the invasive carp.

“They say the carp spawn twice a year and that’s putting lots of food in there for the bass,” said Brent Werries, coordinator of the Illinois River Team Trail. “A lot of these bass the guys are bringing in, their bellies are about to explode with little carp.”

No doubt a carp-imitating bait is in the works somewhere. Not that lure selection for river bass fishing is all that complicated.

Bob Thompson has one plastic container for all his river baits. Dave Thompson jokes you could fit his “in a Folger’s can.”

Small spinnerbaits. Square-billed crankbaits. Ringworms. Plastic baits that imitate crayfish. Those are the staples of most Illinois River bass chasers.

Using those familiar lures again on a regular basis makes Bob Thompson smile.

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11/30/2010

* * * * *

PC # 555

Lampe: Bass fishing on Illinois River is b...

“For a while there, bass were no good on the river and we hardly even came out,” he said. “Now they’re back and so are we.”

JEFF LAMPE is Journal Star outdoors columnist. He can be reached at jlampe@pjstar.com or 686-3212.

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Illinois River shows fertility despite carp

By **JEFF LAMPE**

OF THE JOURNAL STAR

Posted Aug 06, 2009 @ 07:34 PM

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The Illinois River never fails to amaze.

And not just because of all those pesky flying carp.

Ever since Asian carp numbers started skyrocketing in the late 1990s I've been expecting the worst. Surely all that invasive bio-mass had to take a toll on native gamefish.

Amazingly enough, we're still waiting to see the bottom drop out of the Illinois River fishery. That's true even though silver carp made up 51 percent of all fish sampled by the Illinois Natural History Survey in the river's LaGrange Pool in 2008.

With the notable exception of gizzard shad, most native species appear to be coexisting with carp. Several gamefish are actually thriving.

That's an amazing testament to the fertility of the Illinois River.

The other day I went out with fish biologists to conduct annual surveys at Henry and Lacon. To gauge the aquatic population, biologists run electric current into the water that temporarily stuns fish.

In just 22 minutes of sampling at Henry, we netted 29 species of fish. You name it, we saw it — from gar to crappie to longear sunfish.

Particularly noteworthy were the abundant largemouth bass, a trend I'll write more about Sunday. That's just one of several gamefish doing well.

While we didn't see them in great numbers that day, sauger are also surging by all accounts. Though weights were not overly impressive for last weekend's FLW Walleye League event out of Spring Valley, numbers of sauger caught bodes well for the future.

Limits were plentiful, including David Kleszyk's winning sack of five sauger weighing 10 pounds, 4 ounces. The best technique was trolling crankbaits at speeds of 2 mph or more.

Anecdotal evidence also shows white bass are running better in the Peoria area than they have in years. Duck Island remains a hotspot and creek mouths, dams and backwaters up and down the river are producing white bass in impressive numbers.

Not surprisingly, channel catfish are thriving as well. Tournament weights have been consistent this summer, with 36-46 pounds needed to win most events with six-fish limits.

In recent days cut baits have been producing big cats. So cut baits figure to be popular during Saturday's Tri-County Catfish Association event (6 p.m. to 1 a.m. out of Pekin) and at Sunday's Spring Valley Boat Club tournament (6 a.m. to noon out of Barto Landing).

But that leads us to the one indicator that has me worried. More and more anglers have been forced to dissect Asian carp for bait instead of gizzard shad, which for years has been the preferred food source for most predator fish.

Once plentiful in the river, shad have become scarce — a troubling point on which biologists and anglers agree.

"Everybody up this way is having trouble catching shad," said Darrell "Buster" Culjan, a guide who runs Cajun's Bait Shop in Utica. "It's even worse in the Ottawa pool. Something has happened to the shad. Maybe we're finally seeing the effect of all those carp."

The same is true at Henry and Lacon. We saw only a handful of large shad and encountered a few schools of 2-inchers while electro-fishing. That had veteran biologists Wayne Herndon and Ken Russell shaking their heads. "Used to be you'd see lots of 7- and 11-inch shad this time of year," Herndon said. "They're just not here any more."

Downstream is no better. Tom Alcorn of Tom's Bait Shop in Beardstown once netted shad by the thousands to supply bait dealers in southern Illinois. No longer.

"They're just non-existent. It used to be we could make a seine haul in the marina here and catch 150 or 200 pounds of shad in one haul," Alcorn said. "You don't see that anymore. It's terrible."

Alcorn wonders if pelicans are eating the shad.

11/30/2010

Electronic Filing - Received, Clerk's Office, November 30, 2010

***** PC # 555 Illinois River shows fertility despite carp ...

Maybe. More likely Asian carp are out-competing shad.

And while native species seem to enjoy eating small silver carp, one problem is that those fish grow faster and larger than shad.

“They’re not vulnerable as long as shad,” Herndon explained.

Long-term, that may still be cause for worry. But in the short term, the next few months look like they should offer excellent fishing on the Illinois River — not to mention all the Asian carp you want to shoot, snag or net.

BASS BITE: Monday should have been the night. A full moon was two days away. Weather was warm and relatively stable. Surely the top-water bass bite would be strong.

“You better think of another article,” fishing buddy Gordon Inskeep said after our outing in a bass-filled Peoria County lake produced only a handful of sluggish top-water fish.

That’s been par for the course for me this year. While I love to see bass explode after buzzbaits, poppers and surface frogs, those lures have just not been very productive for me. Even the fish we do catch lack the usual explosive strikes.

Maybe the unseasonably cool weather is to blame. Maybe it’s all the rain. Whatever the case, for the first time in years I’m hoping for a string of hot, muggy, 90-degree days. I’ll gladly sweat to enjoy an evening of surface-slashing bass.

STREAM TIME: In addition to fishing top-water for largemouths, another good warm-weather plan is to wade for smallmouth bass.

High water and cool temperatures have put wade fishing on the back burner this summer. But this weekend should be an excellent time to tie on ratty sneakers and get wet.

Smallmouth guru Jonn “Stream Stalker” Graham said area creeks and rivers are finally in prime condition. Graham often fishes the Mackinaw River and offered this report:

“Smallies, white bass, walleye, rock bass and drum all seem to be active,” he wrote. “Small blade baits have been stellar. And inline spinners fished around current and depth will catch everything that swims in the Mack right now.”

Et cetera: The Boat Tavern in Bath has a pole-and-line carp tournament at 7 a.m. Saturday. Call (309) 546-2545. ... Bartonville’s chapter of Ducks Unlimited has a Hunter’s Night Out event Saturday at Bartonville American Legion, starting at 4 p.m. Call (309) 369-8733 or visit Presley’s Outdoors for tickets. ... Duck decoys are featured items at the Illinois Valley Sporting and Fishing Collectibles show from 8 a.m. to 3 p.m. Sunday at Celebrations 150 banquet hall in Utica. Call (815) 223-8764.

JEFF LAMPE is Journal Star outdoors columnist. He can be reached at jlampe@pjstar.com or 686-3212.

ILLINOIS POLLUTION CONTROL BOARD
September 15, 2005

IN THE MATTER OF:)
)
PROPOSED 35 ILL. ADM. CODE) R04-26
304.123(g), 304.123(h), 304.123(i), 304.123(j),) (Rulemaking - Water)
and 304.123(k))

Proposed Rule. Second Notice.

OPINION AND ORDER OF THE BOARD (by T.E. Johnson):

Today the Board adopts this proposed rule for second notice pursuant to the Illinois Administrative Procedure Act. 5 ILCS 100/1-1 (2004). The following opinion will explain the proposal background, summarize the second-notice proposal, and discuss the economic reasonableness and technical feasibility of the rule.

BACKGROUND

On May 14, 2004, the Board received a rulemaking proposal from the Illinois Environmental Protection Agency (Agency). The Agency seeks to set an interim phosphorus effluent standard by adding five new subsections (g-k) to existing 35 Ill. Adm. Code 304.123. A motion for acceptance accompanied the proposal.

In its statement of reasons, the Agency asserts that it is in the process of developing the State numeric nutrient standards pursuant to its triennial water quality standards review. Pet. at 7. The Agency expects to file a nutrient standards petition with the Board in early 2007. Pet. at 8. In the interim, the Agency is proposing this effluent standard for phosphorus to limit higher concentrations of phosphorus that may result in detrimental levels of plant and algae growth. *Id.* The Agency requests that the interim effluent standard apply until the Board adopts a numeric water quality standard for phosphorus.

Two hearings were held before Board Hearing Officer John Knittle. The first hearing was held on August 30, 2004 (Tr.1), in Chicago. The second hearing was held on October 25, 2004, in Springfield (Tr.2). During those hearings the Board heard testimony from a number of witnesses. The Board received 17 public comments prior to proceeding to first notice.

On April 7, 2005, the Board found that the proposal was technically feasible and economically reasonable. The Board proceeded to first notice, and noted that additional comments on the proposal would be accepted.

The proposed amendments were published in the *Illinois Register* on May 6, 2005. See Ill. Reg. Vol. 29 Issue 19, p. 6200. The Illinois Association of Wastewater Agencies (IAWA) filed a public comment on June 20, 2005. On July 1, 2005, the Environmental Law & Policy

Center, Prairie Rivers Network and Sierra Club (collectively ELPC) filed a response to the comments of IAWA. The Agency filed a comment on July 26, 2005.

PUBLIC COMMENTS AND RESPONSE

Three public comments and a response were filed in this rulemaking after the Board proceeded to first notice. Both the Agency (PC 22) and ELPC (docketed as a response, hereinafter ELPC Resp.) were supportive of the proposal the Board sent to first notice. The IAWA (PC 21) filed a comment against the proposal on June 20, 2005. On August 31, 2005, the IAWA filed additional comments, accompanied by a motion for leave to file *instanter*.

