

ILLINOIS POLLUTION CONTROL BOARD
November 21, 2013

IN THE MATTER OF:)
)
WATER QUALITY STANDARDS AND) R08-9 (Subdocket C)
EFFLUENT LIMITATIONS FOR THE) (Rulemaking - Water)
CHICAGO AREA WATERWAY SYSTEM)
AND LOWER DES PLAINES RIVER:)
PROPOSED AMENDMENTS TO 35 ILL.)
ADM. CODE 301, 302, 303, and 304)

Proposed Rule. Second Notice.

OPINION AND ORDER OF THE BOARD (by D. Glosser):

SUMMARY

The Board today adopts a second notice opinion and order that follows a proposed second notice the Board adopted on October 3, 2013. The Board adopted the proposed second notice to allow for comments on changes made in the rule as a result of comments received from participants during first notice. The proposed second notice included a decision by the Board to revisit the designation of the Upper Dresden Island Pool (UDIP) as a General Use water. Upon re-examination, the Board proposed a UDIP aquatic life use rather than designating UDIP as General Use. Today the Board continues with the UDIP aquatic life use designation, making changes suggested in the comments to the proposed second notice.

In addition, in the proposed second notice, the Board amended the definitions of Aquatic Life Use (ALU) A and ALU B, in response to concerns raised in the first-notice comments. The Board received additional comments from participants on the definitions in response to the proposed second notice and has made additional changes to the definitions suggested in those comments.

Today the Board proposes the rule for second notice and directs the Clerk to submit the rule to the Joint Committee on Administrative Rules (JCAR) pursuant to the Illinois Administrative Procedure Act (IAPA) (5 ILCS 100/5-40 (2012)).

PROCEDURAL BACKGROUND

On October 26, 2007, Illinois Environmental Protection Agency (IEPA) filed a proposal under the general rulemaking provisions of Sections 27 and 28 of the Environmental Protection Act (Act) (415 ILCS 5/27, 28 (2010)). Generally, the proposal amends the Board's rules for Secondary Contact and Indigenous Aquatic Life Use to update the designated uses and criteria necessary to protect the existing uses of Chicago Area Waterways System (CAWS) and Lower

Des Plaines River (LDPR). On November 1, 2007, the Board accepted the proposal for hearing. On November 15, 2007, the Board granted a motion to hold hearings in Chicago and Joliet.

On June 12, 2008, the Metropolitan Water Reclamation District of Greater Chicago (District) filed a motion to stay the rulemaking proceeding, which was supported by: 1) Midwest Generation L.L.C (Midwest Generation), 2) Chemical Industry Council of Illinois (CICI), and 3) Stepan Company (Stepan). On June 25, 2008, the Environmental Law and Policy Center, Friends of the Chicago River, Sierra Club Illinois Chapter, Natural Resources Defense Council and Openlands (Environmental Groups) filed a response in opposition to the motion. Joining in the opposition to the motion was the Southeast Environmental Task Force (SETF), the People of the State of Illinois (People), and IEPA. On July 21, 2008, the Board denied the motion to stay and directed the parties to proceed with additional hearings already scheduled.

On March 18, 2010, the Board granted a motion filed by Citgo Petroleum Corporation & PDV Midwest, LLC () for an additional hearing on Asian carp, but delayed that hearing until later in 2010. The Board also granted a motion filed by the Environmental Groups to sever the dockets. The Board severed the dockets as follows: 1) Subdocket A deals with the issues related to recreational use designations, 2) Subdocket B addresses issues relating to disinfection and whether or not disinfection may or may not be necessary to meet those use designations, 3) Subdocket C addresses the issues involving proposed aquatic life use, and 4) Subdocket D addresses the issues dealing with water quality standards and criteria that are necessary to meet the aquatic life use designations.

The Board held 39 days of hearing as of March 18, 2010, when the docket was divided, and additional hearings proceeded in the Subdockets. Hearings were held in Chicago: January 28, 2008 through February 1, 2008, June 16, 2008, September 8, 2008 through September 10, 2008, September 23, 2008 through September 25, 2008, February 17 and 18, 2009, March 3 and 4, 2009, April 15, 2009, May 5, 6, and 20, 2009, July 28 and 29, 2009, August 13 and 14, 2009, October 5, 2009, November 9 and 10, 2009, and January 13 and 14, 2010. Hearings were held in Joliet: March 10, 2008 through March 12, 2008, October 27 and 28, 2008 and November 17, 2008. Hearings were held in Des Plaines: April 23 and 24, 2008, and December 2 and 3, 2008.

Not all the testimony received during the 39 days of hearing held prior to March 18, 2010 is relevant to this Subdocket. Those whose testimony is relevant are the following:

Rob Sulski of IEPA (Exhibit 1)
Roy Smogor of IEPA (Exhibit 3)
Charles S. Melching on behalf of District (Exhibit 169)
Jennifer Wasik on behalf of District (Exhibit 187, 230)
Samuel G. Dennison on behalf of District (Exhibit 191, 192, 209)
Marcelo H. Garcia on behalf of District (Exhibit 193)
Paul L. Freedman on behalf of District (Exhibit 204)
John Mastracchio on behalf of the District (Exhibit 223)
Alan L. Jirik on behalf of Corn Products (Exhibit 303)
James E. Huff, P.E. on behalf of Citgo/PDV (Exh. 285) and Corn Products (Exhibit 304)
Joseph V. Idaszak on behalf of Corn Products (Exhibit 305)

Dr. David Thomas on behalf of the Environmental Groups (Exhibit 327)
 Laura Barghusen on behalf of the Environmental Groups (Exhibit 338)
 Julia Wozniak on behalf of Midwest Generation (Exhibit 364)
 Greg Seegert on behalf of Midwest Generation (Exhibit 366)
 Dr. G. Allen Burton on behalf of Midwest Generation (Exhibit 369)

In addition to hearing testimony, the Board received 381 exhibits and over 500 public comments, prior to the dockets being divided on March 18, 2010. Many of the comments and exhibits are not relevant to a determination of aquatic life use, and therefore will not be listed. The comments from participants received prior to March 18, 2010 relevant to aquatic life use are:

The District PC 284
 Midwest Generation PC 285
 United States Environmental Protection Agency (USEPA) PC 286

Proceedings Since March 18, 2010

The Board has held an additional ten days of hearings all in Chicago in Subdocket C. The first of those on November 9 and 10, 2010, were devoted to the issue of the impact of Asian carp prevention measures on the CAWS aquatic life use. The Board held hearings on additional issues regarding aquatic life use designations in 2011 on: March 9 and 10, May 15, 16, and 17, June 27, and August 15 and 16.

By hearing officer order, the pre-first notice comment period was closed on October 3, 2011, with responsive comments to be filed by October 17, 2011. However, on September 22, 2011, the hearing officer received a "Joint Emergency Motion to Vacate Deadlines in Subdocket C and Set Date for Filing of Joint Status Report", which was granted. After receiving status reports on November 21, 2011, and January 3, 2012, a new comment deadline was established. Final comments were due on March 5, 2012, and responsive comments were due by March 19, 2012.

The following individuals representing industry, environmental organizations, and state agencies testified at the ten days of hearings held on Subdocket C:

Robin L. Garibay on behalf of Midwest Generation (Exhibit 420)
 Julia Wozniak on behalf of Midwest Generation (Exhibit 425)
 Greg Seegert on behalf of Midwest Generation (Exhibit 428)
 Darren Melvin on behalf of American Waterway Operators (AWO) (Exhibit 434)
 John Kindra on behalf of AWO (Exhibit 435)
 Delbert Wilkins on behalf of AWO (Exhibit 436)
 James E. Huff on behalf of Citgo/PDV (Exhibit 437)
 Ray E. Henry on behalf of Midwest Generation (Exhibit 440)
 Scott B. Bell on behalf of the District (Exhibit 447)
 Jennifer Wasik on behalf of District (Exhibit 431, 461)
 Scudder D. Mackey on behalf of District (Exhibit 457)

Adrienne D. Nemura on behalf of the District (Exhibit 465)
 Paul Botts on behalf of Wetlands Initiative (Exhibit 473)
 Dr. David Thomas on behalf of the Environmental Groups (Exhibit 474)
 Kimberly Rice of the Friends of the Chicago River (Exhibit 475)
 Roy Smogor on behalf of IEPA (Exhibit 476)

In addition to hearing testimony, the Board received 469 exhibits and over 1300 public comments. Not all comments and exhibits are relevant to a determination of aquatic life use, and therefore will not be listed. Further, many public comments consist of one page or less from numerous individuals. Those comments are: PC 397, 307-483, 485-494, 501-504, 507-510, 1258-1274, 1294-1329, 1330-1336, and 1339-1354. Those comments express support for cleaning up the waters. The public comments from participants received prior to first notice are:

IEPA PC 286, 495, 1275, 1289
 Illinois Department of Natural Resources (IDNR) PC 505
 American Waterway Operators PC 552
 David L. Thomas, PhD PC 560
 The Environmental Groups PC 1283, 1293
 The District PC 1031, 1276, 1292, 1366
 Citgo/PDV PC 1278, 1287
 Stepan Company PC 1279, 1291
 Illinois Environmental Regulatory Group (IERG) PC 1280, 1284
 Corn Products International, Inc. PC 1281, 1288
 ExxonMobil Oil Corporation PC 1282, 1290
 Midwest Generation PC 1277, 1285, 1286

On February 21, 2013, the Board adopted a first-notice opinion and order in Subdocket C. On March 15, 2013, pursuant to the Administrative Procedure Act (5 ILCS 100/5-40 (2010)), the rule was published in the *Illinois Register*. 37 Ill. Reg. 2851 (Mar. 15, 2013). On March 22, 2013, the hearing officer issued an order noting that publication in the *Illinois Register* begins a 45-day comment period. The hearing officer set a comment deadline of April 30, 2013.

On April 4, 2013, IERG filed a motion for clarification of the Board's first-notice opinion and order. On April 8, 2013, the Chemical Industry Council of Illinois (CICI) filed a comment in support of IERG's motion. PC 1368. On April 19, 2013, IEPA and the Environmental Groups filed responses to IERG's motion. On May 16, 2013, the Board granted the motion in part and denied the motion in part. Also on May 16, 2013, the hearing officer issued an order closing the comment period on July 1, 2013.

The Board received final comments from:

USEPA PC 1372
 IEPA PC 1373, 1387
 The District PC 1374, 1386
 ExxonMobil PC 1375
 IERG PC 1376

Citgo/PDV PC 1377, 1385
 Stepan PC 1378
 CICI PC 1379
 Ingredion Incorporated (Ingredion)¹ PC 1380
 Midwest Generation PC 1381, 1383
 Environmental Groups PC 1382, 1384

Several participants asked for additional time to respond to the USEPA comment (PC 1372). On July 30, 2013, the hearing officer granted additional time for comments until August 30, 2013.

On October 3, 2013, the Board adopted a proposed second notice, allowing for comments on the second notice proposal. The Board allowed participants until November 4, 2013, to comment on the proposed second notice. The Board received the following comments on November 4, 2013:

USEPA PC 1388
 CICI PC 1389
 IEPA PC 1390
 Citgo/PDV PC 1391
 IERG PC 1392
 ExxonMobil PC 1393.

Department of Commerce and Economic Opportunity

On November 16, 2007, and July 7, 2011, in accordance with Section 27(b) of the Act (415 ILCS 5/27(b) (2012)), the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study for this rulemaking. The Board did not receive a response to those letters and the Board received no comment on DCEO's decision. The Board also notified DCEO on August 11, 2010, and DCEO responded on September 27, 2010, indicating that no economic impact study would be performed. No comment was received on DCEO's response.

SUMMARY OF BOARD'S FIRST NOTICE

After reviewing the record and examining the Clean Water Act (CWA) goal of "water quality which provides for the protection and propagation of fish, shellfish, and wildlife. . . ." 33 U.S.C. § 1251(a)(2), the Board proposed two aquatic life use designations and developed definitions of those aquatic life use designations. The Board proposed a CAWS ALU A and a CAWS and Brandon Pool ALU B. Generally CAWS ALU A waters are capable of supporting communities of native fish that are tolerant and moderately tolerant and may include sport fish species such as channel catfish, largemouth bass, bluegill, northern pike, and black crappie, and non-game fish species such as the tadpole madtom, spotfin shiner, and orangespotted sunfish. CAWS and Brandon Pool ALU B waters are capable of supporting primarily tolerant fish

¹ Ingredion notes that since the last filing, Corn Products International, Inc. changed its name to Ingredion.

species, such as central mudminnow, golden shiner, bluntnose minnow, yellow bullhead and green sunfish.

The Board proposed as CAWS ALU A waters: Upper North Shore Channel, Lower North Shore Channel, North Branch of the Chicago River, South Branch of the Chicago River, Calumet-Saganashkee (Cal-Sag) Channel, Calumet River, Little Calumet River, Grand Calumet River, Lake Calumet, and Lake Calumet Connecting Channel. The Board proposes as ALU B waters the Chicago Sanitary and Ship Canal (CSSC) and Brandon Pool.

The Board did not propose an aquatic life use for the Upper Dresden Island Pool (UDIP). Instead, the Board proposed that the UDIP be classified as General Use, based on its ability to meet the CWA goals. However, the Board stated that it would visit the issue of appropriate water quality standards for UDIP in Subdocket D.

The Board also determined that maintaining the General Use standard for the Chicago River is appropriate as the Chicago River can meet the CWA goals in the foreseeable future. Therefore, no change is proposed for the Chicago River.

The Board opened a Subdocket E to examine issues surrounding Bubbly Creek (the South Fork of the South Branch Chicago River) as requested by the District and the Environmental Groups.

MOTION TO CLARIFY

In response to IERG's motion, the Board expressed appreciation for the concerns raised by IERG and IEPA, and clarified the Board's first-notice opinion and order in two areas. First, the Board noted it does not intend that the General Use water quality standard will apply to the UDIP until the conclusion of Subdocket D. In Subdocket D, the Board will examine the record to determine appropriate water quality standards for UDIP. The Board invited the participants to provide clarification for the rule to alleviate any confusion. The Board offered two examples of potential clarification.

Second, by designating the UDIP as General Use and retaining the General Use designation for the Chicago River the Board did not intend to change or alter the Recreational Use designations and standards decided in Subdockets A and B. The Board asked participants to suggest rule language. Likewise, the Board suggested that if IEPA believes language is necessary as a placeholder for Bubbly Creek during the pendency of Subdocket E, the Board invited suggestions.

As to the other issues raised by IERG and IEPA, the Board agreed with the Environmental Groups that these are clarifications that can be made as a part of the first notice process. The Board's first-notice proposal allows for comment, and the Board intended that the proposal elicit discussion. IERG's motion and IEPA's response touch on some of the areas in which the Board had anticipated receiving comments. The Board invited all participants to provide suggestions, comments, and to propose alternative language where appropriate.

SUMMARY OF FIRST NOTICE PUBLIC COMMENTS

United States Environmental Protection Agency (PC 1372)

On June 26, 2013, the USEPA filed comments on the proposed aquatic life uses. USEPA raises concerns regarding three key areas of the Board's first notice: the UAA Analysis, Aquatic Life Use A and B Descriptions, and Bacteria Criteria for Primary Contact Waters. Each area of concern will be discussed separately.