In the motion for leave to file, the IAWA asserts that through a combination of factors including vacation schedule and workload, it has not been able to file the comments in a timely fashion. Mot. at 1. The IAWA contends that the purpose of the additional comments is not to prejudice the other parties, but to provide the Board with the IAWA's unique insight into what it believes is a mistake by the Board in its previous order. *Id.*

Hearing Officer John Knittle directed the parties to indicate on or before September 9, 2005, whether any response to the motion and comments would be forthcoming. ELPC indicated that they would not be filing any response to the motion or comment. To date, no other responses have been received by the Board. The motion for leave to file is granted, and the Board accepts the IAWA's additional comments, and docketed the comments as Public Comment 23 (PC 23). The pleadings are summarized below.

IAWA

The IAWA continues to oppose the proposal as insufficiently supported. PC 21 at 1. IAWA asserts that the record does not contain evidence that phosphorus is causing widespread pollution problems in the state of Illinois, or that promulgation of the proposed standard will have a measurable impact on eutrophication. *Id.* The IAWA contends that eutrophic conditions may or may not be an environmental problem depending on the presence or absence of conditions other than phosphorus, such as low reaeration rates. *Id.* The IAWA notes that the Illinois Eater Quality Report prepared by the Agency does list many streams segments as impaired due to phosphorus, but that the listing is not based on onsite determination of cause and effect, but on statistical guidelines. *Id.* The IAWA contends that this should not be considered evidence that these elevated levels of phosphorus are causing environmental problems. PC 21 at 1-2.

The IAWA states that the Agency, along with the Illinois Nutrient Work Group, is in the midst of a multi-year undertaking to develop science-based water quality standards, and that IAWA does not believe the record in this matter documents an urgent need to shortcut the science-based approach. PC 21 at 2. The IAWA contends the proposed rule will have very limited impact on the total amount of phosphorus entering the aquatic environment because agricultural sources are also major dischargers of phosphorus. *Id.*

The IAWA asserts that if a phosphorus effluent standard is adopted, the Board should exempt the standard from the Averaging Rule at 35 Ill. Adm. Code 304.104 (a)(2) and (3). PC 21 at 2. The IAWA asserts that the rule would require the Agency to place a daily maximum limit of 2.0 mg/L in NPDES permits, and that a daily maximum limit is both unnecessary and undesirable. *Id.* The IAWA contends that a daily maximum limit is not needed since phosphorus is not a toxic parameter. The IAWA argues that daily maximum effluent limits are typically related to acute toxicity levels of pollutants, and are designed to prevent short-term discharges of high levels of pollutants that would lead to acute toxicity levels. *Id.*

The IAWA asserts that a daily maximum limit is undesirable as it will discourage the use of biological phosphorus removal technology (BPR), and that the Board should encourage the use of BPR over chemical phosphorus removal (CPR) because CPR is more resource intensive. PC 21 at 2-3. CPR requires the manufacture of a chemical and transportation of the chemical to the treatment facilities. PC 21 at 3. The IAWA notes that the state of Wisconsin has allowed an exemption even to the monthly average limit for plants using BPR. *Id.* The IAWA suggests the following addition to the rule:

- g) (4) Monthly average permit limits established under this subsection (g) are not subject to the averaging rules under subsections (a)(2) and (a)(3) of Section 304.104. PC 21 at 3.

The IAWA believes that the economic impact of the proposed rule has been seriously underestimated. PC 21 at 3. The IAWA asserts that the Village of Beecher is expanding its plant to 1.2 MGD and that the cost of chemical phosphorus removal including a chemical feed building, equipment, electrical, and controls amounts to \$288,000. *Id.* The IAWA contends the cost for the phosphorus portion of the sludge handling is \$178,600, equating to a total capital cost for phosphorus removal of \$466,600 for a 1.2 MGD plant. *Id.* The IAWA asserts that the City of McHenry's South plant is expanding to 1.5 MGD, and that the cost of the chemical feed equipment and building, including electrical and controls, was \$350,000. *Id.*

The IAWA argues that these costs are dramatically different from those referenced by the Board and that the Board's decision in the first-notice opinion and order was erroneously based upon an estimate of the capital cost for phosphorus removal of \$35,000 per MGD capacity. PC 21 at 4-5. The IAWA asserts that the actual costs of complying with the proposed rule will be 4 or 10 times higher than the costs cited in the Board's first-notice opinion and order. *Id.* The IAWA asserts that costs will be ten times higher than \$35,000 for plants in the 1 to 5 MGD range and four times \$35,000 for plants above 30 MGD. *Id.* The IAWA assert that for plants with a capacity of 1 to 2 MGD using CPR, it appears that the 20-year present worth including sludge processing and disposal will be \$600,000 to \$1,000,000. *Id.*

In its additional comments, the IAWA asserts that to the extent the Board relied on costs estimates submitted in the record by the City of Elgin in a facility plan amendment request, the Board is relying on incorrect information. PC 23 at 1. The IAWA submits a letter from Mr. Greg Hergenroeder, the director of the Fox Water Reclamation District in support of this assertion. The IAWA asserts that, as set forth in the letter, the costs contained in the IAWA's

first public comment are more accurate, and that the cost for chemical phosphorus control would be approximately \$3,000,000. PC 23 at 1-2.

The IAWA contends that the information it provided regarding the actual costs for twenty facilities that constructed phosphorus removal in Wisconsin are probably much more accurate than cost estimates contained in the Agency comments. PC 23 at 2. The IAWA asserts that the best evidence is provided by the IAWA and that it is mere speculation that chemical feed facilities can be fit into existing buildings at a reasonable cost. *Id.*

The IAWA asserts that the costs using whatever numbers the Board uses are unreasonable when compared to environmental need or benefit. PC 23 at 2.

Environmental Law and Policy Center, Prairie Rivers Network and Sierra Club

The ELPC asserts that it is true, but irrelevant, that agriculture is a major source of phosphorus, and that the Board has found that phosphorus from point sources is likely more damaging to the environment because it is more biologically available to algae. ELPC Resp. at 1-2, citing Site-Specific Phosphorus Limitation for the City of Shelbyville, R83-12 (Dec. 20, 1984). The ELPC does not object to amending the rules to make it more clear that daily maximum limits are not intended. ELPC Resp. at 2. The ELPC proposes the following language to effectuate that intention:

- k) The averaging rules under subsections (a)(2) and (a)(3) of Section 304.104 do not apply to permit limits established pursuant to Section 304.123(g) or (h). ELPC Resp. at 2.

The ELPC asserts that without a daily maximum it should be possible for most Illinois dischargers to use BPR methods that generate less sludge than CPR methods. ELPC Resp. at 2.

The ELPC contends that if the proposal costs dischargers anything, the costs will be very modest. ELPC Resp. at 2. The ELPC assert that the IAWA comments regarding potential economic costs to Illinois dischargers basically confirm that the costs are modest. *Id.* The ELPC argues that the economic costs of the proposal were probably overstated and certainly were not significantly understated as suggested by the IAWA. ELPC Resp. at 3. The ELPC notes that a limit of 1 mg/L is already required for new or increased discharges by a provision of Illinois' antidegradation regulations. *Id.* The ELPC asserts that under this provision, new or increased pollution may only be allowed to the extent it is necessary and it certainly is not necessary to allow more than 1 mg/L phosphorus to be discharged given that a 1 mg/L phosphorus limit was found economically reasonable by the Board using technology in existence two decades ago. ELPC Resp. at 3, citing Village of Wauconda v. IEPA, PCB 81-017 (May 1, 1981); Amendments to the Water Pollution Regulations, R76-1 (Feb. 15, 1979).

The ELPC asserts that the figures provided by the IAWA are for the present value of the total costs of 20 years of construction and operation of the phosphorus removal equipment. ELPC Resp. at 3. The ELPC contends that no party to this proceeding has denied that phosphorus removal is likely to required well within the 20 year period, and thus even if

phosphorus removal were not already required by the antidegradation rules, the effect of the proposal at issue would be to advance the installation of phosphorus removal equipment at a few plants by a few years and to encourage some municipalities to explore land treatment or other non-discharge methods. ELPC Resp. at 3-4. The ELPC calculates that ignoring antidegradation, the virtual certainty that phosphorus treatment will be required in much less than 20 years, and assuming \$1,000,000 for a 1 MGD will result in a cost of \$5.00 per person per year. ELPC Resp. at 4. The ELPC asserts that the Wisconsin study cited by the IAWA makes clear that costs per person vary greatly and fall rapidly with increased scale. *Id.*

The ELPC asserts that even ignoring the antidegradation requirements, total costs would not be large, and that it is unclear how many new or increased discharges there will be before numeric phosphorus standards are adopted, and what, if any, increased costs will be incurred by new or expanding discharges as a result of having a 1 mg/L phosphorus limit. ELPC Resp. at 4. Further, argues the ELPC, the savings from not having to retrofit plants after numeric standards are adopted and the savings for drinking water plants and other waste users from reduced phosphorus pollution must be set against any increased costs. *Id.* The ELPC asserts that the evidence shows that the net economic effects of reducing phosphorus loadings are strongly positive. ELPC Resp. at 5.

The ELPC concludes that the adoption of the proposal will save money for the state of Illinois by establishing a bright line rule for new or increased discharges during the period in which phosphorus standards are developed. ELPC Resp. at 5. The ELPC posits that the net effect of the adoption of the proposal will be to reduce the number of permit disputes and potential hearings and appeals resulting from such disputes. *Id.*

Agency

The Agency fully supports the Board's decision to proceed to first notice and agrees that the Board's proposed language provides clarity to the proposal without sacrificing the intent or changing the scope of the original proposal. PC 22 at 2. The Agency asserts that, contrary to the assertion of the IAWA, the record contains abundant discussion on issues related to need to control phosphorus loading in Illinois streams, and the availability of technically feasible and economically reasonable phosphorus controls. *Id.*

The Agency, in general, supports the IAWA's concept that a daily maximum limit is not necessary, and believes that the exemption of the proposed phosphorus standard from the Board's averaging rule does not interfere with the original intended purpose of the proposal. PC 22 at 2-3. The Agency asserts that the primary objective of its proposal is to reduce net loading of phosphorus from certain major sources into waters of the state, and as long as there are no changes to the proposed monthly average limit of 1 mg/L, the primary objective will be met. PC 22 at 3. The Agency proposes the following language to meet the IAWA's intended objective:

- k) The averaging rules under subsections (a)(2) and (a)(3) of Section 304.104 do not apply to permit limits established pursuant to Section 304.104(g) or (h). PC 22 at 3.

The Agency argues that its proposed language ensures that the averaging rule exemption is available to permits issued under Section 304.104(g) as well as 304.104(b). PC 22 at 3.

The Agency contends that the costs provided by the IAWA may be applicable to the Village of Beecher and the City of McHenry, but appear to above the expected average costs in general. PC 22 at 3-4. The Agency asserts that when specific high costs are extrapolated on a statewide basis, they would give an unrealistic high estimate of the costs because (1) the costs are based on a strictly CPR or BPR method and the general trend in the industry is to remove most of the phosphorus with BPR methods and any remaining phosphorus with CPR at a minimum costs; (2) The 20% increase in sludge production is excessive, and generally 5 to 10 percent is considered a good number, especially with BPR and CPR are used in combination; (3) the cost of \$288,000 for a chemical feed building may be reasonable for the Village of Beecher, but in most cases the chemical feed may fit into an existing building or a proposed building may be expanded for a more reasonable cost; and (4) many plants built or modified in the last few years considered the possibility of phosphorus removal in the planning phase of the treatment plant and removal at such plants can be accomplished with minimal additional facilities at a modest cost. PC 22 at 4.

DISCUSSION

The Board has held two days of hearings and received substantial testimony and comments on this proposal. The comments and the recent additional language changes suggested by IAWA, the ELPC, and the Agency and the participants have been evaluated, and the second-notice proposal adopted by the Board today reflects the Board's consideration of all the comments and testimony the Board has received. The Board will discuss below the issues raised in the first-notice comments.

Justification for the Proposed Phosphorus Standard

IAWA has reiterated its opposition to this rulemaking as not based on sound science, noting that the Illinois Nutrient Work Group is in the midst of a multi-year undertaking to develop science-based water quality standards. As discussed in the first notice opinion and order, the Illinois Nutrient Work Group has been formed to develop nutrient standards. The Agency expects that a nutrient standards petition will be filed with the Board in early 2007. While the Board recognizes that water quality data is still being gathered for the State's rivers and streams to develop comprehensive nutrient standards, the Board finds nothing in the comments of the IAWA to alter its decision that there is sufficient information in the record to justify reduction of phosphorus loading on the State waters.

While the findings of the nutrient control work group will help the Agency in developing scientifically justifiable nutrient water quality standards, the Board believes that an effluent standard would reduce the phosphorus loading on the State waters. The Board continues to agree with ELPC and the Agency that an effluent standard is mainly intended to reduce significant loading of a pollutant giving consideration to availability of appropriate treatment technology, and associated costs.

The IAWA argues that the proposed rule will have very limited impact on the total amount of phosphorus entering the aquatic environment because agricultural sources are also major dischargers of phosphorus. As before, the Board believes it is prudent to control phosphorus discharge from larger treatment plants given the impact of such discharges on receiving streams. While non-point source contribution (agricultural drainage and runoff) is also a significant source of phosphorus loadings, the Board believes that control of phosphorus from non-point sources is not appropriate in this rulemaking.

Economic Reasonableness

The IAWA believes that the economic impact of the proposed rule has been seriously underestimated, and presents information in its comments to support this contention. The Agency notes that although the costs provided by the IAWA may be applicable to the Village of Beecher and the City of McHenry, they appear to be above the expected average costs in general; while the ELPC argues that the economic costs contained in the proposal were probably overstated and certainly were not significantly understated as suggested by the IAWA.

The Board finds nothing in the information provided by IAWA to alter its decision that the implementation of the proposed phosphorus effluent standard is economically reasonable. In the first-notice opinion, the Board stated that the cost of phosphorus removal varies on a site-specific basis depending upon the plant capacity, type of phosphorus removal process and existing treatment processes. If anything, the information supplied by the IAWA taken in context with the comments of the Agency and the ELPC bolsters that statement.

As stated in the first-notice opinion and order, BPR and CPR are generally used for phosphorus removal. CPR treatment involves the use of aluminum salts, iron salts or lime to precipitate phosphorus from wastewater. The BPR processes involve the application of a combination of anaerobic, anoxic, and aerobic zones in suspended growth biological systems to remove and reduce both phosphorus and nitrogen. Chemical addition is also used to augment the biological treatment processes.

The Board continues to believe that, based on the cost information in the record coupled with the fact that the proposed rule applies to only larger facilities, affected facilities can incorporate the additional cost of phosphorus control in their overall expansion plans with minimal impact. Thus, the Board finds that the implementation of the proposed phosphorus effluent standard to be economically reasonable.

Daily Maximum Limits

Each commenting party agrees that if a phosphorus effluent standard is adopted, the Board should exempt the standard from the averaging rule at 35 Ill. Adm. Code 304.104 (a)(2) and (3). The Board agrees. The exemption of the proposed phosphorus standard from the Board's averaging rule will not interfere with the stated objective of the proposal to reduce net loading of phosphorus from certain major sources into waters of the state. Exempting the phosphorus effluent standard from the averaging rule will in no way change the proposed monthly average limit of 1 mg/L.

Further, as argued by both the IAWA and the ELPC, exempting the phosphorus effluent standard from the averaging rule should encourage the use of BPR methods that may have more beneficial results, including the generation of less sludge.

The Board will use the following language in its second-notice proposal:

k) The averaging rules under subsections (a)(2) and (a)(3) of Section 304.104 do not apply to permit limits established pursuant to Section 304.123(g) or (h).

This language ensures that the exemption from the averaging rule applies to permit limits established pursuant to both subsections 304.123(g) or (h), instead of limiting the exemption to only subsection 304.123(g).

SUMMARY OF SECOND-NOTICE PROPOSAL

The proposal sets forth a phosphorus effluent limit of 1.0 milligram per liter (mg/L) as a monthly average that would apply to new or expanded discharges from treatment works with a design average flow (DAF) over 1.0 million gallons per day receiving municipal or domestic wastewater, or a total phosphorus effluent load of 25 lbs/day or more for treatment works other than those treating municipal or domestic wastewater. However, if the source can demonstrate that phosphorus is not limiting nutrient in the receiving water or that alternative phosphorus effluent limits are warranted by the aquatic environment in the receiving water, the 1.0 mg/L limit would not apply.

Today's proposal differs in only one substantive manner than the proposal as set forth in its entirety in the Board's first notice opinion and order – the addition of proposed language to ensure that the averaging rule exemption is available to permits issued under Section 304.104(g) as well as 304.104(b). This change was supported by IAWA, the ELPC and the Agency in post first-notice filings, and is set forth above.

In response to testimony and questions at hearing, the Agency offered several changes to the original proposal in its post-hearing comments prior to first notice. In the first notice opinion and order, the Board found that the changes to the proposal did not change the scope of the originally proposed language. The proposal that was published in the *Illinois Register* accepted the Agency's changes along with some clarifying changes drafted by Board.

Changes of note that were made in the Board's first-notice opinion and order include: (1) the addition of language in subsections (g)(1) and (g)(2) to clarify that treatment works receiving primarily municipal or domestic wastewater are not covered by subsections (b) through (f) of the proposal; (2) language in subsection (h) that provides that dischargers otherwise subject to the requirement in (g) may choose to demonstrate that the treatment works in question is not causing the phosphorus issues in the receiving waters, and therefore should not be subject to a monthly average permit limit for total phosphorus of 1.0 mg/L; (3) a sentence allowing the Agency to consider site-specific information in deciding whether alternative phosphorus effluent limits are appropriate is also included in the proposal; (4) a change in the renumbered subsection (i) that

provides that dischargers that comply with the requirements of (g) or (h) are not subject to additional phosphorus limitations that may be otherwise required by 35 Ill. Adm. Code 304.105 and 302.203; and (5) a new clause in the renumbered subsection (j) that the new water quality standards are not effective until approved by the United States Environmental Protection Agency (USEPA). Interim Phosphorus Effluent Standard, Proposed 35 Ill. Adm. Code 304.123(g-k), R04-26 (Apr. 7, 2005), slip op. at 20.

In addition, the Board defined what constitutes as a “new” or “expanded” discharge from treatment works at subsections (g)(3), defined a “new” discharge as a discharge from treatment works constructed after the effective date of the proposed regulations, an “expanded” discharge as a discharge from an existing treatment works that would be greater than the flow rates permitted prior to the effective date of the proposed amendments, and deleted subsection (i) of the Agency’s proposal. Interim Phosphorus Effluent Standard, Proposed 35 Ill. Adm. Code 304.123(g-k), R04-26 (Apr. 7, 2005), slip op. at 20.