UAA Analysis

USEPA states that the Board has "proposed adopting designated uses throughout the CAWS and LDPR that do not include the uses specified in Section 101(a)(2) of the Clean Water Act (CWA) in that the proposed designated uses do not provide for the protection and propagation of fish, shellfish, and wildlife." USEPA further states that the Board asserted in its first-notice opinion that attaining these uses is not feasible for reasons cited at 40 CFR § 131.10(g)(3), (4) and (5). PC 1372 at 1. Section 131.10(g)(3) allows a state to determine that attainment is not feasible due to

Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place. 40 CFR § 131.10(g)(3).

USEPA notes that while the Board concluded that stormwater and combined sewer overflows (CSO) are human caused sources of pollution, the Board did not demonstrate "that those sources of pollution cannot be remedied or that any such remedies that might exist would cause more environmental damage to correct than to leave in place." PC 1372 at 1. USEPA argues that the record suggests CSOs can be "remedied through the completion of the Tunnel and Reservoir Plan." Therefore, USEPA questions whether 40 CFR §131.10(g)(3) "provides an adequate basis to justify adoption of designated uses that do not include the uses specified in section 101(a)(2) of the CWA of providing for the protection and propagation of fish, shellfish, and wildlife." *Id.*

USEPA next notes that 40 CFR §131.10(g)(4) allows a state to determine that attainment is not feasible due to

Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses. PC 1372 at 2.

USEPA states that the Board had concluded that for some waters, low flow conditions had precluded the attainment of CWA goals. USEPA opines that information in the record does not demonstrate "that the low flow conditions cited by [the Board] are related to the natural features

of the water body” and therefore question whether such low flows to prevent attainment of the aquatic life use. *Id.*

USEPA addresses 40 CFR §131.10(g)(5), which allows a state to determine that attainment is not feasible due to:

Dams, diversion or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use. 40 CFR §131.10(g)(5).

USEPA suggests the Board strengthen its reasoning for each water segment where use designations proposed do not meet CWA goals. USEPA specifically requests the Board to identify (1) what information demonstrates that the hydromodifications “preclude the attainment of the use,” based upon the administrative record regarding existing physical and biological conditions, and (2) the basis for concluding that “it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use.” PC 1372 at 2.

USEPA supports the Board’s proposed designations for the Chicago River and Upper Dresden Island Pool; however, USEPA requests the Board to explain why the portions of the Calumet River that are “hydrologically connected to Lake Michigan at all times, are not capable of supporting aquatic life uses consistent with those specified in section 101(a)(2) of the CWA”. USEPA notes that while habitat of the shipping channels may not be able to be restored to meet CWA goals, it is not clear how the hydrologic modifications prevent attainment of these goals in the narrower and shallower waters in CAWS that are not used for navigation purposes. PC 1372 at 2 and 3. USEPA asks the Board to provide more information regarding this issue for the “Grand Calumet River, North Shore Channel, and North Branch of the Chicago River north of Addison Street”. PC 1372 at 3. USEPA lastly asks that the Board better demonstrate that the hydromodifications present in the CSSC and Brandon Pool prevent the attainment of ALU A. *Id.*

Aquatic Life Use A and B Descriptions

USEPA notes that the Board “substantially modified” the descriptions of the proposed aquatic life use designations such that USEPA has “identified several aspects of the proposed designations that do not appear to be consistent with federal law”. *Id.* USEPA is specifically concerned about the absence of references to providing protection for “macroinvertebrates and various plants, algae, and wildlife” in the aquatic life use designation descriptions. USEPA therefore recommends that the Board “revert to the designated use language proposed by the IEPA in its Statement of Reasons”, or if the Board’s definitions are to be retained, questions “whether the word “may” preceding the fish species list should be included in the description of the designated uses”. *Id.*

Bacteria Criteria for Primary Contact Waters

USEPA notes that Illinois is required by the CWA to update and submit to USEPA revised standards for the Great Lakes recreational waters and encourages Illinois to “update all recreational water standards for all recreational waters in Illinois, including the CAWS and LDPR, during this same action”. *Id.*

Illinois Environmental Protection Agency (PC 1373)

On June 28, 2013, IEPA filed its comment and identified several issues in their First Notice Comments. Specifically, IEPA takes issue with the Board’s definitions for Aquatic Life Use A and B. IEPA also expresses concerns with the Board’s designation of UDIP and Chicago River as General Use. Also, while agreeing that Subdocket E should be open, IEPA raises questions about the impact of the Subdocket. Finally IEPA offers clarification on specific issues raised by the Board.

Definitions

IEPA begins by providing clarity for their three original proposed aquatic life uses. PC 1375 at 3. In their original proposal, IEPA attempted to incorporate the meaning of the CWA goal of “balanced indigenous populations” of aquatic life. According to IEPA, their three definitions represent the “concepts of balance and imbalance of aquatic life” based on the “differences in the presence and abundance of aquatic life in each of three categories of relative tolerance to human impacts”. *Id.* IEPA asserts that to achieve the CWA goal of “balanced aquatic life requires conditions that support intolerant types of fish, macroinvertebrates, and other organisms”. PC 1373 at 4. IEPA focused on the difference between balance and imbalance to distinguish among their three proposed aquatic life use designations. *Id.*

IEPA believes there are complications in identifying specific fish species in aquatic life use definitions. First, while the Board included fish species, other types of aquatic life were not included. *Id.* Mentioning specific fish species is not necessary and may unintentionally limit the scope of the definitions. PC 1373 at 5. IEPA recommends that if the Board chooses to include specific aquatic species in the aquatic life use definitions, that a continuum of tolerance be used that includes five categories: Intolerant, Moderately Intolerant, Intermediately Tolerant, Moderately Tolerant, and Tolerant. PC 1373 at 6. This continuum is used by the Ohio Environmental Protection Agency. *Id.* IEPA also suggests that if specific fish species are to be included in these definitions, then two species that represent the most tolerant end of the continuum should be included, common carp and green sunfish. PC 1373 at 10.

IEPA opines that the Board’s use of “native” to describe fish species in the aquatic life use definitions is unnecessary and could confuse the issue. PC 1373 at 11. Some fish that meet the definition of “tolerant” or “intolerant” may not be native species. IEPA argues that to “clearly define the two aquatic life uses under consideration – each representing an already imbalanced biological condition – does not require incorporating the concept of nativeness”. PC 1373 at 12. IEPA recommends that the Board not use the terms “native” or “non-native” in describing aquatic life in the aquatic life use definitions. *Id.*

IEPA suggests there is ambiguity in the Board's use of the terms "maintaining" and "supporting", which raises the question of whether these terms are intended to have separate meanings. PC 1378 at 12. IEPA asserts there is confusion on how these terms are used in the definitions.

At first notice, IEPA notes the Board attempted to define both what the waters are not capable of achieving as well as what they are capable of achieving. PC 1373 at 13. Further, the definition for Aquatic Life Use A waters does not address irreversibility, whereas the definition for Aquatic Life Use B waters does. IEPA contends that it is unnecessary to address present conditions while defining these uses. *Id.* IEPA asserts that because "the uses represent aquatic-life goals, it is more appropriate that each definition focus on describing what is attainable rather than what is not attainable". *Id.*

While believing it is inappropriate to consider present conditions when defining aquatic life uses, IEPA suggests that if the Board does so, it not use the phrase "a balanced, integrated, adaptive community". PC 1373 at 14. IEPA asserts that this specific phrase "has long been recognized as a definition for biological integrity – which is an overall objective of the Clean Water Act, but not equivalent to the interim aquatic-life goal of balanced populations". *Id.* IEPA further recommends not confining the definition of the two aquatic life uses to warm-water fish and macroinvertebrate communities. PC 1373 at 15. IEPA contends the term "warm-water" is undefined and may "increase the potential for confusion". PC 1373 at 15 and 16.

IEPA discusses the need to comply with 40 C.F.R. Section 131.10(a), which states that: "[i]n no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the United States". PC 1373 at 16. In the Board's proposed definition of Aquatic Life Use B waters, it states: "[s]uch physical modifications are of long duration and may include artificially constructed channels consisting of vertical sheet-pile, concrete and rip-rap walls designed to support commercial navigation and **the conveyance of stormwater and wastewater.**" *Id.*, emphasis in the original. This definition could be interpreted as conflicting with federal regulations. PC 1373 at 17.

IEPA believes that the original definitions meet "the balance between over-specifying and over-generalizing the biological condition that each use represents relative to the Clean Water Act interim aquatic life goal". *Id.* As a result of these concerns, IEPA recommends retaining the original definitions it proposed. *Id.*

UDIP

IEPA raises concerns with the Board's decision to designate the UDIP as General Use, with the intention to revisit the issue of appropriate water quality standards in Subdocket D. PC 1373 at 17. First, IEPA is expected to submit water quality standards to USEPA within 30 days of final State Action. PC 1373 at 18. Second, IEPA argues that this approach could be "interpreted as a misapplication of the Clean Water Act requirements for federal approval of water quality standards". PC 1373 at 19. IEPA notes that the task in Subdocket D is to determine what water quality standards are needed to protect the designated use, not to determine what standards the UDIP can meet. IEPA contends that "adoption of general use designations

for any of the CAWS and Lower Des Plaines River waters would generally be expected to be accompanied by the application of general use water quality standards”. *Id.*

IEPA notes that in its first-notice opinion, the Board noted that “there appears to be little difference between the UDIP designation as defined by IEPA and General Use Waters”. PC 1375 at 20. IEPA points to a key difference between the use designation it proposed and the General Use category: the UDIP designation does not address recreational uses. IEPA contends that the first-notice opinion “did not explain how the General Use designation should be read in conjunction with the incidental contact recreation water designation adopted for these waters in R08-09(A)”. *Id.* IEPA notes the Board provided clarification in its May 16, 2013 supplemental opinion, explaining that “the Board did not intend to change or alter the Recreational Use designations and standards decided in Subdockets A and B”. PC 1373 at 21. IEPA recommends that the Board “adopt language in Part 303 that clarifies this segment is designated as General Use for aquatic life, agricultural, aesthetic use, and all other purposes except for recreational uses, if it retains the General Use designation in the adopted rule”. *Id.*

Chicago River

IEPA raises concerns with the Board’s decision to retain the General Use designation for the Chicago River. PC 1373 at 22. IEPA notes that USEPA has approved changing the recreational use of the Chicago River from General Use to Primary Contact Use, although “there may be no practical difference” between the two. *Id.* IEPA contends that “[w]hen USEPA approved the removal of the General Use designation for recreational purposes, it simultaneously disapproved any such removal for purposes of aquatic life, wildlife, agricultural, industrial, and aesthetic quality uses because no adequate rationale was provided in Subdocket A”. PC 1373 at 23. IEPA recommends that if the Board retains the General Use designation for the Chicago River, it maintains those uses for recreational purposes, “even though there should be no practical distinction between the two recreational use designations”. *Id.*

IEPA does not agree with the basis for the Board’s decision to retain the General Use designation for the Chicago River, believing the technical analysis IEPA conducted appropriately led to the IEPA Aquatic Life Use B proposal. PC 1373 at 24. IEPA indicates it is willing to accept the compromise of Aquatic Life Use A reached between the District and the Environmental Groups but has technical concerns with the proposed General Use designation for this segment. *Id.* IEPA agrees that Chicago River water quality “has historically been relatively good as a result of the influence of Lake Michigan water”, but notes that the Chicago River “did not meet the screening test for attainment of the General Use water quality standards”. PC 1373 at 27.

IEPA raises concerns with the Board’s explanation of how it determined the appropriate aquatic life designation, considering water quality, biological conditions, and habitat, “with no one of these factors being more important than the others”. PC 1373 at 29. IEPA notes that it may not be possible to give “equal weight” in determining the appropriate aquatic life use of a specific stream segment. IEPA suggests the Board may need to explain this methodology in order for USEPA to determine if the Board’s analysis is consistent with the CWA. *Id.*

IEPA notes that the Chicago River has the lowest habitat potential of all the sites surveyed in CAWS. PC 1373 at 30. As a result, IEPA does not agree with the Board's conclusion that the biological condition of the Chicago River is good. *Id.*

Subdocket E

Another issue of concern raised by IEPA relates to Bubbly Creek. In the Board's first-notice opinion, a new Subdocket E was opened to "examine issues surrounding Bubbly Creek (the South Fork South Branch Chicago River)". PC 1373 at 31. IEPA notes that USEPA has approved the Board's designation of the South Fork South Branch as Incidental Contact Recreation Use. IEPA requests that the Board make it clear that Subdocket E is not "intended to disturb this adopted and approved use designation for recreational uses". PC 1373 at 32. IEPA also suggests the Board provide clarity as to what standards apply to this segment prior to the completion of Subdocket E, recommending that there be a delay in the repeal of the Secondary Contact and Indigenous Aquatic Life use water quality standards until after the completion of Subdocket E. *Id.*

Responses to Board Questions

IEPA provides responses to five issues raised by the Board regarding the aquatic life use definitions and designations for several stream segments proposed by IEPA. PC 1373 at 33. The first is why the aquatic life use definitions differed from those used in the CAWS and LDPR UAA. *Id.*, referring to Attach A and Attach B IEPA explains that the UAAs were developed by contractors who could not be delegated the responsibility of making policy decisions. PC 1373 at 34. In addition, the UAA contractors did not testify at hearings and were not subject to cross-examination. As a result, IEPA suggests the UAA reports "be relied on primarily for the value they present as a compilation of available data." *Id.*

A second issue IEPA addresses is the meaning of the terms "tolerant, intermediately tolerant, and intolerant". IEPA states that use of these terms was meant to represent the "concepts of balance and imbalance of aquatic life". PC 1373 at 34. IEPA explains that the differences in the presence and abundance of aquatic life in each of these three categories correspond to the relative tolerance to human impacts. PC 1373 at 35. IEPA notes that in order to achieve the CWA goal of balance aquatic life, conditions must be present to support intolerant species of fish, macroinvertebrates and other organisms. The main difference between a balance and imbalance within an aquatic system is the loss of intolerant species. *Id.*

The Board raised concerns in reconciling IEPA's proposed definitions for ALU A, ALU B and UDIP aquatic life use designations and their corresponding water quality standards. PC 1373 at 36. IEPA explains that "protecting different levels of biological potential does not require that all chemical water-quality standards be different". IEPA notes that for most chemical standards, particularly those intended to prevent toxic effects, the thresholds will not differ much between different aquatic life use designations because "all aquatic life uses would at least protect against harmful toxic effects". *Id.* IEPA states that the "most likely standards to vary among different use designations are the same ones that vary in the IEPA's proposals such as dissolved oxygen, ammonia and temperature". *Id.*

A fourth issue IEPA addresses the concern that there is a lack of “consistent correlation between water quality and aquatic habitat when using those two factors to determine appropriate aquatic life use”. PC 1373 at 36. IEPA explains that it is important to recognize the irreversibility of the degraded conditions as compared to the irreversibility of habitat conditions. For most segments, IEPA contends that the “irreversibility of the existing degraded physical-habitat conditions prevails over the existing (though reversible) degraded physiochemical conditions of the water”. *Id.*

IEPA raises questions with the Board’s explanation that their proposed aquatic life use designations were based on water quality, biological conditions, and habitat. PC 1373 at 37. IEPA suggests “it is not clear that these three factors can legitimately be given equal weight in determining the attainable aquatic life use of a given segment”. IEPA explains that water quality is used for screening to determine whether General Use is an existing use, and habitat is the most important factor for determining attainable aquatic life use. *Id.*

The Board also requested input on whether USEPA’s publication of “2012 Recreational Water Quality Criteria” will impact the standards for primary contact recreation use or the need for standards for incidental contact recreational use. PC 1373 at 38. IEPA states that “the scientific information is not available to promulgate ambient water quality standards for Incidental Contact Recreational Use activities”. PC 1373 at 38 and 39. In addition, this publication only addresses recreational uses for primary contact. PC 1373 at 39. IEPA explains that it has made a commitment to USEPA to propose a change to the Board for the “bacterial water quality standard from fecal coliform to *Escherichia coli* (“*E. coli*”) for General Use waters”. *Id.*

Metropolitan Water Reclamation District of Greater Chicago (PC 1374)

On July 1, 2013, the District filed comments on the Board’s first-notice opinion. PC 1374 at 1. The District, in its agreement with the Environmental Groups, has no objection to designating the following CAWS segments as ALU A: Upper North Shore Channel, Lower North Shore Channel, North Branch of the Chicago River, South Branch of the Chicago River (excluding Bubbly Creek), Cal-Sag Channel, Calumet River, Grand Calumet River, Lake Calumet, and Lake Calumet Connecting Channel. PC 1374 at 2 and 3.