The Board has made additional non-substantive changes to the rule, but will not summarize or delineate the entirety of the rule or the changes made by the Board. The Board’s order reflects the Board’s changes.

CONCLUSION

Based on the record developed to date in this matter, the Board finds that adoption of the Agency’s proposal is warranted. The Board proposes this rulemaking for second-notice review by Joint Committee on Administrative Rules (JCAR).

ORDER

The Board directs the Clerk to cause the filing of the following rule with the Joint Committee on Administrative Rules for its second-notice review.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE C: WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 304
EFFLUENT STANDARDS

SUBPART A: GENERAL EFFLUENT STANDARDS

Section	
304.101	Preamble
304.102	Dilution
304.103	Background Concentrations
304.104	Averaging
304.105	Violation of Water Quality Standards

304.106	Offensive Discharges
304.120	Deoxygenating Wastes
304.121	Bacteria
304.122	Total Ammonia Nitrogen (as N: STORET number 00610)
304.123	Phosphorus (STORET number 00665)
304.124	Additional Contaminants
304.125	pH
304.126	Mercury
304.140	Delays in Upgrading (Repealed)
304.141	NPDES Effluent Standards
304.142	New Source Performance Standards (Repealed)

SUBPART B: SITE SPECIFIC RULES AND EXCEPTIONS NOT OF GENERAL APPLICABILITY

Section	
304.201	Wastewater Treatment Plant Discharges of the Metropolitan Water Reclamation District of Greater Chicago
304.202	Chlor-alkali Mercury Discharges in St. Clair County
304.203	Copper Discharges by Olin Corporation
304.204	Schoenberger Creek: Groundwater Discharges
304.205	John Deere Foundry Discharges
304.206	Alton Water Company Treatment Plant Discharges
304.207	Galesburg Sanitary District Deoxygenating Wastes Discharges
304.208	City of Lockport Treatment Plant Discharges
304.209	Wood River Station Total Suspended Solids Discharges
304.210	Alton Wastewater Treatment Plant Discharges
304.211	Discharges From Borden Chemicals and Plastics Operating Limited Partnership Into an Unnamed Tributary of Long Point Slough
304.212	Sanitary District of Decatur Discharges
304.213	PDV Midwest Refining, L.L.C. Refinery Ammonia Discharge
304.214	Mobil Oil Refinery Ammonia Discharge
304.215	City of Tuscola Wastewater Treatment Facility Discharges
304.216	Newton Station Suspended Solids Discharges
304.218	City of Pana Phosphorus Discharge
304.219	North Shore Sanitary District Phosphorus Discharges
304.220	East St. Louis Treatment Facility, Illinois-American Water Company
304.221	Ringwood Drive Manufacturing Facility in McHenry County
304.222	Intermittent Discharge of TRC

SUBPART C: TEMPORARY EFFLUENT STANDARDS

Section	
304.301	Exception for Ammonia Nitrogen Water Quality Violations (Repealed)
304.302	City of Joliet East Side Wastewater Treatment Plant
304.303	Amerock Corporation, Rockford Facility

Appendix A References to Previous Rules

AUTHORITY: Implementing Section 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13 and 27].

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 30, p. 343, effective July 27, 1978; amended at 2 Ill. Reg. 44, p. 151, effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; amended at 4 Ill. Reg. 20, p. 53 effective May 7, 1980; amended at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; amended at 7 Ill. Reg. 3020, effective March 4, 1983; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended at 7 Ill. Reg. 14515, effective October 14, 1983; amended at 7 Ill. Reg. 14910, effective November 14, 1983; amended at 8 Ill. Reg. 1600, effective January 18, 1984; amended at 8 Ill. Reg. 3687, effective March 14, 1984; amended at 8 Ill. Reg. 8237, effective June 8, 1984; amended at 9 Ill. Reg. 1379, effective January 21, 1985; amended at 9 Ill. Reg. 4510, effective March 22, 1985; peremptory amendment at 10 Ill. Reg. 456, effective December 23, 1985; amended at 11 Ill. Reg. 3117, effective January 28, 1987; amended in R84-13 at 11 Ill. Reg. 7291 effective April 3, 1987; amended in R86-17(A) at 11 Ill. Reg. 14748, effective August 24, 1987; amended in R84-16 at 12 Ill. Reg. 2445, effective January 15, 1988; amended in R83-23 at 12 Ill. Reg. 8658, effective May 10, 1988; amended in R87-27 at 12 Ill. Reg. 9905, effective May 27, 1988; amended in R82-7 at 12 Ill. Reg. 10712, effective June 9, 1988; amended in R85-29 at 12 Ill. Reg. 12064, effective July 12, 1988; amended in R87-22 at 12 Ill. Reg. 13966, effective August 23, 1988; amended in R86-3 at 12 Ill. Reg. 20126, effective November 16, 1988; amended in R84-20 at 13 Ill. Reg. 851, effective January 9, 1989; amended in R85-11 at 13 Ill. Reg. 2060, effective February 6, 1989; amended in R88-1 at 13 Ill. Reg. 5976, effective April 18, 1989; amended in R86-17(B) at 13 Ill. Reg. 7754, effective May 4, 1989; amended in R88-22 at 13 Ill. Reg. 8880, effective May 26, 1989; amended in R87-6 at 14 Ill. Reg. 6777, effective April 24, 1990; amended in R87-36 at 14 Ill. Reg. 9437, effective May 31, 1990; amended in R88-21(B) at 14 Ill. Reg. 12538, effective July 18, 1990; amended in R84-44 at 14 Ill. Reg. 20719, effective December 11, 1990; amended in R86-14 at 15 Ill. Reg. 241, effective December 18, 1990; amended in R93-8 at 18 Ill. Reg. 267, effective December 23, 1993; amended in R87-33 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R95-14 at 20 Ill. Reg. 3528, effective February 8, 1996; amended in R94-1(B) at 21 Ill. Reg. 364, effective December 23, 1996; expedited correction in R94-1(B) at 21 Ill. Reg. 6269, effective December 23, 1996; amended in R97-25 at 22 Ill. Reg. 1351, effective December 24, 1997; amended in R97-28 at 23 Ill. Reg. 3512, effective February 3, 1998; amended in R98-14 at 23 Ill. Reg. 687, effective December 31, 1998; amended in R02-19 at 26 Ill. Reg. 16948, effective November 8, 2002; amended in R02-11 at 27 Ill. Reg. 194, effective December 20, 2002; amended in R04-26 at 29 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL EFFLUENT STANDARDS

Section 304.123 Phosphorus (STORET number 00665)

- a) No effluent discharge within the Lake Michigan Basin shall contain more than 1.0 mg/L of phosphorus as P.
- b) No effluent from any source which discharges to a lake or reservoir with a surface area of 8.1 hectares (20 acres) or more, or to any tributary of such a lake or reservoir whose untreated waste load is 2500 or more population equivalents, and which does not utilize a third-stage lagoon treatment system as specified in subsections 304.120(a) and (c), shall exceed 1.0 mg/L of phosphorus as P; however, this subsection shall not apply where the lake or reservoir, including any side channel reservoir or other portion thereof, on an annual basis exhibits a mean hydraulic retention time of 0.05 years (18 days) or less.
- c) Pursuant to Section 28.1 of the Environmental Protection Act (Act) [415 ILCS 5/28.1], the owner or operator of any source subject to subsection (b) of this Section may apply for an adjusted standard. In addition to the proofs specified in Section 28.1(c) of the Act 415 ILCS 5/28.1(c), such application shall, at a minimum, contain adequate proof that the effluent resulting from grant of the adjusted standard will not contribute to cultural eutrophication, unnatural plant or algal growth or dissolved oxygen deficiencies in the receiving lake or reservoir. For purposes of this subsection (c), such effluent shall be deemed to contribute to such conditions if phosphorus is the limiting nutrient for biological growth in the lake or reservoir, taking into account the lake or reservoir limnology, morphological, physical and chemical characteristics, and sediment transport. However, if the effluent discharge enters a tributary at least 40.25 kilometers (25 miles) upstream of the point at which the tributary enters the lake or reservoir at normal pool level, such effluent shall not be deemed to contribute to such conditions if the receiving lake or reservoir is eutrophic and phosphorus from internal regeneration is not a limiting nutrient.
- d) For the purposes of this Section the term "lake or reservoir" shall not include low level pools constructed in free flowing streams or any body of water which is an integral part of an operation which includes the application of sludge on land.
- e) Compliance with the limitations of subsection (b) of this Section will be achieved by the following dates:
 - 1) Sources with the present capability to comply will do so on the effective date of this Section;
 - 2) All other sources will comply as required by NPDES permit.
- f) For purposes of this Section, the following terms will have the meanings specified:
 - 1) "Dissolved oxygen deficiencies" means the occurrence of a violation of the dissolved oxygen standard applicable to a lake or reservoir.

(BOARD NOTE: Dissolved Oxygen standards for general use waters are set forth at 35 Ill. Adm. Code 302.206; Dissolved Oxygen standards for secondary contact or indigenous aquatic life waters are set forth at 35 Ill. Adm. Code 302.405.)

- 2) "Euphotic zone" means that region of a lake or reservoir extending from the water surface to a depth at which 99% of the surface light has disappeared or such lesser depth below which photosynthesis does not occur.
- 3) "Eutrophic" means a condition of a lake or reservoir in which there is an abundant supply of nutrients, including phosphorus, accounting for a high concentration of biomass.
- 4) "Eutrophication" means the process of increasing or accumulating plant nutrients in the water of a lake or reservoir. Cultural eutrophication is eutrophication attributable to human activities.
- 5) "Internal regeneration" means the process of conversion of phosphorus or other nutrients in sediments of a lake or reservoir from the particulate to the dissolved form and the subsequent return of such dissolved forms to the euphotic zone.
- 6) "Limiting nutrient" means a substance which is limiting to biological growth in a lake or reservoir due to its short supply or unavailability with respect to other substances necessary for the growth of organisms.
- 7) "Unnatural plant or algal growth" means the occurrence of a violation of the unnatural sludge standard applicable to a lake or reservoir with respect to such growth.

(BOARD NOTE: Unnatural sludge standards for general use waters are set forth at 35 Ill. Adm. Code 302.203; unnatural sludge standards for secondary and indigenous aquatic life waters are set forth at 35 Ill. Adm. Code 302.403.)

g) Except as provided in subsection (h) of this Section, any new or expanded discharges into General Use waters from the following treatment works not covered by subsections (b) through (f) of this Section, are subject to monthly average permit limits for total phosphorus of 1 mg/L:

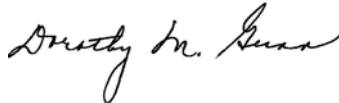
- 1) Treatment works with a Design Average Flow of 1.0 million gallons per day or more receiving primarily municipal or domestic wastewater; or

- 2) Any treatment works, other than those treating primarily municipal or domestic wastewater, with a total phosphorus effluent load of 25 pounds per day or more.
- 3) For purposes of this subsection:
 - i) A new discharge means a discharge from a treatment works constructed after the effective date of this Section.
 - ii) An expanded discharge means a discharge from any existing treatment works that would be greater than the flowrates permitted prior to the effective date of this Section.
- h) Discharges qualifying under subsections (g)(1) and (g)(2) of this Section may not be subject to the requirements of subsection (g) of this Section provided the discharger demonstrate that phosphorus from treatment works is not the limiting nutrient in the receiving water. The Agency may impose alternative phosphorus effluent limits where the supporting information shows that alternative limits are warranted by the aquatic environment in the receiving stream.
- i) No additional phosphorus limitations are required pursuant to Sections 304.105 and 302.203 for the discharges that comply with the requirements of (g) or (h) of this Section.
- j) The provisions of subsections (g), (h), and (i) of this Section apply until such time as the Board adopts a numeric water quality standard for phosphorus and the adopted standard is approved by the U.S. EPA.
- k) The averaging rules under subsections (a)(2) and (a)(3) of Section 304.104 do not apply to permit limits established pursuant to subsection (g) or (h) of this Section.

(Source: Amended in _____ at _____ Ill. Reg. _____, effective _____, 2005.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on September 1, 2005, by a vote of 5-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

ILLINOIS POLLUTION CONTROL BOARD
January 19, 2006

IN THE MATTER OF:)
)
PROPOSED 35 ILL. ADM. CODE) R04-26
304.123(g), 304.123(h), 304.123(i), 304.123(j),) (Rulemaking - Water)
and 304.123(k))

Adopted Rule. Final Notice.

OPINION AND ORDER OF THE BOARD (by T.E. Johnson):

Today the Board adopts proposed phosphorus effluent standard regulations. These regulations set forth a phosphorus effluent limit of 1.0 milligram per liter (mg/L) as a monthly average that would apply to new or expanded discharges from treatment works with a design average flow (DAF) over 1.0 million gallons per day receiving municipal or domestic wastewater, or a total phosphorus effluent load of 25 lbs/day or more for treatment works other than those treating municipal or domestic wastewater.

The rules adopted here are substantively unchanged from those adopted in the Board's first-notice and second-notice opinion and orders. On September 15, 2005, the Board adopted the rule for second notice. The Board directed that the rule be submitted to the Joint Committee on Administrative Rules (JCAR) for second-notice review. JCAR considered the rule on November 15, 2005, and again on December 13, 2005. JCAR issued a certification and statement of objection to the rule on December 13, 2005. The following opinion will explain the proposal background, summarize the procedural history, discuss the economic reasonableness and technical feasibility of the rule, and respond to JCAR's objection.

BACKGROUND

On May 14, 2004, the Board received a rulemaking proposal from the Illinois Environmental Protection Agency (Agency). The Agency seeks to set an interim phosphorus effluent standard by adding five new subsections (g-k) to existing 35 Ill. Adm. Code 304.123. A motion for acceptance accompanied the proposal.

In its statement of reasons, the Agency asserts that it is in the process of developing the State numeric nutrient standards pursuant to its triennial water quality standards review. Pet. at 7. The Agency expects to file a nutrient standards petition with the Board in early 2007. Pet. at 8. In the interim, the Agency is proposing this effluent standard for phosphorus to limit higher concentrations of phosphorus that may result in detrimental levels of plant and algae growth. *Id.* The Agency requests that the interim effluent standard apply until the Board adopts a numeric water quality standard for phosphorus.

Two hearings were held before Board Hearing Officer John Knittle. The first hearing was held on August 30, 2004 (Tr.1), in Chicago. The second hearing was held on October 25,

2004, in Springfield (Tr.2). During those hearings the Board heard testimony from a number of witnesses. The Board received 17 public comments prior to proceeding to first notice.

On April 7, 2005, the Board found that the proposal was technically feasible and economically reasonable. The Board proceeded to first notice, and noted that additional comments on the proposal would be accepted.

The proposed amendments were published in the *Illinois Register* on May 6, 2005. *See* Ill. Reg. Vol. 29 Issue 19, p. 6200. The Illinois Association of Wastewater Agencies (IAWA) filed a public comment on June 20, 2005. On July 1, 2005, the Environmental Law & Policy Center, Prairie Rivers Network and Sierra Club (collectively ELPC) filed a response to the comments of IAWA. The Agency filed a comment on July 26, 2005.

In its second-notice opinion and order issued on September 15, 2005, the Board found that adoption of the Agency's proposed rule was warranted, and proposed the rulemaking for second-notice review by the JCAR.

JCAR REVIEW

JCAR considered the second-notice proposal at its November 15, 2005 meeting and voted to extend the second-notice period for an additional 45 days. JCAR considered the second-notice proposal again at its December 13, 2005 meeting and issued a formal certification and statement of objection to the proposed rulemaking. The complete text of the objection follows:

At its meeting on December 13, 2005, the Joint Committee on Administrative Rules objected to the Pollution Control Board's rulemaking titled Effluent Standards (35 Ill. Adm. Code 304; 25 Ill. Reg. 6200) because the rulemaking imposes an undue economic and regulatory burden on the affected wastewater treatment facilities by requiring those facilities to meet interim standards for phosphorus discharges. The EPA has committed to the USEPA to have numeric standards in place for nutrients, but not until in 2008. This additional time should allow affected entities more time to prepare for any costs associated with these standards.

Failure of the agency to respond within 90 days after receipt of the State of Objection shall constitute withdrawal of this proposed rulemaking. The agency's response will be placed on the JCAR agenda for further consideration. *See* Statement of Objection to Proposed Rulemaking, December 13, 2005.

The second-notice period commenced on October 7, 2005, and ended on December 17, 2005, when the Board received notification from JCAR that an objection was issued. *See* 5 ILCS 100/5-40(c) (2004); 35 Ill. Adm. Code 102.606. Other than the non-substantive comments suggested by JCAR, the Board received no comments during the second-notice period.

DISCUSSION

At second notice, the Board found that adoption of the proposal is warranted, and that the proposal was economically reasonable and technically feasible. JCAR stated that they objected to the proposal because the rulemaking imposes an undue economic and regulatory burden on the affected wastewater treatment facilities by requiring those facilities to meet interim standards for phosphorus discharges.

JCAR is a legislative oversight committee that may examine any proposed rule to determine whether the proposed rule is within the statutory authority upon which it is based; whether the rule is in proper form; and whether the notice that was given before its adoption was sufficient to give adequate notice of the purpose and effect of the rule. In addition, JCAR may consider whether the agency has considered alternatives to the rule that are consistent with the stated objects of both the applicable statutes and regulations and whether the rule is designed to minimize economic impact on small businesses. 5 ILCS 100/5-110(a) (2004).

If JCAR certifies its objections to the issuing agency within the second-notice period, that agency must either modify the proposed rule to meet JCAR's objections, withdraw the proposed rule in its entirety, or refuse to modify or withdraw the proposed rule. 5 ILCS 100/5-110(c) (2004).

If an agency refuses to modify or withdraw a proposed rule to remedy an objection by JCAR, that agency must notify JCAR in writing of its refusal and submit a notice of refusal to the Secretary of State. The notice must be published in the next available issue of the *Illinois Register*. If JCAR decides to recommend legislative action in response to an agency refusal, the JCAR "shall have drafted and introduced into either house of the General Assembly appropriate legislation to implement the recommendations of the Joint Committee." 5 ILCS 100/5-110(g) (2004).

The Board respectfully disagrees with JCAR's conclusions. The Board continues to believe that, based on the cost information in the record coupled with the fact that the proposed rule applies to only new or expanding larger facilities, affected facilities can incorporate the additional cost of phosphorus control in their overall expansion plans with an economically reasonable impact. Once again, it should be stressed that the proposed limit would apply to only new or expanded discharges from wastewater treatment plants with either a design average flow over 1.0 million gallons per day receiving municipal or domestic waste water, or a total phosphorus effluent load of 25 pounds per day or more for treatment works other than those treating municipal or domestic wastewater. Further, the 1.0 mg/L limit would not apply to a source that can demonstrate that phosphorus is not the limiting nutrient in the receiving water or that alternative phosphorus effluent limits are warranted by the aquatic environment in the receiving water. Thus, the Board finds that the implementation of the proposed phosphorus effluent standard will not impose an undue economic or regulatory burden.