The District supports the Board’s action to open Subdocket E to address issues associated with the South Fork of the South Branch of the Chicago River (Bubbly Creek), however, the District is concerned that the Board’s proposal to designate the South Branch of the Chicago River could be interpreted to include Bubbly Creek. PC 1374 at 3. The District requests the Board either “clarify that any aquatic life use designated for the South Branch of the Chicago River would not apply to Bubbly Creek” or adopt a narrative standard for Bubbly Creek at the conclusion of Subdocket E. The District provided language for the narrative standard. *Id.*

The South Fork of the South Branch Chicago River (Bubbly Creek) is capable of maintaining transient populations of tolerant aquatic-life dominated by species that are adaptive to several of the following stressors: habitat modifications, extended periods of low DO [dissolved oxygen], widespread siltation, and toxic

sediment. Bubbly Creek waters are isolated quiescent waters that often exhibit very low to no flow. They are subject to variable DO concentrations resulting from stagnant low flow conditions and, in some cases, high velocity flow patterns during wet weather pump station discharges designed for flood control.

The District supports the use of examples of moderately tolerant and tolerant fish species that may be found in ALU A and ALU B waters, but has concerns with several species used by the Board. PC 1374 at 4. The Board proposed including northern pike as being supported in ALU A waters. The District notes that in 12 years of fish collections, this species has only been collected three times. The District further notes while “northern pike are tolerant of low dissolved oxygen, their small numbers in the CAWS likely is due to a lack of habitat”. *Id.* The District requests that the Board remove northern pike from the list of species in the definition of ALU A waters. PC 1374 at 5. The District has similar concerns with the Board’s inclusion of the tadpole madtom in the definition of ALU A waters, noting that the District has never collected a single tadpole madtom in 12 years of collecting fish in CAWS. The District requests that this species also be removed from the definition of ALU A waters. *Id.*

The District raises concerns with the inclusion of the central mudminnow in the definition of ALU B waters, stating that it has collected only four central mudminnows in 12 years of fish collecting, none of which were collected in ALU B waters. The District, therefore requests that this species be removed from the ALU B waters definition. *Id.*

In response to the Board’s question regarding the concern with focusing on individual stream segments rather than to CAWS or LDPR as a whole, the District opined that “Due to the substantial differences in characteristics and conditions among CAWS segments . . . the District believes it most appropriate to determine applicable aquatic life uses on a segment-by-segment basis.” PC 1374 at 5 and 6. The District argues that habitat preferences by different fish species will determine the segments in which they will be present, therefore supporting the application of a “different aquatic life use designation to parts of the system that lack positive habitat attributes, such as the CSSC”. PC 1374 at 6.

The District provided a response to the Board’s question as to whether USEPA’s new recreational water quality criteria would impact the water quality standards for primary contact recreational use or establish a need for standards for incidental contact recreation use. PC 1374 at 6. The District believes that “the new USEPA recreational water quality criteria should have no effect on this rulemaking”. The District noted, however, that a decision will need to be made as to whether to adopt the new USEPA criteria statewide through a separate rulemaking effort. Finally, because USEPA’s recommended criteria apply only to primary contact waters, there should be no need for water quality standards for incidental contact.

ExxonMobil Oil Corporation (PC 1375)

On July 1, 2013, ExxonMobil submitted comments to the Board regarding its first-notice opinion and order. PC 1375 at 1. ExxonMobil opposes the designation of the UDIP as a General Use water for aquatic life purposes, arguing that the record is clear that the UDIP cannot meet CWA goals. PC 1375 at 2. ExxonMobil contends that IEPA’s proposed designation, Upper

Island Pool Aquatic Life Use, attempted to “distinguish between achievable aquatic life populations in the UDIP and those in surface waters with General Use classifications that do not have the habitat limitations characteristic of the UDIP”. PC 1375 at 3. ExxonMobil also disagrees with the Board’s and IEPA’s conclusion that none of the UAA factors apply to the UDIP, stating that Factors 3, 4, 5, and 6 apply to the UDIP. *Id.*

ExxonMobil also questions the Board’s inclusion of “intolerant” species in the description of the UDIP and requests that the Board provide documentation of this conclusion. ExxonMobil asserts that the “General Use aquatic life definition assumes, *a priori*, that a balanced, indigenous population of aquatic life is achievable which would include intolerant aquatic species, *both in the water column and the benthos*”. PC 1375 at 5. ExxonMobil further contends that no examples of intolerant fish species with sustainable populations in the UDIP were documented in the record. *Id.* The apparent lack of physical habitat, including channelized and impounded pools characteristic of the UDIP, “preclude the development of sustainable populations of intolerant fish species”. PC 1375 at 6 and 7.

ExxonMobil raises concerns with IEPA not having determined how to address the seasonal chloride issue that results from the use of road salts. PC 1375 at 14. Use of road salts as a deicer is a human-caused condition that results in seasonal chloride concentrations that exceed the proposed numeric standard. PC 1375 at 15. As a result, ExxonMobil suggests that the Board adopt “an appropriate aquatic life designated use and aquatic life WQS [water quality standards] for chlorides consistent with these current conditions, relying on the “human-caused conditions” UAA factor. *Id.*

ExxonMobil addresses a question raised by the Board as to whether there should be a delay in the effective date of the proposed rule in Subdocket C related to aquatic life use, or whether the Board should wait to adopt these uses until the water quality standards are adopted in Subdocket D. PC 1375 at 20. ExxonMobil prefers the Board delay adopting aquatic life uses until the water quality standards have been finalized and adopted. It also supports the Board’s proposed option of delaying the effective date of the use designations until such time that the water quality standards are adopted. *Id.*

ExxonMobil raises the question of how the Board intends to implement all of the standards found in 35 Ill. Adm. Code 302.Subpart B in the UDIP. PC 1375 at 21. ExxonMobil notes that the Board did not “accurately characterize the Illinois EPA’s proposal when it labeled it ‘nearly identical’ to the General Use standards” in that General Use waters are subject to the derived toxics criteria in Subpart F. *Id.* This requirement adds dozens of constituents requiring analyses that were not previously required by facilities. ExxonMobil asserts that no economic analysis has been done to determine the impact of imposing 35 Ill. Adm. Code 302.Subpart F on dischargers to the UDIP. In addition, ExxonMobil argues that “the methodology for deriving the criteria was developed with General Use waters in mind rather than waters subject to Secondary Contact and Indigenous Life Standards”. *Id.*

ExxonMobil raises the question of whether the Board intended for the amendments to General Use in Subdocket D to apply to all waters of the state that are designated as General Use. PC 1375 at 22. ExxonMobil suggests it would be inappropriate to revise General Use

water quality standards without providing the dischargers to these waters an opportunity to provide testimony and comment. *Id.*

ExxonMobil questions how the Board intends for the recreational use designation for the UDIP, Incidental Contact, to relate to the Board's proposed General Use designation for the UDIP. PC 1375 at 23. ExxonMobil also raises inconsistencies in the language in Sections 303.204 and 303.225 regarding the confusion between the Incidental Contact recreation designation for the UDIP and the General Use designation resulting from the aquatic life use designation.

Illinois Environmental Regulatory Group (PC 1376)

On July 1, 2013, IERG submitted comments. IERG is a not-for-profit Illinois corporation affiliated with the Illinois Chamber of Commerce. A number of IERG member companies have facilities located along, and discharging to the waterways subject to this rulemaking. PC 1376 at 1.

One of IERG's concerns is the deficiency in the record related to the known chlorides problem that results from de-icing. PC 1376 at 2. IERG states that it had raised this issue in pre-first notice comments, but it was not addressed in the first-notice opinion. IERG reminds the Board that it previously stated that "without a use attainability analysis for chlorides, the Board has no basis for determining whether the proposed aquatic life uses are attainable, as required by the CWA". PC 1376 at 6. IERG notes that it has been working with IEPA to develop draft language and best management practices (BMPs) for chlorides during the winter months, which it planned to submit in Subdocket D proceedings. *Id.* IERG stated that this approach was recently changed, with IEPA stating that it believed the issue of chlorides could be addressed in the permitting process via compliance schedules or the development of a TMDL [total maximum daily load]. PC 1376 at 7. This is of concern to IERG because of what "it perceives to be deficiencies in the Board's record, as well as a failure to consider whether chloride levels due to road de-icing precludes attainability of the aquatic life uses proposed by the Board". *Id.*

IERG opines that neither the CAWS nor the LDPR UAA (Attach A and B) analyses studied that impact of chlorides due to road deicing, or the feasibility of attaining the 500 mg/L chloride standards. PC at 1376 at 10. IERG notes that IEPA testified to the fact that "adoption of the 500 mg/L proposed chloride standard will result in violations during winter months and compliance concerns for dischargers to the water bodies". *Id.* To address this issue IERG asks that the Board do one of three things: 1) create a Subdocket F to address chlorides; 2) amend its use designations to recognize that chlorides pose limits to aquatic life uses during the winter and adopt water quality standards in Subdocket D to reflect this; or 3) include practical compliance options for chloride dischargers rather than the 500 mg/L proposed by IEPA. *Id.*

IERG raises a second concern regarding the proposed designation of the UDIP as General Use, noting that the "General Use standards include those derived for protection of more than just aquatic life uses". PC 1376 at 4. As an example, IERG points to: "Section 302.210 in the General Use standards is entitled 'Other Toxic Substances,' and specifically identifies harm to human health as one of the bases for deriving standards, should arguably not be included in the

mix of standards necessary to protect the aquatic life use designation of the UDIP”. *Id.* IERG suggests that it would be easier for the Board to propose a UDIP-specific aquatic life use and establish water quality standards in Subdocket D. IERG further notes that changes to the General Use standards applicable to all waters of the state “will result in confusion among the regulated community located throughout the state that are subject to the General Use water quality standards”. *Id.*

IERG responds to the Board’s question as to when the General Use water quality standards should become effective, immediately upon the completion of Subdocket C or waiting until the close of Subdocket D. PC 1376 at 5. Citing requirements in the Illinois Administrative Procedures Act, IERG opines that it is inadvisable to wait to finalize the provisions of Subdocket C until Subdocket D is complete. IERG also suggests that the Board postpone “the effective date for the UDIP redesignation in the Subdocket C rulemaking until the corresponding Subdocket D water quality standards are final and effective”. *Id.*

Citgo Petroleum Corporation & PDV Midwest, LLC (PC 1377)

On July 1, 2013, Citgo Petroleum Corporation & PDV Midwest, LLC (Citgo/PDV) submitted comments. Citgo/PDV supports the definition of ALU B waters as proposed by the Board because it contains important clarifications to the language proposed by IEPA. PC 1377 at 1. Citgo/PDV states that due to the vagueness of the proposed IEPA definitions of the “various ‘uses’ and the proposed water quality standards, it appeared that the IEPA was proposing an ‘upgrade’ in use” for the Lower CSSC, which Citgo/PDV does not believe there is justification to do. PC 1377 at 2. According to Citgo/PDV, the Lower CSSC fits at UAA Factors 3, 4, and 5 to justify a designation of less than meeting the CWA goals. Citgo/PDV notes that the record is “replete with references to the poor habitat conditions for aquatic life along the Lower Ship Canal”. PC 1377 at 3.

Citgo/PDV specifically supports the inclusion of fish species as examples to provide context to the description that will be helpful in Subdocket D. PC 1377 at 1. Because of these clarifications, Citgo/PDV no longer seeks to propose an ALU C for the Lower CSSC. However, Citgo/PDV requests the Board add a reference to the ALU B definition that among the uses for the Lower CSSC is “hosting” an invasive species barrier, including the current electric fish barrier. PC 1377 at 2. Citgo/PDV provides suggested language for the Board to include in the ALU B definition. PC 1377 at 9.

These waters are also used for the purposes of one or more invasive species barriers, to prevent or minimize the migration of invasive species between the Lake Michigan Basin and the Illinois River basin. *Id.*

Citgo/PDV provides responses to several of the questions raised by the Board in its first-notice opinion. PC 1377 at 6. One relates to understanding the relationship between the aquatic life use designation definitions as proposed by IEPA and their corresponding water quality standards. Citgo/PDV notes: “Given the role of uses being set first and then water quality standards as necessary to protect those uses, there does not seem to be any way to reconcile the Docket D proposal of the IEPA with Docket C Uses”. *Id.*

The Board also raised a question regarding the meaning of the terms “tolerant, intermediately tolerant, and intolerant”. PC 1377 at 7. Citgo/PDV shares the Board’s confusion as what these terms mean, however, Citgo/PDV supports the Board’s listing of species and notes that it is based on the UAA and hence supported by the record for the CSSC. *Id.*

Citgo/PDV provides an observation regarding the issue of connectivity among the stream segments, which was raised by the Board. PC 1377 at 8.

Our only point on this issue is that the invasive species barrier is a critical example of how “connectivity” between different parts of the CAWS can have adverse effects and need to be taken into account. “Fish swim” can be both good and bad for aquatic life in the CAWS, as the Asian carp testimony amply demonstrates. *Id.*

Stepan Company (PC 1378)

On July 1, 2013, Stepan submitted comments to the Board and begins by noting the changes in use designation proposed by the Board could significantly impact Stepan because Stepan’s Millsdale facility discharges into the UDIP. PC 1378 at 1. Stepan disagrees with the proposed designation of the UDIP as a General Use water, citing evidence submitted by Midwest Generation, ExxonMobil, and other participants in this rulemaking. PC 1378 at 2. Stepan contends that the “UDIP long has been and remains an impounded, effluent-dominated water that is used for commercial navigation and is impacted by recurrent combined sewer overflow events and that all of these characteristics have resulted in a severely limited habitat”. *Id.* Stepan further notes that no evidence was offered that these conditions can be reversed either in the short or long term. *Id.*

Stepan raises concerns with designating the UDIP as General Use for aquatic life but not for recreational purposes, contending this “does not fit the default nature of the General Use category or its basic structure”. PC 1378 at 4. Stepan prefers waiting to change the UDIP aquatic life designation until Subdocket D, rather than delaying the effective date of Subdocket C. *Id.* Stepan suggested that delaying the UDIP aquatic life use designation “is more consistent with the CWA” where states simultaneously change both the use designation and water quality standards and submit to USEPA for approval. *Id.* Delaying also allows for additional testimony to be received during Subdocket D. Stepan cautions that the Board cannot simply take no action on the UDIP aquatic life use designation in Subdocket C. PC 1378 at 5. This would “risk the implicit conclusion that the UDIP is designated as General Use or perhaps that the UDIP is designated only as an Incidental Contact Recreation Water to which no standards apply to protect aquatic life uses”. *Id.* To resolve this problem, Stepan proposed language for Section 303.237. Stepan also suggests that their preference is to not adopt any changes in Subdocket C, deferring all aquatic life use changes until the close of Subdocket D. PC 1378 at 7.

Stepan suggests that use of such terms “tolerant” and “moderately tolerant” as it relates to fish species is unnecessary. Listing individual fish species in the definitions of ALU A and ALU B waters is also not needed. *Id.* Stepan notes the Board’s concern with there being no clear connection between the aquatic life use designations and “biologic intent”. Stepan points out

that none of the water quality narrative definitions include such connections, nor do they include a reference to specific fish species. PC 1378 at 8. Stepan argues that the evidence cited by the IEPA to support the use of “tolerant” and “moderately tolerant” demonstrates why the use of such terms is inappropriate. *Id.* Stepan states that these terms are undefined, are not required by federal law, and are not part of a “systematic state-wide scientific approach”. PC 1378 at 11. In addition, Stepan argues that inclusion of specific fish species “has no significant regulatory impact”. PC 1375 at 11 and 12.

Stepan notes inconsistencies in the language in Section 303.204, which need to be addressed. PC 1378 at 3. Stepan identifies typographical errors that require correction. PC 1378 at 13 and 14.

Chemical Industry Council of Illinois (PC 1379)

On July 1, 2013, CICI submitted comments. CICI is a “statewide trade association representing the chemical industry in Illinois. CICI represents 211 member companies employing more than 45,000 workers at an average annual wage of \$80,748 in 726 manufacturing facilities and 877 wholesale and distribution facilities in Illinois”. PC 1379 at 1. CICI believes that several components of the proposed rule warrant clarification before moving on to second notice. *Id.*

CICI summarizes the Board’s proposal for UDIP, indicating the Board did not concur with the designated aquatic life use proposed by IEPA, designating this segment as General Use. *Id.* CICI argues that the UDIP cannot meet CWA goals, but rather, “CICI supports an aquatic life use designation, whether as originally proposed by [I]EPA or as currently designated, that recognizes the inherent limitations of the UDIP to fully attain the CWA goals, and that the designation is not as a General Use water”. PC 1379 at 2. *Id.*

CICI asserts that there are physical and associated biological conditions that prevent the UDIP from meeting CWA aquatic life use goals. *Id.* One of these conditions is the “presence and established operation of dams and navigation within the waterway, and the continued urban development and influx of sediment and contaminants which directly and indirectly preclude irreversible hydrologic, physical, and biological attributes within the system”. PC 1379 at 3. CICI cites Ohio Habitat Qualitative Habitat Evaluation Index (QHEI) scores for the study area as showing “poor individual metric scores associated with sedimentation, riffle habitat, hard substrate occurrence and frequency, and in-stream cover as examples [of] key variables exhibiting less than desirable status for attaining CWA aquatic life goals”. *Id.* CICI states that these variables have been shown to be “directly and indirectly influenced by the physical and hydrologic effects of irreversible dam operation, navigational barge traffic, and sediment influx, and thus, also became irreversible QHEI habitat features of the waterway system”. *Id.*

CICI discusses the influx of sediment to the system “as an irreversible condition based on consistent source loading, which is due to irreversible watershed development and resuspension/redistribution of existing within-channel sediments”. *Id.* According to CICI, these sediment problems are “a direct physical response to irreversible dam operation (high rate water level fluctuation) and navigational barge traffic”, which also limit “fish spawning, rearing, and

foraging potential for several species that may otherwise occur as a sustainable population”. *Id.* These conditions, CICI concludes, are “appropriate factors for consideration” of UAA Factors 3, 4, and 5. *Id.*

CICI argues that there is “no requirement under the CWA for consideration of both habitat and water quality factors for aquatic life use designations”. PC 1379 at 4. CICI notes that in the UDIP “where the physical habitat conditions are more limiting than water quality factors, these limitations prevent the attainment of aquatic life protection uses, rather than reduce the ability to maintain aquatic life protection uses”. *Id.* CICI further argues that chemical water quality is not related to habitat and will not predict or improve habitat quality. *Id.*

CICI next addresses a question the Board raised in the First Notice, which is how to consider connectivity of the larger aquatic system in designating aquatic life use. CICI contends that, while connectivity is important, “the protection of the downstream water body is considered in the implementation of water quality standards/criteria or wasteload allocations, and not in the designation of use of a water body”. *Id.* CICI further states that “The UDIP’s designated aquatic life use should be established independently of considerations for downstream water bodies and should consider the unique characteristics that differentiate it from any other General Use water.” *Id.*

CICI urges the Board to carefully consider the implications of the proposed General Use designation for the UDIP. PC 1379 at 5. For example, CICI notes that while the water quality standards proposed by IEPA are “nearly identical” to General Use standards, 35 Ill. Adm. Code 302.Subpart F applies to General Use waters. Subpart F adds numerous water quality criteria that must be assessed. *Id.* CICI urges the Board to “carefully evaluate the application of Subpart F requirements to the UDIP, especially given its unique nature, and delay its final aquatic use designation for the UDIP in this Subdocket C until the record is more fully developed in Subdocket D on the consequences of General Use designation”. *Id.*

Ingredion Incorporated (PC 1380)

On July 1, 2013, Ingredion submitted comments. Ingredion reiterates its concern with the proposed ALU B designation for the CSSC. Ingredion also note their proposed alternate ALU C designation for the CSSC, which was not adopted by the Board at First Notice. PC 1380 at 2.

Ingredion disagrees with the Board’s aquatic life use designation for the CSSC, and “reaffirms its position that the unique characteristics of the Sanitary & Ship Canal justify a Use C designation”. PC 1380 at 3. Ingredion notes that its ALU C designation was intended to apply to the entire CSSC and not be restricted to the lower CSSC as indicated in the Board’s First Notice. *Id.* Ingredion believes that by past testimony and comments, it has demonstrated the “the unique characteristics of the Sanitary & Ship Canal justify a Use C designation. Such a Use C designation would be appropriate for the entire Sanitary & Ship Canal”. *Id.*

Ingredion concludes their comments by asking the Board to allow thirty days for participants in this rulemaking to respond to USEPA’s comments submitted on June 27, 2013.

According to Ingreion, USEPA's comments contain new information not available to participants before now". *Id.*

Midwest Generation (PC 1381)

On July 1, 2013, Midwest Generation submitted comments to the Board. PC 1381 at 1. Midwest Generation raises concerns with the Board's proposed General Use designation for the UDIP. PC 1381 at 2. First, Midwest Generation does not agree with the Board's conclusion that none of the six UAA Factors apply to the UDIP, arguing that the Board did not address the extensive testimony and data submitted demonstrating that at least one UAA Factor applied to the UDIP. Midwest Generation further argues that "[t]he Subdocket C evidence was sufficient to rebut the presumption that the UDIP can attain the CWA fishable goal." *Id.*

Second, Midwest Generation opines that the proposed General Use designation of the UDIP conflicts with the Board's findings in Subdocket A, wherein the Board found that at least one UAA Factor applied to the UDIP as it relates to recreational use. Midwest Generation argues that the same "combination of channelization, barge traffic, effluent domination, and effects of CSOs" that the Board found to satisfy UAA Factor 3 for the recreational goal has similar negative impacts to aquatic life. PC 1381 at 2 and 3. Midwest Generation believes that the Board's decision in Subdocket A and its first-notice opinion "cannot be clarified or reconciled". PC 1381 at 9. According to Midwest Generation, "[t]he General Use designation includes both recreational and aquatic life uses." *Id.*

As a result of these concerns, Midwest Generation suggests the Board reconsider its proposed General Use designation for the UDIP, and instead, adopt the UAA Aquatic Life Use previously proposed by Midwest Generation. PC 1381 at 3. This definition reads:

302.237 Upper Dresden Island Pool Aquatic Life Use Waters

Lower Des Plaines River from the Brandon Road Lock and Dam to the Interstate 55 Bridge shall be designated for the Upper Dresden Island Pool Aquatic Life Use. These effluent-dominated, urban-impacted waters are capable of maintaining warm water aquatic-life populations consisting primarily of lentic species of tolerant and intermediately tolerant types that are adaptive to the impounded, channelized and artificially-controlled flow and widespread siltation conditions created by the operation of the locks and dams that are necessary to maintain the existing navigational use and upstream flood control functions of the waterway system. *Id.*

Midwest Generation suggests that if the Board does not adopt its proposed UDIP aquatic life use definition, then it "must prevent the immediate application of the General Use water quality standards to the UDIP". PC 1381 at 4. Midwest Generation opines this can be accomplished either by postponing the adoption of the General Use designation and maintaining the Secondary Use designation until the completion of Subdocket D, or identifying in Subdocket C an effective date for the General Use designation of the UDIP that corresponds to the conclusion of Subdocket D. *Id.* Midwest Generation raises the point, however, that a delay in

adopting Subdocket C could conflict with the Illinois Administrative Procedures Act requirement that rules be adopted no more than one year after the date the first notice was published in the *Illinois Register*, which is March 15, 2014. PC 1381 at 7 and 8.

Midwest Generation supports the Board's proposed Aquatic Life Use B designation for the CSSC and the Brandon Pool waters. Concerns are raised, however, regarding USEPA's comments and questions on the adequacy of the Board's justification for the application of the Aquatic Life Use A and B to certain segments of CAWS. *Id.*

Midwest Generation notes the Board states that it will examine the water quality standards for the UDIP in Subdocket D to ensure it can meet General Use standards. Midwest Generation argues this suggests the Board is uncertain as to whether the UDIP can meet the General Use standards and is in conflict with the federal UAA rules that "do not articulate a mechanism for applying different water quality standards for particular water once a State designates that water as attaining the CWA goals." PC 1381 at 10-11. Midwest Generation questions the Board's legal authority to modify the General Use water quality standards while identifying UDIP as a General Use water. *Id.* at 11.

Midwest Generation presents several arguments in support of its position that the Board's first-notice opinion incorrectly classified UDIP as General Use. Midwest Generation argues that while the Clean Water Act presumes that all waters can meet the goal of fishable, that presumption is clearly a rebuttable presumption. PC 1381 at 11. Midwest Generation opines that the first-notice opinion does not appear to apply the rebuttable presumption legal standard to the UAA factors. *Id.* at 12. Midwest Generation maintains it presented extensive evidence that the UDIP satisfied at least one of the six UAA factors, thus rebutting the Clean Water Act presumption. *Id.* Midwest Generation asserts that the Board "summarily rejected this overwhelming body of evidence" and instead concluded generally that Midwest Generation failed to present adequate proof that the UAA factors applied. *Id.*

Midwest Generation notes that the first-notice opinion correctly recognizes that the UDIP is not a naturally flowing or free flowing river system; however, the Board ignored the impacts of these shortcomings on the ability of the UDIP to support aquatic life. PC 1381 12-13. Midwest Generation argues that 93% of the UDIP is impounded and 100% of Brandon Pool is impounded. Yet the Board applied UAA Factor 4 to Brandon Pool, but not the UDIP. *Id.* at 13. Midwest Generation speculates that the Board's decision that the dams did not impair the UDIP was in reliance on testimony by Dr. Thomas and the status of the Fox River. *Id.* Midwest Generation argues that to compare UDIP with the Fox River is inappropriate as there has not been a UAA performed on the Fox River. *Id.* at 14. Midwest Generation points to several factors regarding the Fox River that it opines leads to a conclusion that the Fox River itself is impaired. *Id.* at 14-15. Likewise, Midwest Generation argues that Dr. Thomas' testimony does not support a finding that the UAA Factor 4 does not apply. *Id.* at 16. Midwest Generation states:

The evidence presented by Midwest Generation, through its expert aquatic biologist, Greg Seegert, coupled with the LDPR UAA [Attach A] and the 2005 Fox River Study, showed that the locks and dams create a deep pool environment

that is lacking in coarse substrate, channel diversity, riffle habitat, and gradient.
Id.

Thus, Midwest Generation concludes that UAA Factor 4 does apply. *Id.* at 17-18.

Midwest Generation also argues that the Board's decision that the UAA Factors do not apply is contrary to the Board's decision in Subdocket A. *Id.* at 18. Midwest Generation maintains that the Board's findings in Subdocket A that UAA Factor 2, human caused conditions, is equally applicable for aquatic life use determinations. *Id.* at 19. Midwest Generation asserts that because the conditions remain the same, it is arbitrary to conclude that UAA Factor 3 does not equally apply for aquatic life use designations in the UDIP. *Id.* at 20.

Midwest Generation states that "[i]n Illinois, a quasi-legislative decision is reviewed pursuant to the arbitrary and capricious standard." PC 1381 at 23. This standard, includes three criteria, one of which states that an IEPA's action is arbitrary and capricious if it "offers an explanation for its decision which runs counter to the evidence before the IEPA, or which is so implausible that it could not be ascribed to a difference in view or the product of IEPA expertise." *Id.* Midwest Generation asserts that the Board failed to provide its reasons for its decisions, particularly in light of the "substantial evidence that Midwest Generation presented in this rulemaking". PC 1381 at 24. As a result, Midwest Generation argues that the Board's first-notice opinion "appears to be arbitrary and capricious because it cannot be reconciled with the totality of the testimony and evidence in the Subdocket C rulemaking which clearly rebuts the presumption that the UDIP could attain the CWA's "fishable" goal." PC 1381 at 28.

Midwest Generation provides comments on a question the Board raised regarding the inclusion of examples of fish species in the definitions of Aquatic Life Use A and B waters, and for the use of the terms "tolerant" and "intolerant" in these definitions. PC 1381 at 25. Midwest Generation agrees that the fish species included in the definition for Use B waters have been found in these waters; however, if the Board intends to retain examples of fish species in these definitions, Midwest Generation recommends adding the common carp to the list "because it is one of the most abundant fish species found in Use B Waters and is particularly representative of a "tolerant" fish species found in these waters. PC 1381 at 26-27.

Because the Board did not raise the question regarding the meaning of the various levels of "tolerance" in Subdocket C, Midwest Generation asks the Board to consider deferring the effective date of the proposed use designations until the completion of Subdocket D and invite participants to address this question further in Subdocket D to determine whether further revisions to the proposed definitions for Use A and B waters is warranted. PC 1381 at 27.

Environmental Groups (PC 1382)

On July 1, 2013, comments were submitted by the Environmental Groups. PC 1382 at 1. The Environmental Groups support all but one of the Board's proposed Aquatic Life Use Designations, believing that "the Board effectively balanced the weight of the evidence to arrive at improved aquatic life goals that will guide a long-neglected system toward a more ecologically-sound future". *Id.*

The Environmental Groups' comments are focused on two issues, the Board's proposed ALU definitions, and the designation of three specific segments, Brandon Pool, Upper Dresden Island Pool, and Lower North Shore Channel.

Aquatic Life Use Definitions

The Environmental Groups believe that adding examples of species to the definitions of Aquatic Life Use definitions provides clarity, although they note the final rules should be clear that the species listed in these definitions are only examples. All species present are to be protected. PC 1382 at 2. The Environmental Groups ask the Board to clarify in the record that the "Aquatic Life Use A and Aquatic Life Use B designations are meant to protect the described fish communities throughout their life cycles". *Id.*

The Environmental Groups note that the proposed definitions for ALU A and ALU B include language they find confusing. Specifically, they are confused by the use of the word "adaptive" in stating the waters designated as such "are "not presently capable of maintaining a balanced, integrated, adaptive community of warm-water fish". *Id.* They note that use of the word "adaptive" could imply that "tolerant" species are "adaptive" to adverse environmental conditions. The Environmental Groups recommend deleting "adaptive" from these definitions. PC 1382 at 3.