Further, as the Board explained at second notice, while the findings of the nutrient control work group referenced by JCAR will help the Agency in developing scientifically justifiable

water quality standards for nutrients, effluent standards are somewhat different. An effluent standard is mainly intended to limit significant loading of a pollutant to a receiving stream giving consideration to availability of appropriate treatment technology and associated costs. While there is currently a water quality standard for phosphorous that applies to some waters of the State, the impact of the new effluent standard for phosphorus is designed to limit the phosphorus loading on the State waters.

As stated in the second-notice order, the Board believes it is prudent to control phosphorus discharge from larger treatment plants given the impact of such discharges on receiving streams. While non-point source contribution (agricultural drainage and runoff) is also a significant source of phosphorus loadings, the Board believes that control of phosphorus from non-point sources is not appropriate in this rulemaking.

The Board finds nothing in JCAR's objection or in a review of the record to alter its decision that the implementation of the proposed phosphorus effluent standard is economically reasonable and technically feasible. As noted, the Board did receive six non-substantive comments from JCAR. The Board has incorporated the suggested changes into the adopted proposal.

SUMMARY OF THE ADOPTED PROPOSAL

The adopted proposal sets forth a phosphorus effluent limit of 1.0 milligram per liter (mg/L) as a monthly average that would apply to new or expanded discharges from treatment works with a design average flow (DAF) over 1.0 million gallons per day receiving municipal or domestic wastewater, or a total phosphorus effluent load of 25 lbs/day or more for treatment works other than those treating municipal or domestic wastewater. However, if the source can demonstrate that phosphorus is not limiting nutrient in the receiving water or that alternative phosphorus effluent limits are warranted by the aquatic environment in the receiving water, the 1.0 mg/L limit would not apply.

Today's proposal differs in only one substantive manner than the proposal as set forth in its entirety in the Board's first-notice opinion and order – the addition of proposed language to ensure that the averaging rule exemption is available to permits issued under Section 304.104(g) as well as 304.104(b). This change was supported by IAWA, the EPLC and the Agency in post first-notice filings.

In response to testimony and questions at hearing, the Agency offered several changes to the original proposal in its post-hearing comments prior to first notice. In the first-notice opinion and order, the Board found that the changes to the proposal did not change the scope of the originally proposed language. The proposal that was published in the *Illinois Register* accepted the Agency's changes along with some clarifying changes drafted by Board.

Changes of note that were made in the Board's first-notice opinion and order include: (1) the addition of language in subsections (g)(1) and (g)(2) to clarify that treatment works receiving primarily municipal or domestic wastewater are not covered by subsections (b) through (f) of the proposal; (2) language in subsection (h) that provides that dischargers otherwise subject to the

requirement in (g) may choose to demonstrate that the treatment works in question is not causing the phosphorus issues in the receiving waters, and therefore should not be subject to a monthly average permit limit for total phosphorus of 1.0 mg/L; (3) a sentence allowing the Agency to consider site-specific information in deciding whether alternative phosphorus effluent limits are appropriate; (4) a change in the renumbered subsection (i) that provides that dischargers that comply with the requirements of (g) or (h) are not subject to additional phosphorus limitations that may be otherwise required by 35 Ill. Adm. Code 304.105 and 302.203; and (5) a new clause in the renumbered subsection (j) that the new water quality standards are not effective until approved by the United States Environmental Protection Agency (USEPA). Interim Phosphorus Effluent Standard, Proposed 35 Ill. Adm. Code 304.123(g-k), R04-26 slip op. at 20 (Apr. 7, 2005).

In addition, the Board defined what constitutes as a “new” or “expanded” discharge from treatment works at subsection (g)(3). A “new” discharge is defined as a discharge from treatment works constructed after the effective date of the proposed regulations, and an “expanded” discharge is defined as a discharge from an existing treatment works that would be greater than the flow rates permitted prior to the effective date of the proposed amendments. The Board deleted subsection (i) of the Agency’s proposal. Interim Phosphorus Effluent Standard, Proposed 35 Ill. Adm. Code 304.123(g-k), R04-26 slip op. at 20. (Apr. 7, 2005).

The Board has made additional non-substantive changes to the rule as suggested by JCAR, but will not summarize or delineate the entirety of the rule or the changes made by the Board. The Board’s order reflects the Board’s changes.

CONCLUSION

Based on the record before it, the Board finds that adoption of the Agency’s proposal is warranted.

ORDER

The Board directs the Clerk to file the following adopted rule with the Secretary of State for publication in the *Illinois Register* for final notice and adoption in the *Illinois Administrative Code*.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE C: WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 304
EFFLUENT STANDARDS

SUBPART A: GENERAL EFFLUENT STANDARDS

Section
304.101

Preamble

304.102	Dilution
304.103	Background Concentrations
304.104	Averaging
304.105	Violation of Water Quality Standards
304.106	Offensive Discharges
304.120	Deoxygenating Wastes
304.121	Bacteria
304.122	Total Ammonia Nitrogen (as N: STORET number 00610)
304.123	Phosphorus (STORET number 00665)
304.124	Additional Contaminants
304.125	pH
304.126	Mercury
304.140	Delays in Upgrading (Repealed)
304.141	NPDES Effluent Standards
304.142	New Source Performance Standards (Repealed)

SUBPART B: SITE SPECIFIC RULES AND EXCEPTIONS NOT OF GENERAL APPLICABILITY

Section	
304.201	Wastewater Treatment Plant Discharges of the Metropolitan Water Reclamation District of Greater Chicago
304.202	Chlor-alkali Mercury Discharges in St. Clair County
304.203	Copper Discharges by Olin Corporation
304.204	Schoenberger Creek: Groundwater Discharges
304.205	John Deere Foundry Discharges
304.206	Alton Water Company Treatment Plant Discharges
304.207	Galesburg Sanitary District Deoxygenating Wastes Discharges
304.208	City of Lockport Treatment Plant Discharges
304.209	Wood River Station Total Suspended Solids Discharges
304.210	Alton Wastewater Treatment Plant Discharges
304.211	Discharges From Borden Chemicals and Plastics Operating Limited Partnership Into an Unnamed Tributary of Long Point Slough
304.212	Sanitary District of Decatur Discharges
304.213	PDV Midwest Refining, L.L.C. Refinery Ammonia Discharge
304.214	Mobil Oil Refinery Ammonia Discharge
304.215	City of Tuscola Wastewater Treatment Facility Discharges
304.216	Newton Station Suspended Solids Discharges
304.218	City of Pana Phosphorus Discharge
304.219	North Shore Sanitary District Phosphorus Discharges
304.220	East St. Louis Treatment Facility, Illinois-American Water Company
304.221	Ringwood Drive Manufacturing Facility in McHenry County
304.222	Intermittent Discharge of TRC

SUBPART C: TEMPORARY EFFLUENT STANDARDS

Section

- 304.301 Exception for Ammonia Nitrogen Water Quality Violations (Repealed)
304.302 City of Joliet East Side Wastewater Treatment Plant
304.303 Amerock Corporation, Rockford Facility

Appendix A References to Previous Rules

AUTHORITY: Implementing Section 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13 and 27].

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 30, p. 343, effective July 27, 1978; amended at 2 Ill. Reg. 44, p. 151, effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; amended at 4 Ill. Reg. 20, p. 53, effective May 7, 1980; amended at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; amended at 7 Ill. Reg. 3020, effective March 4, 1983; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended at 7 Ill. Reg. 14515, effective October 14, 1983; amended at 7 Ill. Reg. 14910, effective November 14, 1983; amended at 8 Ill. Reg. 1600, effective January 18, 1984; amended at 8 Ill. Reg. 3687, effective March 14, 1984; amended at 8 Ill. Reg. 8237, effective June 8, 1984; amended at 9 Ill. Reg. 1379, effective January 21, 1985; amended at 9 Ill. Reg. 4510, effective March 22, 1985; peremptory amendment at 10 Ill. Reg. 456, effective December 23, 1985; amended at 11 Ill. Reg. 3117, effective January 28, 1987; amended in R84-13 at 11 Ill. Reg. 7291, effective April 3, 1987; amended in R86-17(A) at 11 Ill. Reg. 14748, effective August 24, 1987; amended in R84-16 at 12 Ill. Reg. 2445, effective January 15, 1988; amended in R83-23 at 12 Ill. Reg. 8658, effective May 10, 1988; amended in R87-27 at 12 Ill. Reg. 9905, effective May 27, 1988; amended in R82-7 at 12 Ill. Reg. 10712, effective June 9, 1988; amended in R85-29 at 12 Ill. Reg. 12064, effective July 12, 1988; amended in R87-22 at 12 Ill. Reg. 13966, effective August 23, 1988; amended in R86-3 at 12 Ill. Reg. 20126, effective November 16, 1988; amended in R84-20 at 13 Ill. Reg. 851, effective January 9, 1989; amended in R85-11 at 13 Ill. Reg. 2060, effective February 6, 1989; amended in R88-1 at 13 Ill. Reg. 5976, effective April 18, 1989; amended in R86-17(B) at 13 Ill. Reg. 7754, effective May 4, 1989; amended in R88-22 at 13 Ill. Reg. 8880, effective May 26, 1989; amended in R87-6 at 14 Ill. Reg. 6777, effective April 24, 1990; amended in R87-36 at 14 Ill. Reg. 9437, effective May 31, 1990; amended in R88-21(B) at 14 Ill. Reg. 12538, effective July 18, 1990; amended in R84-44 at 14 Ill. Reg. 20719, effective December 11, 1990; amended in R86-14 at 15 Ill. Reg. 241, effective December 18, 1990; amended in R93-8 at 18 Ill. Reg. 267, effective December 23, 1993; amended in R87-33 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R95-14 at 20 Ill. Reg. 3528, effective February 8, 1996; amended in R94-1(B) at 21 Ill. Reg. 364, effective December 23, 1996; expedited correction in R94-1(B) at 21 Ill. Reg. 6269, effective December 23, 1996; amended in R97-25 at 22 Ill. Reg. 1351, effective December 24, 1997; amended in R97-28 at 23 Ill. Reg. 3512, effective February 3, 1998; amended in R98-14 at 23 Ill. Reg. 687, effective December 31, 1998; amended in R02-19 at 26 Ill. Reg. 16948, effective November 8, 2002; amended in R02-11 at 27 Ill. Reg. 194, effective December 20, 2002; amended in R04-26 at 30 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL EFFLUENT STANDARDS