The Environmental Groups point out a slight difference in wording in the definitions of ALU A and ALU B waters that should be reconciled to avoid problems with future interpretation of the rules. *Id.* "ALU A describes a "community of warm-water fish and macroinvertebrates," while ALU B describes a "community of warm-water fish and macroinvertebrate community." The Environmental Groups recommend the language in ALU A be used for both definitions. *Id.*

The Environmental Groups note that the Board asked the question of whether the "General Use" water quality criteria should become effective immediately for those waters that are proposed to be designated as General Use, the Chicago River and UDIP. *Id.* The Environmental Groups opine that thermal criteria in the UDIP are the only criteria expected to be at issue for these two segments. The Environmental Groups, therefore recommend that after "hearing the evidence regarding temperature that has not yet been heard, the Board should ultimately adopt all the General Use thermal criteria for the Upper Dresden Island Pool in Subdocket D". Further, all "General Use criteria except thermal criteria for the Upper Dresden Island Pool should immediately come into effect at the time the Board adopts General Use designations for those waters". *Id.*

In response to the Board's invitation to comment on how to "reconcile the record's focus on individual stream segments with the need to address larger aquatic systems and connectivity inherent to such systems", the Environmental Groups note that "the overall effect of the Board's proposal to designate almost all waters at issue in this case as Aquatic Life Use A addresses that "big picture" issue". PC 1382 at 3 and 4. The Environmental Groups further note that the "broad strokes of the proposed designations allow fish to travel through these waterways to access higher quality habitat tributary to these waterways". For this reason, the Environmental Groups support the Board's proposed designation of the Chicago River as General Use. PC 1382

at 4. “Further, the Environmental Groups recommend that the current General Use designation be retained for the Calumet River upstream of the O’Brien Lock and Dam” because this waterway “is directly connected to Lake Michigan, which has high water quality”. *Id.*

Stream Segments

The Environmental Groups also provide comments on three stream segments: Brandon Pool, UDIP, and Lower North Shore Channel.

Brandon Pool. The Environmental Groups maintain their position that Brandon Pool should be designated as ALU A because the Board is “obligated by law to protect existing uses of our waterways”. They observe that while in some circumstances it is acceptable to “weigh the value of available habitat against the value of water quality data in order to determine the highest attainable aquatic life use”, it cannot be ignored that a “community of moderately tolerant fish species already exists in the Brandon Pool”. PC 1382 at 5. The Environmental Groups note that “every one of the species proposed to represent Aquatic Life Use A assemblages has been collected in the Brandon Pool area, and that based on IDNR fish sampling data, “two-thirds of the fish species present in the Brandon Pool are considered moderately tolerant”. *Id.* This includes such species as “sauger, bluegill, largemouth bass, walleye, and northern pike” and sport fish such as “rainbow trout, northern pike, bluegill, black crappie and largemouth bass”. *Id.*

The Environmental Groups state that it is important to designate the aquatic life use for the Brandon Pool because of its ecological connectivity. The “Des Plaines River meets the Chicago Sanitary and Ship Canal here, providing fish access to much better habitat upstream”. *Id.* They note that the Board’s First Notice Opinion “does not acknowledge the good habitat available directly adjacent to the Brandon Pool at Des Plaines River mile 290.1. PC 1382 at 5 and 6. The Environmental Groups opine that the “burden is not on environmental groups to show that a use can be attained, it is on those who would lower the use to show that it cannot”. PC 1382 at 6. Finally, they argue that “presence of moderately tolerant and intolerant species suggests that this waterway has a higher attainable use than the Board has given it credit for in its first notice proposal”. *Id.*

Upper Dresden Island Pool. The Environmental Groups agree with the Board’s designation of the UDIP as General Use. They note that the QHEI scores demonstrate that fish in the UDIP have access to good habitat and that water quality is generally good. The Environmental Groups also “agree that not one of the UAA factors has been demonstrated for the Upper Dresden Island Pool and that the water should be designated General Use”. *Id.*

Lower North Shore Channel. The Environmental Groups note that the Board’s Opinion and Order proposed to designate the Lower North Shore Channel as ALU A; however, the “narrative on pages 184-185 fails to state the proposed designation”. They suggest this error can be corrected prior to Second Notice. *Id.*

Responses to USEPA Comment (PC 1372)

Midwest Generation (PC 1383)

Midwest Generation's comments relate primarily to the concerns raised by USEPA regarding the CSSC and Brandon Pool, and USEPA's observations regarding UAA Factors 3, 4, and 5, which "do not appear to be consistent with the plain language of the UAA regulation". PC 1383 at 2. Midwest Generation asserts that UAA Factors 3, 4, and 5 apply to both the CSSC and Brandon Pool "because of human caused conditions and the lack of natural features in the waterways". PC 1383 at 10. Midwest Generation agrees with the Board's conclusion that these waters cannot attain the CWA goals because of "the flow regulation/modification, municipal point sources, CSO, urban runoff during storm events, channelization and hydromodification". Further, Midwest Generation believes the Board "correctly and sufficiently described the negative impacts of these hydromodifications that limit the CSSC and Brandon Pool to the attainment of the Aquatic Life Use B ("ALU B") designation". *Id.*

UAA Factor 3. Midwest Generation addresses a question raised by USEPA as to their reliance on the projected completion of the Tunnel and Reservoir Project (TARP) project, believing that this will "cure the conditions created by these pollution sources". PC 1383 at 10. Midwest Generation notes that the TARP project will not be completed until 2029, which is more than fifteen years from now. Until then, CSO discharges and their pollutant loads will continue. PC 1383 at 10 and 11. UAA Factor 3 requires that the conditions "cannot be remediated" and note that they can "never" be remediated. PC 1383 at 11. Midwest Generation notes that "Interpreting UAA Factor 3 to cover adverse conditions that cannot be remedied for well over a decade is consistent with the Clean Water Act's framework for reviewing use designations." *Id.*

Midwest Generation notes that USEPA's position that UAA Factor 3 does not apply to CAWS because CSO discharges will not be remediated until 2029 is inconsistent with a position USEPA articulated in a June 26, 2012 letter USEPA wrote to the District regarding a variance request. *Id.* In the June 26, 2012 letter, USEPA "agreed that the CSOs were a human caused condition that could not be remedied within a reasonable time period". PC 1383 at 12. Midwest Generation opines that the inconsistent interpretation of UAA Factor 3 by USEPA should not dictate the Board's findings in Subdocket C. PC 1383 at 12.

Midwest Generation argues that the "Subdocket C record is replete with information that satisfies the requirements of UAA Factor 3". PC 1383 at 15. These adverse effects include a significant pollutant load from the CSOs and other wet-weather sources that will continue to impact DO levels in CAWS even after completion of the TARP project in 2029. PC 1383 at 16. Midwest Generation also notes that the watershed in which Brandon Pool exists was almost 60% urbanized twenty year ago and has become even more urbanized since. PC 1383 at 16 and 17. Midwest Generation states that there is scientific evidence to demonstrate that biological measures of quality decline when the percent urban area is 8-50%, which the area of Brandon Pool exceeded twenty years ago. PC 1383 at 17.

UAA Factor 5. Midwest Generation addresses the concern of USEPA that there was insufficient evidence in the record to show that low flow conditions in CAWS are related to “natural features”. *Id.* Midwest Generation opines that “UAA Factor 5 is not limited to just flow conditions, but also includes any physical condition related to the natural features of the water body”. PC 1383 at 18. These factors include lack of proper substrate, cover, flow, depth, pools, and riffles. According to Midwest Generation, any “unnatural flow conditions, not just ‘low flow’, can satisfy UAA Factor 5”, and the Subdocket C record contains ample evidence to show that the “unnatural” flow conditions in the CSSC and Brandon Pool, dictated by the presence of locks and dams, precludes attainment of the CWA goal. *Id.*

Midwest Generation further explains that the flows in CAWS are “erratic, unpredictable, and completely unnatural because they are based upon the urban requirements of a commercial waterway”. Water depths in CAWS can reportedly change 4 to 6 feet within a 24 to 48 hour period, according to Midwest Generation. *Id.* Midwest Generation cited the numerous experts who testified about the flow conditions in CAWS, including Dr. Thomas Granato, Paul Freedman, and Richard Lanyon. PC 1383 at 19. Midwest Generation argues that “the Subdocket C record is replete with data and testimony regarding the erratic high and low flow conditions in the CSSC and Brandon Pool which is sufficient to justify the Board’s findings that UAA Factor 5 applies”. PC 1383 at 22.

Midwest Generation discusses the consequences of a waterway that has atypical and unpredictable flows. Many experts consider the flow regime to be “the key driver of river and floodplain ecosystems because ‘flow is a determinant of physical habitat in streams’”. *Id.* Midwest Generation noted that “IEPA and Chris Yoder agreed that the sudden and severe flow fluctuation can disrupt fish feeding and spawning”. PC 1383 at 23. Midwest Generation asserts that conditions in the CSSC and Brandon Pool “are not conducive to maintaining a healthy and viable aquatic community”, and these conditions cannot be changed because they are a result of navigation, which is a protected use. *Id.*

UAA Factor 4. Midwest Generation asserts that there is a “strong rationale to support the Board’s findings that dams and hydromodifications preclude attainment under UAA Factor 4, although USEPA has asked the Board to strengthen their evidence to support this finding. PC 1383 at 23. Midwest Generation notes that the “majority of CAWS is impounded and controlled by a lock and dam system. *Id.* Further, a significant amount of evidence has been presented in this rule-making to demonstrate the “adverse and detrimental effect of an impounded system on maintaining a viable and health [sic] aquatic community”. PC 1383 at 24. Midwest Generation notes that the addition of the Aquatic Species Nuisance Barrier Project provides further evidence that “extensive hydromodifications in the CSSC prevent it from supporting a diverse and healthy aquatic system”. *Id.*

Midwest Generation notes that one of the first studies IEPA entered into the record “concluded that the dams and hydromodifications prevent CAWS from attaining a high quality life use”. *Id.* Experts also provided scientific evidence for the “finding that dams like those in the CSSC and Brandon Pool change a waterway system from its original riverine nature to a modified lake-like environment”. *Id.* This change “causes most of the physical limitations in a waterway by eliminating riffles, reducing the amount of fast water, increasing sedimentation,

disrupting normal sediment flow, interrupting or eliminating migration, reducing the number and variety of aquatic insects, and reducing habitat complexity”. PC 1383 at 24 and 25.

USEPA also asked the Board to strengthen its reasoning for concluding that it was not feasible to “restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use”. PC 1383 at 26. Midwest Generation asserts that the CSSC “cannot be restored to its “original condition” by the very nature of its man-made origins, at least not without completely obliterating its protected navigational and flood control uses”. *Id.* Midwest Generation notes that evidence shows that it is not “feasible to modify the lock and dam operations to the extent necessary to achieve Clean Water Act’s fishable use without unacceptable constraints being imposed upon both navigation and flood control”, both of which are existing uses in the CSSC and Brandon Pool. *Id.* Without such changes being made, “the impounded nature of the water way and the artificial modifications to the stream channel prevented the feasibility of an improved fish community”. PC 1383 at 28.

Midwest Generation discusses the adverse effects of having the dams in the CSSC and Brandon Pool exist relatively close together, which further degrades habitat. The Lyons study is cited by Midwest Generation as demonstrating that as the “number of dams increased and the spacing between the dams decreased, the quality of habitat and its ability to maintain a robust aquatic community decreased substantially”. PC 1383 at 29.

Midwest Generation addresses a concern raised by USEPA regarding the Board’s conclusion that the hydromodifications present in the CSSC and Brandon Pool prevent attainment of ALU A. PC 1383 30. Midwest Generation asserts that the “Board was correct in finding that Brandon Pool conditions and constraints justify a Use B classification”, and that evidence was provided to show that the CSSC has similar conditions to Brandon Pool, thus supporting its designation as ALU B. Midwest Generation reports QHEI scores for both the CSSC and Brandon Pool showing “overall poor habitat”, with mean scores for the CSSC in the Lockport Pool ranging from 40.8 to 46.1, with Brandon Pool’s scores only slightly higher in the upper 40s to low 50s. PC 1383 at 30 and 31. Midwest Generation notes that fish assemblages for both segments are also similar, with 86% of the fish species found in the CSSC being comprised of eight tolerant fish species. PC 1383 at 31.

Definitions. USEPA questioned the Board’s proposed language for ALU A and ALU B. Midwest Generation addresses the proposed definition of only ALU B because it does not discharge into ALU A waters. PC 1383 at 33. Midwest Generation contends that the Board’s proposed language attempts to clarify the meaning of the ALU B designation and supports the description of the waterway and the protected uses included in the definition. PC 1383 at 34. According to Midwest Generation, USEPA also disagreed with the Board’s inclusion of fish species in the definitions because the examples did not include other aquatic life. *Id.* Midwest Generation recommended that the Board revise “tolerant fish species” to “tolerant aquatic populations” to address USEPA’s concern and to include the “common carp” as an example of a tolerant species. PC 1383 at 35. Midwest Generation also notes that there is “no prohibition in the UAA federal regulations against including examples of the protected species in use designation language”. *Id.*

Environmental Groups (PC 1384)

The Environmental Groups agree with many of the comments submitted by USEPA regarding the proposed use designation for the CAWS and LDPR. PC 1384 at 1. The Environmental Groups particularly agree that the presence of pollutants from CSOs and other pollutants should not be the basis for designating the waterways as less than fishable. *Id.* The Environmental Groups share USEPA's concern that the aquatic life use standards should protect all aquatic life not just fish. *Id.*

The Environmental Groups do not agree with USEPA that the completion of TARP will eliminate CSOs. PC 1384 at 2. However, the Environmental Groups believe that the presence of CSOs is not a sufficient basis for a designation less than fishable. *Id.*

The Environmental Groups agree with USEPA that the record does not establish that the hydromodifications present in the Brandon Pool prevent the attainment of at least ALU A. PC 1384 at 2. The Environmental Groups note that many Illinois waters are upstream of dams, and those waters are designated as General Use. *Id.* The polluted nature of Brandon Pool has not been shown to be beyond correction, according to the Environmental Groups. *Id.* The Environmental Groups argue that the hydrological connection of Brandon Pool to the Upper Des Plaines River should be considered in determining the proper use designation. *Id.*

Citgo/PDV (PC 1385)

Citgo/PDV concentrates its supplemental comments on the ALU B designation for the CSSC. PC 1385 at 1. Citgo/PDV states that the record is clear that at least three UAA Factors prevent the lower CSSC from achieving the CWA goal of fishable. *Id.* at 2. Furthermore, Citgo/PDV notes IEPA based its initial proposal on an analysis that UAA Factors 3, 4, and 5 prevented the CSSC from attaining the fishable goal and nothing in the record contradicts this analysis. *Id.* Citgo/PDV reads the USEPA comments as merely seeking clarification on the proposed language and a more complete explanation of the Board's analysis. *Id.* at 2-3.

Citgo/PDV supports the Board's opinion as a succinct analysis that the lower CSSC satisfies one or more of the UAA Factors and argues that the record amply supports the Board's conclusions and findings. PC 1385 at 3. Citgo/PDV suggests providing USEPA with an analysis as to each UAA Factor for the CSSC and offer some analysis for that purpose. *Id.*

Citgo/PDV reiterates its support for inclusion of types of species in the definition of ALU A and ALU B, but did not read the definitions as to provide for protection of only fish. PC 1385 at 3. Citgo/PDV opines that USEPA's suggestion that the word "may" be removed from the definition indicates USEPA also did not read the definitions to be so limiting. *Id.* at 3-4.

Citgo/PDV states: "The Lower Ship Canal and the Regulated Navigation Area and Black Safety Zone squarely fit Factor 3 and justify the [ALU] B designation." PC 1385 at 4. Citgo/PDV notes that the electric fish barrier in the Black Safety Zone is meant to create an inhospitable area for fish and the Board heard extensive testimony on the importance of the electric fish barrier. *Id.* Citgo/PDV repeats the testimony of Robin Garibay supporting a finding

that UAA Factor 3 prevents the CSSC from attaining the fishable goal. *Id.* at 5-7. Citgo/PDV points out that other witnesses testified as to the importance of the electric fish barrier and the potential harm if the electric fish barrier were removed. *Id.* at 7.

Citgo/PDV notes that other human caused conditions in the CSSC prevent attainment of the CWA goal of fishable as well. PC 1385 at 8. Specifically the CSSC exists in its channelized configuration for navigation and barge traffic and the CSSC is construed with vertical sides. *Id.* The CSSC is very narrow and typically has commercial and industrial activities from side to side in the channel. *Id.* The CSSC's boundaries are sheet pile walls, or granite rock, blasted at a vertical angle. *Id.*

Citgo/PDV maintains that UAA Factors 4 and 5 also support a designation of less than fishable. PC 1385 at 8. Citgo/PDV states that the record is "replete with testimony" regarding the poor habitat such as the lack of appropriate substrate. *Id.* Citgo/PDV notes that James Huff testified that the aquatic habitat is rated as poor to very poor and overall stream use is designated as "non-supportive of aquatic life and for fish consumption and aquatic life." *Id.*, citing Exh. 284 at 4. Citgo/PDV notes that the Board cited to Mr. Huff's testimony in the first-notice opinion and order and the facts relied upon by the Board justify application of UAA Factors 4 and 5. *Id.* at 10.

Citgo/PDV offers that CSOs will be reduced over the next few years with the completion of TARP; however, other features of the CSSC will remain. PC 1385 at 10. Citgo/PDV states that it is no surprise that the LimnoTech Study (PC 284) concluded:

that even if all the potential habitat improvements were undertaken, the change would be so modest as to be still within the range of the individual station scores in the reach suggesting that the changes would not likely have a significant impact on fisheries quality. *Id.*, citing PC 284 HER at 53.

Citgo/PDV expresses surprise that USEPA is seeking justification for including the CSSC as ALU B rather than ALU A. PC1385 at 11. Citgo/PDV opines that from the outset of this proceeding IEPA and other participants have recognized that the CSSC is different from the waters considered in the ALU A category. *Id.* In fact the District and the Environmental Groups agreed that the CSSC should be designated ALU B. *Id.*

The District (PC 1386)

In response to USEPA's comments, the District notes that the UAA is a structured scientific assessment of factors that impact attainment of the CWA goals. PC 1386 at 2. The CAWS UAA (Attach B) demonstrated that these waterways have unique habitat conditions and that none of the waterbodies could achieve the CWA aquatic life use goal. *Id.* IEPA proposed two levels of biological potential applying to the CAWS and found that UAA Factors 3, 4 and 5 preclude the attainment of the CWA goal. *Id.* at 2-3. The District opines that the record, which includes the UAA, extensive testimony, and recent scientific studies, is "voluminous and unequivocal" that the CWA goal is not attainable in the CAWS. *Id.* at 3.

UAA Factor 3. The District notes that USEPA’s comment indicates its opinion that CSOs can be remedied through TARP and questions the Board reliance on UAA Factor 3 to determine that the CAWS cannot attain the CWA goal for aquatic life uses. PC 1386 at 13. The District argues that there is ample testimony and evidence regarding the magnitude, frequency, and duration of CSO events. *Id.* For example, Adrienne Nemura offered testimony on the impacts of CSO discharges to achieving aquatic life standards. *Id.* at 14, citing Exh. 465. Ms. Nemura’s testimony indicated that low dissolved oxygen levels “are likely to remain” even if CSOs could be eliminated. *Id.* The District cites to the Board’s first-notice opinion, where the Board summarized Ms. Nemura’s opinion that:

Even after TARP or potential green infrastructure measures are fully implemented, Ms. Nemura believes that the Wet Weather Limited Use will still be needed because there will still be discharges from CSOs, municipal storm sewers, and overland runoff. *Id.*, citing R08-9 (C) slip op. at 71 (Feb. 21, 2013).

The District notes that USEPA “acknowledged” that CSOs could continue after completion of TARP; thus, the record supports a finding that UAA Factor 3 applies. *Id.* at 14-15.

UAA Factor 4. The District opines that given the history of the CAWS, the record is replete with information supporting the Board’s analysis that hydromodifications prevent the attainment of the CWA goal. PC 1386 at 15. Further, the evidence in the record establishes that restoring the waterbody to its original condition is not possible. *Id.* The District reminds that CAWS consists of approximately 78 miles of manmade or altered channels that allow for commercial navigation and urban stormwater runoff. *Id.* The flow is controlled by four hydraulic structures managed by the District that allow for water levels to be lowered in anticipation of storm events. *Id.* at 16.

The District states:

In light of the waterbodies’ history, their inherent limitations due to their form and function, and the abundant facts and scientific evidence in the record further developing these topics, the notion that the hydromodifications do not preclude attainment of the CWA aquatic life goal; or that the waterbodies can be restored to their “original condition”; or that they are going to be “operated” in a way to result in attainment of the CWA aquatic life goal, has been shown to be implausible through testimony and evidence. PC 1386 at 16.

UAA Factor 5. The District argues that under the plain language of 40 C.F.R. §131.10(g)(5), various physical conditions of a waterbody can contribute to a finding that the CWA aquatic life use goal cannot be met. PC 1386 at 3. The District opines that USEPA “narrowly focuses” on the Board’s position that low flow conditions preclude attainment of the CWA goal. *Id.* The District comments that this narrow focus fails to consider the substantial testimony and evidence that UAA Factor 5 supports a finding that the CAWS cannot meet the CWA goal. *Id.*

The District cites to the testimony of Dr. Thomas Granato regarding flow reversal. PC 1386 at 4, quoting 3/3/09Tr. at 38-41. Jennifer Wasik offered testimony concerning the composition of sediments. *Id.*, quoting Exh. 187 at 9. The District notes that both Dr. Granato's and Ms. Wasik's testimony "support the position that the natural features of the CAWS including lack of a proper substrate, flow reversals, and slow water velocity, among other things, preclude attainment of the CWA aquatic life goal." *Id.*

Dr. Charles Melching testified about the low flow aspects of CAWS, and the system's physical configuration; squarely addressing the low-flow conditions, with scientific support. PC 1386 at 5, quoting Exh. 169 at 4-5. IEPA personnel, Rob Sulski, provided testimony in support of its position that the CWA goal could not be met. *Id.*, citing Exh. 1. Mr. Sulski also testified that significant nonreversible physical limitations are found in these waterbodies. *Id.* at 5, quoting Exh. 1.

LimnoTech representatives Paul Freeman and Scott Bell offered testimony and support concerning the physical limitation of the CAWS. PC 1386 at 6-11, citing and quoting Exh. 204 and 447. Dr. Scudder Mackey's testimony also supports the Board's analysis and included testimony about the impact of the "irreversible" conditions of the CAWS. *Id.* at 11-12, citing and quoting Exh. 457.

Thus, the District argues that a review of the testimony and evidence establishes that the Board's analysis was supported by an extensive record. PC 1386 at 12.

IERG (PC 1387)

IERG expresses concerns about the "timing and manner of USEPA's input" in this proceeding. PC 1387 at 2. IERG notes that the Board and USEPA play separate and unique rolls in rulemaking setting water quality standards. *Id.* IERG states:

When USEPA steps beyond its statutorily defined role in the water quality standard approval process and participates in a rulemaking, information introduced into the record by USEPA must be weighed consistently with similarly submitted evidence by other participants. *Id.*

IERG disagrees with the comments made by USEPA regarding use designations and the applicability of bacteria criteria to waters throughout Illinois. *Id.*

USEPA Involvement. IERG describes USEPA's involvement in R08-9, noting that USEPA has been involved in a variety of ways. PC 1387 at 2. USEPA advised IEPA on the development of the UAAs and IEPA's proposal. USEPA approved and disapproved regulations adopted by the Board and also provided comments directly to the Board. *Id.* Specifically, IERG notes that in PC 286, USEPA's comments "introduce little, if any, additional substantive scientific evidence into the record". *Id.* at 3. In PC 1337, USEPA approves and disapproves regulations adopted by the Board. In PC 1372, USEPA addresses the Board' proposal in Subdocket C and encourages IEPA to adopt bacteria criteria for water throughout Illinois. *Id.*

And according to IEPA, USEPA has been in discussion with IEPA concerning standards proposed in Subdocket D. *Id.* at 4.

Board Should not Give Undue Weight to USEPA's Comments. IERG opines that USEPA's role in this rulemaking proceeding should be differentiated from USEPA's role under the CWA. PC 1387 at 4. IERG explains that the Board must weigh evidence in the record to reach a determination as to whether or not to adopt IEPA's proposal; and, after the Board takes action, USEPA may approve or disapprove the water quality standards. *Id.* at 5. IERG argues that USEPA's comments should not be "confused with approvals and disapprovals under Section 303(c) of the CWA." *Id.* Furthermore, the comments should be given less weight than sworn testimony at hearing. *Id.*

IERG argues that Section 5 of the Act (415 ILCS 5/5 (2012)) "gives the Board the 'authority to act for the State in regard to the adoption of standards for submission to the United States under any federal law respecting environmental protection.'" PC 1387 at 5, quoting 415 ILCS 5/5(c) (2012). The Act also gives the Board the authority to adopt regulations that promote the purposes of the Act, including water quality standards and effluent standards. *Id.*, citing 415 ILCS 5/13(a) (2012). IERG points out that federal regulations recognize that it is the State's authority to review, establish and revise water quality standards. *Id.*, citing 40 C.F.R. § 131.4(a). IERG also explains that USEPA's authority under the CWA is to review, approve, and disapprove water quality standards adopted by the States.

IERG maintains:

The Board has an obligation to follow its statutory obligations under Sections 27 and 28 of the Act [415 ILCS 5/27 and 28 (2012)] and make a decision based on the record before it. USEPA approves or disapproves water quality standards pursuant to Section 303(c) of the CWA following the adoption of the standards by the State. To the extent that USEPA is involved in the State rulemaking process, it should be on equal footing as any other participant in the rulemaking. As such, USEPA's participation is governed by the Board's statutory obligations and its procedural rules. Testimony and comments submitted by USEPA must be considered in a manner consistent with all other participants. If USEPA wishes to substantively participate in the process, it is welcome to introduce evidence and present witnesses for cross-examination. However, USEPA has no authority to mandate an outcome through . . . conclusory comments, secondhand testimony from [I]EPA, or veiled threats of disapproval. * * * IERG discourages the Board from considering unnecessary regulations, especially when the proposed regulations are not accompanied by adequate justification. PC 1387 at 6.

IERG continues, maintaining that any factual information submitted in a public comment is accorded less weight because it is not supported by sworn witnesses and is not subject to cross-examination. PC 1387 at 6, citing In the Matter of Volatile Organic Material Emissions from Stationary Sources: RACT III, R82-14 slip op. at 5 (Jan. 8, 1987). IERG asserts that public comments offered by USEPA should thus be given less weight than testimony at hearing or comment supported by testimony. *Id.*

Response to USEPA's Comment. IERG offers that USEPA seems to “second guess” the Board’s analysis by stating that USEPA is “unaware” of information supporting the Board’s conclusions relating to the UAA Factors. PC 1387 at 7. IERG disagrees with USEPA’s assessment of the Board’s analysis and argues that the comments should be given little weight, as there is little citation to the record to support USEPA’s comment. *Id.* at 8. IERG argues that USEPA’s comments fail to consider the UAA Factors in their entirety and fail to consider the overwhelming evidence in the record. *Id.*

IERG asserts that USEPA narrowly construes the UAA regulations. PC 1387 at 8. For example with UAA Factor 3, IERG argues that USEPA fails to recognize the presence of steep banks, vertical dock walls and commercial barge traffic which also contribute to a determination under UAA Factor 3. *Id.* With UAA Factor 5, IERG notes that USEPA focuses on “low flow conditions” but fails to consider other relevant portions of that factor such as “physical conditions related to the natural features” and “lack of proper substrate, cover, flow, depth, pools, riffles and the like”. *Id.* IERG “asks that the Board be mindful of the limited focus” of USEPA comments on UAA Factors 3 and 5. *Id.*

Chlorides. IERG argues that the Board must adopt rules that:

take into account existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality, or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution. PC 1387 at 9, quoting 415 ILCS 5/27(a) (2012).

IERG maintains that the Supreme Court has interpreted Section 27(a) of the Act (415 ILCS 5/27(a) (2012)) to mean that the Board must consider various factors; although, the Board need not conclude compliance with a regulation is technically feasible and economically reasonable before it can adopt a regulation. *Id.* at 9, citing Granite City Division of National Steel Co. v. IPCB, 155 Ill.2d 149 (1993). The Court recognized that variances would be available as regulatory relief where there are standards which are beyond existing technology. *Id.* at 10.

In the case of chlorides, IERG argues that the record demonstrates that the proposed chloride standard is unachievable, but obtaining variance relief, and subsequent approval by USEPA could be impossible. PC 1387 at 11. IERG urges the Board to give extra weight to the economic reasonableness and technological feasibility when adopting a chloride water quality standard. *Id.* at 11.

COMMENTS ON PROPOSED SECOND NOTICE

USEPA (PC 1388)

USEPA states that the “information summarized in the [Board’s] October 3, 2013, does not appear to support the conclusion that it is not feasible for the waters in the [CAWS] and [LDPR] that are the subject to the proposal to attain” the CWA goal based on UAA Factors 3 and 5. PC 1388 at 1. USEPA states that “there does not appear to be sufficient information

affirmatively demonstrating that” CSOs and stormwater discharges “cannot eventually be remedied such that it is warranted to adopt a lower aquatic life use designation” pursuant to UAA Factor 3. *Id.* USEPA also does not believe that UAA Factor 5 applies because that factor relates only to situation where “natural conditions preclude attainment of the aquatic life use.” *Id.* However, USEPA does believe that “Illinois may be able to justify adoption” of a lesser aquatic life use based on UAA Factor 4 “for many of the segments in CAWS and LDPR.” *Id.*

USEPA offers specific suggestion for revisions to the Board’s proposed second notice language defining the aquatic life uses. USEPA recommends that the Board include language that the quality of the waters “shall protect” the proposed aquatic life use. PC 1388 at 3. USEPA believes that this inclusion will improve the language and reflects the Board’s intent. Specifically, USEPA recommends the proposed language for ALU A, ALU B and UDIP read:

Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are capable of maintaining, and shall have quality sufficient to protect, aquatic life populations predominated by individuals of tolerant . . . PC 1388 at 2.

USEPA also recommends that the Board “eliminate the unnecessary language in the designated use for the UDIP that refers to the unique flow conditions.” PC 1388 at 3. USEPA agrees with the Board that there is substantial evidence in the record relating to the importance UDIP plays in supporting navigation. *Id.* However, the Board has determined that this factor does not prevent the attainment of the CWA goal; thus USEPA suggests deleting; “that are adaptive to the unique flow conditions necessary to maintain navigational use and upstream flood control functions of the waterway system.” *Id.* USEPA also recommends that since the Board has found that no UAA factor applies, subsection (b)(2) should be eliminated in its entirety. PC 1388 at 4.