Section 304.123 Phosphorus (STORET number 00665)

- a) No effluent discharge within the Lake Michigan Basin shall contain more than 1.0 mg/l of phosphorus as P.
- b) No effluent from any source which discharges to a lake or reservoir with a surface area of 8.1 hectares (20 acres) or more, or to any tributary of such a lake or reservoir whose untreated waste load is 2500 or more population equivalents, and which does not utilize a third-stage lagoon treatment system as specified in subsections 304.120(a) and (c), shall exceed 1.0 mg/l of phosphorus as P; however, this subsection shall not apply where the lake or reservoir, including any side channel reservoir or other portion thereof, on an annual basis exhibits a mean hydraulic retention time of 0.05 years (18 days) or less.
- c) Pursuant to Section 28.1 of the Environmental Protection Act (Act) [415 ILCS 5/28.1], the owner or operator of any source subject to subsection (b) of this Section may apply for an adjusted standard. In addition to the proofs specified in Section 28.1(c) of the Act 415 ILCS 5/28.1(c), such application shall, at a minimum, contain adequate proof that the effluent resulting from grant of the adjusted standard will not contribute to cultural eutrophication, unnatural plant or algal growth or dissolved oxygen deficiencies in the receiving lake or reservoir. For purposes of this subsection (c), such effluent shall be deemed to contribute to such conditions if phosphorus is the limiting nutrient for biological growth in the lake or reservoir, taking into account the lake or reservoir limnology, morphological, physical and chemical characteristics, and sediment transport. However, if the effluent discharge enters a tributary at least 40.25 kilometers (25 miles) upstream of the point at which the tributary enters the lake or reservoir at normal pool level, such effluent shall not be deemed to contribute to such conditions if the receiving lake or reservoir is eutrophic and phosphorus from internal regeneration is not a limiting nutrient.
- d) For the purposes of this Section the term "lake or reservoir" shall not include low level pools constructed in free flowing streams or any body of water which is an integral part of an operation which includes the application of sludge on land.
- e) Compliance with the limitations of subsection (b) of this Section shall be achieved by the following dates:
 - 1) Sources with the present capability to comply shall do so on the effective date of this Section;
 - 2) All other sources shall comply as required by NPDES permit.

f) For purposes of this Section, the following terms shall have the meanings specified:

- 1) "Dissolved oxygen deficiencies" means the occurrence of a violation of the dissolved oxygen standard applicable to a lake or reservoir.

(BOARD NOTE: Dissolved Oxygen standards for general use waters are set forth at 35 Ill. Adm. Code 302.206; Dissolved Oxygen standards for secondary contact or indigenous aquatic life waters are set forth at 35 Ill. Adm. Code 302.405.)

- 2) "Euphotic zone" means that region of a lake or reservoir extending from the water surface to a depth at which 99% of the surface light has disappeared or such lesser depth below which photosynthesis does not occur.

- 3) "Eutrophic" means a condition of a lake or reservoir in which there is an abundant supply of nutrients, including phosphorus, accounting for a high concentration of biomass.

- 4) "Eutrophication" means the process of increasing or accumulating plant nutrients in the water of a lake or reservoir. Cultural eutrophication is eutrophication attributable to human activities.

- 5) "Internal regeneration" means the process of conversion of phosphorus or other nutrients in sediments of a lake or reservoir from the particulate to the dissolved form and the subsequent return of such dissolved forms to the euphotic zone.

- 6) "Limiting nutrient" means a substance which is limiting to biological growth in a lake or reservoir due to its short supply or unavailability with respect to other substances necessary for the growth of organisms.

- 7) "Unnatural plant or algal growth" means the occurrence of a violation of the unnatural sludge standard applicable to a lake or reservoir with respect to such growth.

(BOARD NOTE: Unnatural sludge standards for general use waters are set forth at 35 Ill. Adm. Code 302.203; unnatural sludge standards for secondary and indigenous aquatic life waters are set forth at 35 Ill. Adm. Code 302.403.)

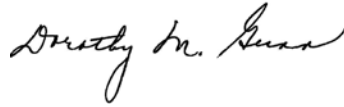
g) Except as provided in subsection (h) of this Section, any new or expanded discharges into General Use waters from the following treatment works not covered by subsections (b) through (f) of this Section, are subject to monthly average permit limits for total phosphorus of 1 mg/ l:

- 1) Treatment works with a Design Average Flow of 1.0 million gallons per day or more receiving primarily municipal or domestic wastewater; or
- 2) Any treatment works, other than those treating primarily municipal or domestic wastewater, with a total phosphorus effluent load of 25 pounds per day or more.
- 3) For purposes of this subsection:
 - A) A new discharge means a discharge from a treatment works constructed after December 15, 2005.
 - B) An expanded discharge means a discharge from any existing treatment works that would be greater than the flowrates permitted prior to December 15, 2005.
- h) Discharges qualifying under subsections (g)(1) and (g)(2) of this Section may not be subject to the requirements of subsection (g) of this Section provided the discharger demonstrate that phosphorus from treatment works is not the limiting nutrient in the receiving water. The Agency may impose alternative phosphorus effluent limits where the supporting information shows that alternative limits are warranted by the aquatic environment in the receiving stream.
- i) No additional phosphorus limitations are required pursuant to Sections 304.105 and 35 Ill. Adm. Code 302.203 for the discharges that comply with the requirements of subsection (g) or (h) of this Section.
- j) The provisions of subsections (g), (h), and (i) of this Section apply until such time as the Board adopts a numeric water quality standard for phosphorus and the adopted standard is approved by the U.S. EPA.
- k) The averaging rules under subsections (a)(2) and (a)(3) of Section 304.104 do not apply to permit limits established pursuant to subsection (g) or (h) of this Section.

(Source: Amended at 30 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on January 19, 2006, by a vote of 4-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

Attachment 1

Outfall 001 Treated Effluent *E. coli* Compliance Elements and Schedule

Unless otherwise referenced in a division administrative action, the provisions presented in this attachment shall become a permit condition on its effective date.

To demonstrate compliance with the State of Tennessee's water quality standards, the permittee shall proceed with the program presented in this attachment to achieve the Outfall 001 treated effluent *E. coli* limits presented in Section 1.1. The permittee shall comply with the Outfall 001 treated effluent *E. coli* limits as-soon-as possible, and at a maximum such compliance shall occur within the time allocations presented subsequently, and concurrently provide for receiving stream recreational users human health protection measures.

- Recreational Users Human Health Protection Measures
- Treated Effluent Disinfection Alternatives Investigations/Reporting
- Disinfection Facilities Design/Construction/Startup
- Integral Evaluations If Chlorination Disinfection System Selected

Recreational Users Human Health Protection Measures

The permittee shall implement human health protective measures for recreational activities (e.g., water contact) since the permittee's Outfall 001 non-disinfected effluent discharge plume, as transported/dispersed within the Mississippi River, has the potential to cause the instream *E. coli* levels to exceed 126 cfu/100 ml as a geometric mean on a monthly basis or 487 cfu/100 ml daily maximum limits. As such, within 30 days from the permit's effective date, the permittee shall install signs at the Outfall 001 discharge area within the Mississippi River. Signs shall also be posted at the confluence with the Wolf River and at 3 locations along the Mud Island shoreline (specifically at the northern point, the Boat Ramp and at a southern site based on the extent of foam associated with Outfall 001 discharge over the past two years. These signs shall, at a minimum schematically show the dangers associated with treated non-disinfected wastewater, include a written hazards narrative, show the likely Outfall 001 discharge plume location (with foam/color references), and no contact warning. The signs shall be visible from the Mississippi River, and also be seen from the receiving stream's bank. The sign at the confluence with the Wolf River shall be located a point which the permittee expects to reasonably position the Outfall 001 being transported upstream within the Wolf River by the Mississippi River flow. The permittee must submit the signage information to the division for prior approval before installing the signs.

When the permittee has installed/operated the Outfall 001 treated effluent disinfection system and achieves the *E. coli* limits specified in Section 1.1, these hazard signs may be removed with the division's Water Pollution Control (WPC) prior approval.