USEPA comments on language revisions that IEPA recommends in the definitions of ALU A, ALU B, and UDIP. First, USEPA agrees with the suggestion that the word “moderately” be replaced with “intermediately” in the definitions of ALU A and UDIP. PC 1388 at 3. USEPA also agrees with IEPA’s suggestion that the phrase “these waters are capable of attaining a balance aquatic life” be added to the UDIP definitions; but would also suggest a direct citation to the CWA. PC 1388 at 4. USEPA further believes that if the Board retains language describing what the water body is capable of supporting in ALU A and ALU B, that the Board revise the language as suggested by IEPA. Specifically USEPA believes that the phrase “these waters are capable of attaining a balance aquatic life” should be added and proposed 303.230(a)(2) and 303.235(b) be deleted. *Id.*

USEPA indicates an understanding with the Board’s inclusion of species list as an informative tool describing the types of organisms that may be present in the water bodies. PC 1388 at 3. USEPA also supports the Board’s determination that no UAA Factors apply to the UDIP. *Id.*

Chemical Industry Council of Illinois (PC 1389)

CICI believes that there are aspects of the Board's proposed rule that need clarification before the Board moves ahead. PC 1389 at 1. CICI comments that the Board's decision that the UDIP is nearly capable of meeting the CWA goal, while recognizing that the unique physical conditions, flow patterns and operational controls necessary to maintain flood control and navigation, is inappropriate. *Id.* CICI reiterates that the data and information in this record demonstrate that the exact conditions that the Board recognizes are conditions that prevent the attainment of the CWA goal. PC 1389 at 2. CICI argues that this information should be applied to the UAA Factors and result in a finding that UAA Factors 3,4, and 5 prevent attainment of the CWA goal in the UDIP. *Id.* Further, CICI does not agree that intolerant species will be present in the UDIP and opines that the definition of UDIP should be amended to reflect that the UAA Factors prevent the attainment of the CWA goal. *Id.*

IEPA Comment (PC 1390)

IEPA offers suggestions regarding the definitions of ALU A, ALU B, and UDIP, arguing that the changes proposed at second notice could "cause some additional confusion". PC 1390 at 3. IEPA specifically believes that proposed Sections 303.230(a)(2), 303.230(b)(2), and 303.235(b) could cause confusion. *Id.* These provisions, IEPA opines "do not clearly distinguish the two different aquatic-life goals that are distinguished in the CWA". IEPA names those two goals as "the interim, less-natural goal of balanced populations of aquatic life versus the ultimate goal of *biological integrity*, which represents a highly natural condition" (emphasis in original). *Id.*

IEPA argues that to clarify and better focus the regulatory language proposed Sections 303.230(a)(2), 303.230(b)(2), and 303.235(b) should be deleted and proposed Sections 303.230(a)(1), 303.230(b)(1), and 303.235(a) should be modified. PC 1390 at 3. The specific language changes suggested by IEPA are:

Section 303.230:

- a) Chicago Area Waterways System Aquatic Life Use A Waters
 - 1) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are capable of maintaining aquatic-life populations predominated by individuals of tolerant and ~~moderately~~ intermediately tolerant types that are adaptive to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system. Such aquatic life may include, but is not limited to, fish species, such as channel catfish, largemouth bass, bluegill, ~~black~~ crappie, spotfin shiner, orangespotted sunfish, common carp, and goldfish. These waters are not capable of attaining balanced aquatic life.

~~2) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region, due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system.~~

b) Upper Dresden Island Pool Aquatic Life Use Waters

1) Lower Des Plaines River from the Brandon Road Lock and Dam to the Interstate 55 bridge ~~shall be~~ is designated as ~~the~~ Upper Dresden Island Pool Aquatic Life Use. These waters are capable of maintaining aquatic-life populations consisting of individuals of tolerant, ~~moderately~~ intermediately tolerant, and intolerant types that are adaptive to the unique flow conditions necessary to maintain navigational use and upstream flood control functions of the waterway system. Such aquatic life may include, but is not limited to, largemouth bass, bluntnose minnow, channel catfish, ~~orange-spotted~~ orangespotted sunfish, smallmouth bass, shorthead redhorse, and spottail shiner. These waters are capable of attaining balanced aquatic life.

~~2) Upper Dresden Island Pool Aquatic Life Use Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use and flood control functions of this waterway system.~~

Section 303.235:

a) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are capable of maintaining aquatic-life populations predominated by individuals of tolerant types that are adaptive to unique physical conditions and modifications of long duration, including artificially constructed channels consisting of vertical sheet-pile, concrete and rip-rap walls designed to support commercial navigation, flood control, and drainage functions in deep-draft, steep-walled shipping channels. Such aquatic life may include, but is not limited to, fish species, such as common carp, golden shiner, bluntnose minnow, yellow bullhead,

and green sunfish. These waters are not capable of attaining balanced aquatic life.

- ~~b) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to the natural habitat of the region due to irreversible modifications that result in limited physical habitat and stream hydrology. PC 1390 a 4-5.~~

In support of its suggestions, IEPA explains that the CWA recognizes an ultimate goal of natural biologic condition called “biological integrity”, which is defined as:

the condition “a balanced, integrated, adaptive system having a full range of ecosystem elements (genes, species, assemblages) and processes (mutation, demographics, biotic interactions, nutrient and energy dynamics, and metapopulation dynamics) expected in areas with no or minimal human influence (Karr and Dudley 1981, Karr and Chu 2000)” (page 1252 in Davies, S.P. and S.K. Jackson. 2006. *The Biological Condition Gradient: a descriptive model for interpreting change in aquatic ecosystems*. Ecological Applications 16:1251-1266). PC 1390 at 5-6; *see also* 33 U.S.C. §1251(a).

IEPA acknowledges that although the ultimate goal can be achieved in only a few waters in the Eastern and Midwestern United States and possibly none in Illinois, it serves as ultimate guiding principal of the CWA. PC 1390 at 6. However, IEPA explains that the CWA recognizes an interim goal based on the presence of balanced aquatic life that does not represent a condition as highly natural as the condition of biological integrity. PC 1390 at 6, citing 33 U.S.C. §1251(a)(2). IEPA states:

This interim goal of less-natural, nonetheless balanced communities of aquatic life represents the threshold that pertains directly to use-attainability analysis and therefore represents the most relevant aquatic-life goal for this rulemaking. PC 1390 at 6-7.

IEPA argues that given the distinction between the interim goal and the ultimate goal adding the language in proposed Section 303.230(a)(2) mentioning the inability to attain the higher natural condition of biological integrity “seems peripheral”. PC 1390 at 7. IEPA “prefers” that the regulatory language clarify that the UDIP represents the ability to attain the interim CWA goal of balanced aquatic life communities; while ALU A and ALU B represent the inability to achieve the interim CWA goal. *Id.* IEPA opines that these distinctions reflect the focus of the UAA analyses in this rulemaking. *Id.*

IEPA believes that the descriptions in proposed Sections 303.230(a)(1), (b)(1) and 303.235(a) address the ability or inability to attain the interim CWA goal. PC 1390 at 7. However, the addition of proposed Sections 303.230(a)(2), (b)(2) and 303.235(b) do not reinforce the distinctions. IEPA opines that proposed Sections 303.230(a)(2), (b)(2) and

303.235(b) while technically accurate, introduce potential confusion by shifting focus away from the interim CWA goal. *Id.* IEPA offers suggestions to refocus the descriptions on the interim CWA goal.

IEPA also suggests that the term “moderately tolerant” be replaced with “intermediately tolerant” because use of intermediately tolerant allows for distinguishing between species that are moderately intolerant and species that are moderately tolerant. PC 1390 at 8. IEPA states:

the words, “moderately tolerant,” imply a position within the tolerant half of the tolerance continuum rather than in the middle of the entire continuum. Replacing “moderately tolerant” with “intermediately tolerant” more clearly represents the middle of this continuum, which is the intended meaning in the proposed use definitions. PC 1390 at 8.

IEPA believes that the use of “intermediately tolerant” is consistent with the Ohio Environmental Protection Agency and UEPA’s usage of “intermediate”. *Id.*

IEPA recommends adding “shorthead redhorse” to the species list in the definition of UDIP. PC 1390 at 13. The proposed definition contains only one intolerant species, IEPA believes that adding shorthead redhorse improves the representativeness of the list of fish species. *Id.*

IEPA suggests that each use category be given its own section. PC 1390 at 13-14. IEPA is agreeable to UDIP having its own use category; however, IEPA recommends a separate section for UDIP. PC 1390 at 14,15. IEPA suggests that at the very least that ALU A and ALU B be included in a single section. PC 1390 at 14.

IEPA seeks clarification of statements in the Board’s proposed second notice. IEPA states that:

Section 303.230(b) is not clear in the Board’s proposal. On Page 1 of the Opinion and Order, the Board states, “that the biological condition in the UDIP many (this appears to be a typo and should actually read “may”) not fully meet the CWA goal of fishable” and then on page 42 of the Opinion and Order, the Board states, “the Board continues to believe that the CWA aquatic life goal is attainable in the UDIP”. In the proposed language found in the Board’s Opinion and Order, Section 303.230(b) states, “Upper Dresden Island Pool Aquatic Life Use Waters are not presently capable ...”. If the Board is somehow saying the UDIP is not presently meeting the interim Clean Water Act goal, but believes the UDIP can meet the goal in the future, then Illinois EPA recommends this clarification be made before submitting the rule to JCAR.

In addition to its comments on the proposed second notice, IEPA also offered suggestions for language in Subdocket D. The Board has entered this comment in Subdocket D as well.

Citgo Petroleum Corporation and PDV Midwest Refining, LLC (PC 1391)

Aquatic Life Uses in the CSSC

Citgo/PDV notes that the Board has made several changes to the definitions for ALU B. Citgo/PDV agrees with these changes, however, they additionally urge the Board to include the Emerald Shiner in the listing of fish species in Use B. PC 1391 at 2. Citgo/PDV claims that the “Emerald Shiner is also a tolerant species and it comprised 16.3% of the Rotenone collection in December 2009.” *Id.* Citgo/PDV notes that “with the addition of the Common Carp and the Emerald Shiner, the species specifically listed in the Use B definition account for approximately 82% of the species found in that Rotenone event. *Id.*

Expressly Recognizing An Invasive Species Barrier As A “Use” In the CSSC

Citgo/PDV notes that the Board did not include the “invasive species barrier” (or “electric fish barrier”) as a recognized “use” in the CSSC. PC 1391 at 2. With respect to the Lower Ship Canal, Citgo/PDV does not agree with the Board’s reasoning in the proposed second notice that the electric fish barrier is a temporary fixture. *Id.* Citgo/PDV proposes that the Board expressly note in the description of the uses that this portion of the CSSC contains an electric fish barrier to prevent invasive species from migrating between the Illinois River System and the Lake Michigan basin.

Citgo/PDV claims that the Board’s statement regarding the temporal nature of the electric fish barrier is contrary to its own analysis of Factor 3 as applied to the CSSC. PC 1391 at 2. Citgo/PDV maintains that “if the electric barrier is being cited to distinguish the CSSC then it should also be listed as one of the uses in the CSSC.” *Id.* Citgo/PDV points to the Board’s proposed second notice that states “among the human caused conditions affecting the CSSC is an electric fish barrier that has been constructed to protect the Great Lakes from invasive species, particularly the Asian carp. . . .” *See infra* at 37. PC 1391 at 3. Citgo/PDV additionally points to the Board’s response to the USEPA’s inquiry regarding the differences between ALU A waters and ALU B waters, in which the Board states “. . .the presence of the electrical barrier alone distinguishes the CSSC from ALU A waters.” *See infra* at 41. *Id.*

Citgo/PDV thinks it important to note that at the time this rulemaking proceeding commenced only a “demonstration barrier” was in place in the Lower Ship Canal. PC 1391 at 3. Citgo/PDV claims that the electric fish barrier installed in 2002 was a demonstration barrier to test the barrier’s effectiveness. Citgo/PDV claims that this demonstration barrier is “only one component of the current barrier system.” PC 1391 at 4. Citgo cites to a United States Army Corps of Engineers publication discussing the barrier as “permanent”. *See Exhibit A, PC 1391.* Citgo/PDV also notes that “the Corps subsequently completed two additional permanent barriers known as Barrier IIA and Barrier IIB.” *See PC 1391, Exhibit 2. Id.* Citgo/PDV maintains that this information shows that “the temporal nature of the initial demonstration barrier no longer applies to the electric barrier system in place now.” *Id.*

Citgo/PDV cites to the USEPA's characterization of the electric barrier as a "permanent feature." PC 1391 at 4, citing <http://www.epa.gov/glnpo/invasive/asiancarp/>. Citgo/PDV also cites to the U.S. Coast Guard's regulation concerning navigation and safety in the area of the electric fish barrier. Citgo/PDV cites to the Regulated Navigation Area rules promulgated by the Coast Guard to show that the electronic fish barrier is a permanent fixture in the CSSC. PC 1391 at 5.

Citgo/PDV points to the fact that "the Great Lakes Commission has identified the entire lower CSSC as a potential location for a future physical barrier to halt invasive species movement." PC 1391 at 6. Citgo/PDV presents all of this evidence to show that one of the uses of the CSSC, and the lower Ship Canal in particular, will continue to be to host an invasive species barrier. *Id.* Citgo/PDV maintains that within the CSSC water will continue to flow through the electric fish barrier regardless of what its "uses" are. *Id.* Citgo/PDV opines that "this is also the case with the other physical conditions that the Board has accepted and included in the definition of Aquatic Life 'Use B' waters." PC 1391 at 7. Citgo/PDV states that "there is no viable reason not to recognize there is an invasive species barrier in the CSSC now." *Id.*

Citgo/PDV points to a recent proposed amendment to the USPEA's regulations with respect to state water quality standards for further support of their request that the electric fish barrier be recognized as a use for the lower portion of the CSSC. PC 1391 at 7. Citgo/PDV claims that the USEPA "proposes to revise the existing regulation to expressly allow the kind of description we are proposing here." *Id.* The proposed rule states, "[i]f a State adopts new or revised water quality standards based on a use attainability analysis, the State shall also adopt the highest attainable use and the criteria to protect that use. To meet this requirement, States may, at their discretion, utilize their current use categories or subcategories, develop new use categories or subcategories, or adapt another use which may include a location-specific use." 78 Fed. Reg. 54517 at 54544. Citgo/PDV opines that "[i]t is clear that the USEPA's revised regulations contemplate and expressly allow for 'location specific' uses such as the invasive species barrier located in the Lower Ship Canal." PC 1391 at 7-8. Citgo/PDV urges the inclusion of the electric fish barrier as a "use" in the CSSC.

IERG Comment (PC 1392)

UAA Conclusions

IERG states that it "is encouraged" by the Board's addressing USEPA's comments, explicitly detailing the aspects of the voluminous record in the rulemaking upon which the Board relied in analyzing the UAA Factors 3, 4, and 5. PC 1392 at 2.

While IERG agrees with the Board's conclusions on UAA Factor 3, IERG suggests "that, in light of the expansive testimony it has heard on the subject, the Board consider including reference to measures to impede the migration of invasive species as a recognized use of the segments where those activities are occurring. PC 1392 at 2. Regarding UAA Factor 4, IERG agrees with the Board's conclusion that Factor 4 prevents the CAWS and LDPR from attaining the CWA fishable goal. PC 1392 at 2. Finally, IERG agrees with the Board's characterization of

the evidence in support of its conclusion on UAA Factor 5 as “overwhelming” and not merely based on low-flow impacts. *See* Proposed Second Notice at 40, PC 1392 at 3.