Treated Effluent Disinfection Alternatives Investigations/Reporting

The permittee shall complete an evaluation of alternative disinfectants and submit a report (with the permittee's selected disinfection method defined) to the division's WPC within 12 months from the permittee's effective date. If a chlorination-based system is selected by the permittee, then an additional allocation for up to 3 months shall be authorized by the division for a dechlorination evaluation with summary report submitted to the division's WPC. If a non-chlorination based disinfection process is selected by the permittee, unless otherwise authorized in writing by the division, the permittee shall submit documentation to the division and provide a revised schedule which shall not exceed the disinfection facilities design/bidding/construction/startup allocations shown in this attachment for the chlorination-based disinfection system. The permittee shall determine if an interim disinfection system can be operated until the permanent facilities are installed and fully-functional.

Disinfection Facilities Design/Bidding/Construction/Startup

Time allocations for design/bidding and construction of disinfection facilities:

- 4 months to award design contract,
- 12 months to design/obtain bids,
- 4 months to process bid documents and contract, and
- 18 months to construct/startup disinfection facilities.

To develop operational proficiency (startup) for the disinfection system an additional 3 months is provided.

The above compliance requirements are sequential in the order presented in this attachment and based on the permit's effective date.

Integral Evaluations Pursuant to A Permittee Selected Chlorination Disinfection System

If chlorination is selected by the permittee for disinfection, then the permittee must include in the above alternatives investigation report (to be submitted to the division within 12 months from the permit's effective date) the following information regarding the disinfectant's potential adverse impacts on the receiving stream. The permittee shall provide the division with the types/amounts of specific chlorinated byproducts species and corresponding adsorbable organic halides (AOX) formed, and characteristics (i.e., aquatic toxicity, and potential for causing adverse animal and/or human health impacts). Additionally, the permittee shall complete and submit to the division an Outfall 001 treated effluent transport/dispersion summary which at a minimum presents the following information:

- a. Define the lateral, vertical, and longitudinal extent of the Outfall 001 treated effluent plume within the Mississippi River. The assessment must be completed for varying conditions of stage, flow, and velocities within the Mississippi River.
- b. Develop, or utilize an existing, mathematical model to predict the Outfall 001 treated effluent transport/dispersion characteristics within the Mississippi River.

The treated effluent transport/dispersion summary shall include the evaluation objectives, investigation procedures/protocols, data (monitoring and calculated results), mitigation measures, implementation plans, schedules, conclusions, and recommendations.

The Outfall 001 treated effluent discharged shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream. Should the permittee chlorinate its treated effluent, the permittee shall also monitor total residual chlorine (TRC), chlorinated byproducts (including adsorbable organic halides, and AOX). If the division deems in writing that the instream TRC and/or chlorinated byproducts, including AOX concentrations pose a human health hazard(s), within the mixing zone the permittee shall implement supplementary controls to achieve instream water quality levels which are safe. Some of the permittee's industrial user discharges may contain chemicals that could result in hazardous chlorinated byproducts. Therefore, as warranted the permittee shall identify relevant wastewater chemicals and control options, e.g., using wastestream characterization and treatability investigations. The permittee shall complete investigations for identifying changes to minimize the generation of chlorinated byproducts in the treated effluent from its disinfection process that might present a deleterious impact within Mississippi River. The permittee shall consider the effectiveness of an effluent diffuser(s) with respect to chlorinated byproducts control.

The permittee shall investigate and report the impact of instream total residual chlorine and propose to the division dechlorination recommendations for the reduced generation of chlorinated byproducts and aquatic toxicity due to the instream total residual chlorine. The division will consider the permittee's proposal and provide a written determination, if warranted.

The permittee shall provide the division with a list of possible and identified chlorinated byproducts based on actual wastewater treatability investigations, wherein the permit limits were achieved. The testing must be sufficient to cover the wastewater variability and dosage range required to achieve the Outfall 001 treated effluent *E. coli* limits. The listing shall also provide information regarding the characteristics of the particular chlorinated byproducts, including toxicity to fish and aquatic life and potential impact on human health. The actual wastewater treatability investigations shall include the corresponding adsorbable organic halides (AOX) monitoring results. The division may also reopen the permit to include Outfall 001 treated effluent AOX monitoring, based on the permittee's treatability investigation results.

Attachment 1

Outfall 001 Treated Effluent *E. coli* Compliance Elements and Schedule

Unless otherwise referenced in a division administrative action, the provisions presented in this attachment shall become a permit condition on its effective date.

To demonstrate compliance with the State of Tennessee's water quality standards, the permittee shall proceed with the program presented in this attachment to achieve the Outfall 001 treated effluent *E. coli* limits presented in Section 1.1. The permittee shall comply with the Outfall 001 treated effluent *E. coli* limits as-soon-as possible, and at a maximum such compliance shall occur within the time allocations presented subsequent and concurrently provide receiving stream recreational users human health protection measures.

- Recreational Users Human Health Protection Measures
- Treated Effluent Disinfection Alternatives Investigations/Reporting
- Disinfection Facilities Design/Construction/Startup
- Integral Evaluations If Chlorination Disinfection System Selected

Recreational Users Human Health Protection Measures

The permittee shall implement human health protective measures for recreational activities (e.g., water contact) since the permittee's Outfall 001 non-disinfected effluent discharge plume, as transported/dispersed within the Cooling Water Channel and subsequently in the Mississippi River, has the potential to cause the instream *E. coli* levels to exceed 126 cfu/100 ml as a geometric mean on a monthly basis or 487 cfu/100 ml daily maximum limits. As such, within 30 days from the permit's effective date, the permittee shall install signs at the Outfall 001 discharge area within the Cooling Water Channel and at the confluence of the Cooling Water Channel and the Mississippi River. These signs shall, at a minimum schematically show the dangers associated with the treated non-disinfected wastewater, include a written hazards narrative, show the likely Outfall 001 discharge plume location (with foam references), and no contact warning. The signs shall be visible from the Cooling Water Channel and Mississippi River, and located such that they can also be seen from the receiving stream banks.

When the permittee has installed/operated the Outfall 001 treated effluent disinfection system and achieves the *E. coli* limits specified in Section 1.1, these hazard signs may be removed with the division's WPC prior approval.

Treated Effluent Disinfection Alternatives Investigations/Reporting

The permittee shall complete an evaluation of alternative disinfectants and submit a report (with permittee's selected disinfection method defined) to the division's Water Pollution Control (WPC) local and Nashville offices within 12 months from the permittee's effective date. If a chlorination-based system is selected by the permittee, then an additional allocation for up to 3 months shall be authorized by the division for a dechlorination evaluation with summary report submitted to the division's WPC offices. If a non-chlorination based disinfection process is selected by the permittee, unless otherwise authorized in writing by the division, the permittee shall submit documentation to the division WPC offices and provide a revised schedule which

shall not exceed the disinfection facilities design/bidding/construction/startup allocations shown in this attachment for the chlorination-based disinfection system. The permittee shall determine if an interim disinfection system can be operated until the permanent facilities are installed and fully-functional.

Disinfection Facilities Design/Bidding/Construction/Startup

Time allocations for design/bidding and construction of disinfection facilities:

- 4 months to award design contract,
- 12 months to design/obtain bids,
- 4 months to process bid documents and contract, and
- 18 months to construct/startup disinfection facilities.

To develop operational proficiency (startup) for the disinfection system an additional 3 months is provided.

The above compliance requirements are sequential in the order presented in this attachment and based on the permit's effective date.

Integral Evaluations If Chlorination Disinfection System Selected

If chlorination is selected by the permittee for disinfection, then the permittee must include in the above alternatives investigation report (to be submitted to the division within 12 months from the permit's effective date) the following information regarding the disinfectant's potential adverse impacts on the receiving streams. As such, the permittee shall provide the division with the types/amounts of specific chlorinated byproducts species and corresponding adsorbable organic halides (AOX) formed, and characteristics (i.e., aquatic toxicity, and potential for causing adverse animal and human health impacts). Additionally, the permittee shall complete and submit to the division an Outfall 001 treated effluent transport/dispersion summary which at a minimum presents the following information:

- a. Defines the lateral, vertical, and longitudinal extent of the Outfall 001 treated effluent plume within the Cooling Water Channel and Mississippi River. The assessment must be completed for varying conditions of stage, flow, and velocities within the Mississippi River.
- b. Develop, or utilize an existing, mathematical model to predict the Outfall 001 treated effluent transport/dispersion characteristics within the Cooling Water Channel and Mississippi River.

The treated effluent transport/dispersion summary shall include the evaluation objectives, investigation procedures/protocols, data (monitoring and calculated results), mitigation measures, implementation plans, schedules, conclusions, and recommendations.

The Outfall 001 treated effluent discharged shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream. Should the permittee chlorinate its treated effluent, the permittee shall also monitor total residual chlorine (TRC), chlorinated byproducts (including adsorbable organic halides, and AOX). If the division deems in writing that the instream TRC and/or

chlorinated byproducts, including AOX concentrations pose a human health hazard(s), within the mixing zone the permittee shall implement supplementary controls to achieve instream water quality levels which are safe.

The permittee shall complete investigations for identifying changes to minimize the generation of chlorinated byproducts in the treated effluent from its disinfection process that might present a deleterious impact within the Cooling Water Channel and Mississippi River. Some of the permittee's industrial user discharges may contain chemicals that could result in hazardous chlorinated byproducts. Therefore, as warranted the permittee shall identify relevant wastewater chemicals and control options, e.g., using wastestream characterization and treatability investigations. The permittee shall consider the effectiveness of an effluent diffuser(s) with respect to chlorinated byproducts control.

The permittee shall investigate and report the impact of instream total residual chlorine and propose to the division dechlorination recommendations for the reduced generation of chlorinated byproducts and aquatic toxicity due to the instream total residual chlorine. The division will consider the permittee's proposal and provide a written determination, if warranted.