UDIP

IERG support’s the Board’s decision to create a UDIP-specific aquatic life use designation instead of the General Use designation proposed at first notice . PC 1392 at 3. IERG disagrees with “the Board’s continued belief that CWA aquatic life goal is attainable in UDIP, particularly in light of apparently contradictory statements within the Board’s opinion, including ‘the biological condition in UDIP may not fully meet the CWA aquatic life goal’.” PC 1392 at 3. IERG suggests that limitations on attainability are applicable to the UDIP, “and the Board should be mindful of that in proceeding to adopt standards to protect the UDIP aquatic life use in Subdocket D.” PC 1392 at 3.

Water Quality Standards

IERG expresses concern regarding the chloride water quality standard proposed in the IEPA’s initial proposal. IERG maintains that the proposed chloride standard will be violated regularly if adopted by the Board. IERG “remains convinced the chloride standards previously proposed for this rulemaking are simply not achievable or appropriate.” PC 1392 at 4. However, IERG states that it is encouraged by indications from the Board and IEPA that an alternate numeric chloride standard appropriate for the affected waters would be addressed in Subdocket D proceedings. *Id.* Additionally, IERG supports the Board’s recognition at First Notice that issues relating to temperature will be resolved in Subdocket D. *Id.*

ExxonMobil Oil Corporation (PC 1393)

ExxonMobil asks the Board to reconsider its findings that none of the UAA factors apply to the UDIP and that the UDIP meets the CWA goal. PC 1393 at 3. ExxonMobil states that “UAA factors apply to the UDIP that support use subcategories that do not achieve CWA goals.” *Id.*

UAA Factors Apply to the UDIP

ExxonMobil restates evidence outlined in their first notice comments arguing the irreversible physical habitat conditions in the UDIP and other justification exist for applying the UAA Factors to the UDIP. PC 1393 at 3-5. Exxon Mobil argues that the Board in the proposed second notice applies UAA Factors to the LDPR and “does not differentiate specific segments of the LDPR where UAA factors apply from the UDIP, and in most cases agrees that UAA factors apply to the entire LDPR.” PC 1393 at 5. ExxonMobil opines that “in fact, all of the justifications provided by the Board for applying these UAA factors to the LDPR are also applicable to the UDIP stretch of the LDPR.” PC 1393 at 5-6. ExxonMobil asks, supported by reiteration of evidence in prior comments, for the Board to find that UAA factor 3 should apply to the UDIP. PC 1393 at 6. ExxonMobil also asks that the Board to find that UAA factor 4 should apply to the UDIP. *Id.* ExxonMobil asks the Board to “revise its CWA goal conclusions for the UDIP in other parts of the Second Notice to be consistent with these findings.” PC 1393

at 7. ExxonMobil also reiterates their argument that UAA factor 5 applies to the UDIP. PC 1393 at 7. ExxonMobil again asks the Board to “make its conclusions related to the UDIP in other parts of its Second Notice consistent with its findings related to the UAA factors in response to USEPA’s comment.” *Id.*

The Board’s Second Notice Supports a Use Subcategory for UDIP Aquatic Life Use Waters

ExxonMobil requests that the Board take official notice of the recently proposed regulation entitled “Water Quality Regulatory Clarifications” published at 78 Fed. Reg. 54518 (Sept. 3, 2013) (“Clarification Rule”). PC 1393 at 8. ExxonMobil asks the Board to take notice of this proposed regulation, “which would insert clarifying language into several provisions of 40 C.F.R. 131”. *Id.* ExxonMobil explains that USEPA describes its interpretations of certain CWA water quality standards provisions that are of considerable importance to the Subdocket C and D rules. *Id.* ExxonMobil claims:

[p]ursuant to the Clarification Rule, even if the Board continues to find that the UDIP minimally achieves CWA aquatic life goals, the Board’s proposed definition of UDIP Aquatic Life Use Waters is still consistent with concepts in USEPA’s Clarification Rule that allow subcategories of CWA Section 101(a)(2) designated uses and the adoption of numeric water quality criteria that are protective of those uses. *See* Fed. Reg. 54522-23, PC 1393 at 8.

ExxonMobil points to several examples in the Clarifications Rule that are, in their opinion, analogous to the site-specific conditions in the UDIP and “could be viewed as consistent with the Board’s decision to propose the definition of UDIP Aquatic Life Use Waters. *Id.* ExxonMobil also notes that the Clarifications Rule “states that USEPA intends to grant states “considerable discretion” in defining subcategories of uses and the applicable water quality criteria to protect such uses.” *See* 78 Fed. Reg. 54524, PC 1393 at 9.

The UDIP Aquatic Life Use Waters Definition

ExxonMobil opines that “[t]he Board’s definition of the UDIP Aquatic Life Use Waters contains internal conflicts, and it conflicts with the Board’s findings that no UAA factors apply and that the UDIP achieves CWA goals.” PC 1393 at 9. ExxonMobil argues proposed Section 303.230(b)(1) contains language that contradicts with itself. PC 1393 at 10. ExxonMobil notes that “the Board finds that the UDIP is capable of maintaining tolerant, moderately tolerant, and intolerant aquatic life populations.” PC 1393 at 11. ExxonMobil asserts that “this capability is limited to only such populations that are tolerant enough to be adaptive to the unique conditions in the UDIP. These two concepts conflict with each other.” *Id.*

Additionally, ExxonMobil notes a conflict between proposed Section 303.230(b)(2) and Proposed Section 303.230(b)(1). ExxonMobil argues that “the UDIP Aquatic Life Use Waters definition conflicts with itself by stating that it is capable of maintaining intolerant aquatic life populations and, at the same time stating, that it is only capable of maintaining aquatic life populations that are adaptive to the unique conditions in the UDIP.” PC 1393 at 11.

ExxonMobil argues that the Board’s proposed definition of UDIP Aquatic Life Use Waters conflicts with the Board’s finding that UAA factors do not apply to the UDIP and that the UDIP meets CWA goals. PC 1393 at 12. ExxonMobil opines that the definition of the UDIP in proposed Section 303.203(b)(1) limits the aquatic life capability to only certain adaptive aquatic life populations. *Id.* ExxonMobil also believes that the proposed Section 203.303(b)(2) “appears to acknowledge that CWA goals are not met in the UDIP.” *Id.* ExxonMobil notes that “[t]his limitation is due to the unique physical conditions, flow patterns, and operation control necessary to maintain navigational use and flood control functions of this waterway.” *Id.* ExxonMobil argues that the reasoning behind this limitation appears to invoke UAA factors 3, 4 and 5. ExxonMobil further argues that, therefore, the UDIP Aquatic Life use Waters definition conflicts with the Board’s finding that no UAA factors apply to the UDIP and that the UDIP meets CWA goals. *Id.*

Supported by evidence from prior comments, ExxonMobil argues that “the UDIP does not now maintain, and is not capable of maintaining, intolerant aquatic life populations.” PC 1393 at 13. ExxonMobil goes on to reiterate this argument made in prior comments. *See* Proposed Second Notice at 14-15. ExxonMobil ultimately believes that “[t]he designated aquatic life use subcategory for the UDIP should represent existing, achievable habitat condition, not aspirational uses that are unsupported by the data.” PC 1393 at 13.

USEPA’s Clarification Rule Provides the Board with a Regulatory Basis for Designating Appropriate Location-Specific Existing and Attainable Uses for the UDIP

ExxonMobil again points to USEPA’s proposed Clarifications Rule, which ExxonMobil argues “very clearly authorizes states to establish location-specific uses and to adopt criteria to protect those uses.” *See* 78 Fed. Reg. 54524, PC 1393 at 14. ExxonMobil notes that the proposed rule clarification would require states to adopt the highest attainable use (HAU). *Id.* ExxonMobil argues that “the Board has already indicated its intention to adopt site-specific numeric criteria for the UDIP in Subdocket D (e.g., temperature and chlorides) and it has described the aquatic life community attainable in the UDIP as ‘adapted’ to the unique flow conditions of the water body. These findings are consistent with the HAU that is unique to the UDIP.” *Id.*

The Record Supports an Alternative UDIP Aquatic Life Use Waters Definition

ExxonMobil requests that the UDIP Aquatic Life Use Definition at proposed Section 303.230(b)(1) be revised as follows:

- b) Upper Dresden Island Pool Aquatic Life Use Waters
 - 1) Lower Des Plaines River from the Brandon Road Lock and Dam to the Interstate 55 bridge shall be designated as the Upper Dresden Island Pool Aquatic Life Use. These waters are capable of maintaining aquatic-life populations consisting of individuals of tolerant, moderately tolerant, and only those intolerant types that are adaptive to the unique flow conditions necessary to maintain navigational use and upstream flood control

functions of the waterway system and the sources and characteristics of the upstream flow. Such aquatic life may include, but is not limited to largemouth bass, bluntnose minnow, channel catfish, orange-spotted sunfish, smallmouth bass, and spottail shiner. PC 1393 at 14-15.

Consideration of Issues In Subdocket D

ExxonMobil supports the Board's intention to address chloride levels in Subdocket D. PC 1393 at 15. ExxonMobil sought clarification of issues regarding water quality standards. PC 1393 at 16.

SECOND-NOTICE ISSUES

As a result of the comments received the Board addresses multiple issues. The Board begins by separately addressing the USEPA's comments on the Board's first-notice opinion and the proposed second notice. Next, the Board will address the issue of the UDIP designation as General Use. The Board then discusses issues regarding the definitions of ALU A and ALU B. The Board proceeds next to address the confusion generated by the designation of the Chicago River as a General Use water for aquatic life uses and the Primary Contact Use for recreational use. The Board moves on to a discussion of Bubbly Creek and the standards that apply to Bubbly Creek while Subdocket E proceeds. The Board will next address concerns raised regarding the designation of the CSSC as ALU B and Brandon Pool as ALU B. Finally, the Board lists some issues raised in this proceeding that will be addressed more thoroughly in Subdocket D.

DISCUSSION

The Board's discussion will address each of the issues listed above in this section of the opinion. Further, under the Act the Board is required to take into account "the existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution." 415 ILCS 5/27(a) (2012). In fulfilling this statutory responsibility, the Board need not conclude that compliance with a regulation is economically reasonable and technically feasible as regulatory relief is available. Granite City Division of National Steel Co. v. IPCB, 155 Ill.2d 149 (1993). Thus, the Board also includes a discussion of technical feasibility and economic reasonableness.

USEPA's Comment

The Board will address the comments filed by USEPA during first notice separately in an attempt to illustrate to USEPA the portions of the record that support the Board's decision. The Board will then address USEPA's comments on the proposed second notice.

First Notice Comments

The Board notes that other than the Upper North Shore Channel, the Calumet River from Lake Michigan to Torrence Avenue, the Chicago River, the remaining portions of the CAWS and LDPR have not been found to meet the CWA goal of fishable since the adoption of the CWA. Further, those segments have previously been classified less than general use. However, the Board appreciates the concerns expressed by USEPA and will attempt to point USEPA to the evidence in the record that supports the Board's decision. The Board's first-notice opinion and order was a 228-page document, with over 50 pages of discussion that summarized a record consisting of over 1000 public comments, over 450 exhibits, hundreds of pages of hearing transcript, and an original IEPA proposal that was also hundreds of pages.

The Board's first-notice opinion and order summarized the details of the CAWS and LDPR UAAs (Attach A and B) and included tables that described the impairments and physical characteristics of the waters. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 17-19 (Feb. 21, 2013). The existing conditions of CAWS were characterized in the UAA process by evaluating the physical, chemical, biological, habitat, hydrological and meteorological, and waterway use data. *Id.* at 19. The first-notice opinion states that in the CAWS UAA (Attach B), determining attainable uses was a priority and the CAWS UAA focused on:

developing a comprehensive dataset on bacteria and DO, and related parameters, including nutrients, solids, oxygen demand, water temperature, and photosynthesis related measures. [Attach B] at 4-3. Water quality data characterizing priority and 303(d) listed pollutants were also a consideration. CDM collected sediment chemistry and volume data to evaluate sediment bound pollutants and their potential impact on in-stream water quality and aquatic life populations. *Id.*

Likewise, in the LDPR UAA (Attach A), the capabilities of the LDPR to attain a designated use were examined using five objectives:

- 1) Evaluate all available data to determine the current conditions of the LDPR.
- 2) Determine the potential to achieve and maintain a higher use designation such as a diverse and balanced, self-supporting aquatic community.
- 3) Identify the significance of the major stressors on the aquatic system.
- 4) Assess water quality data and habitat management activities to reduce these stressors.
- 5) Develop recommended use designations and water quality standards to achieve the highest attainable uses that are consistent with the CWA. Attach. A at 1-4. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River:

Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 35 (Feb. 21, 2013).

Specific findings from the UAAs will be discussed in more detail when addressing the specifics of USEPA's comment.

The Board will first generally address USEPA's comments on the analysis of the UAA Factors and then discuss the stream segments.

UAA Factors. Specifically, USEPA questions the support in the record for the Board to designate several segments in the CAWS and LDPR as not meeting the CWA goal by relying upon UAA Factors 3, 4 and 5. USEPA questions:

1. Whether CSOs can be "remedied through the completion of the Tunnel and Reservoir Plan" and therefore whether or not UAA Factor 3 provides a basis for finding that segments of CAWS and LDPR cannot meet the CWA goal,
2. Whether low flow conditions prevent attainment of the aquatic life use therefore whether or not UAA Factor 5 provides a basis for finding that certain segments of CAWS and LDPR cannot meet the CWA goal,
3. What information demonstrates that the hydrological modifications "preclude the attainment of the use," based upon the administrative record regarding existing physical and biological conditions, and
4. The basis for concluding that "it is not feasible to restore the water body to its original condition to operate such modification in a way that would result in the attainment of the use." Therefore, whether or not UAA Factor 4 provides a basis for finding that certain segments of CAWS and LDPR cannot meet the CWA goal. PC 1372

UAA Factor 3. UAA Factor 3 addresses human caused conditions or sources of pollution which prevent attainment, in this instance, of the CWA goal of fishable. Under UAA Factor 3, the human caused conditions or pollution cannot be remedied or would cause more environmental damage to correct than to leave in place. Regarding UAA Factor 3, the CAWS UAA indicated:

that extensive residential, commercial and industrial development has occurred along the waterways. Reducing or eliminating many of these structures (*e.g.* Chicago area buildings, bulkheads, sheet-piled walls, bridges) to attain a higher aquatic life use could cause significant and widespread economic and social hardship to Chicago's environment. Further, much of CAWS consists of man-made canals constructed to convey stormwater and wastewater, and to provide for navigation. These man-made canals have steep sides, are deep draft, and have very little shallow shoreline areas to provide adequate habitat for a high quality

fish. Such conditions prevent CAWS from attaining a high quality aquatic life use. Attach. B at 5-3. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 30 (Feb. 21, 2013).

In addition to the UAA addressing the human caused conditions, the record included testimony, comments and studies regarding issues that impact the CAWS and LDPR. One area that USEPA relies upon in questioning the Board's finding is the completion of TARP. First, the Board notes that completion of TARP is still more than 15 years away. Furthermore, while the completion may address some of the CSO problems, the Board heard testimony from Ms. Nemura that the completion of TARP alone will not necessarily alleviate the dissolved oxygen issues that result from CSOs. *See* Exh. 465. Ms. Nemura argues for a wet weather limited use category for the CAWS. *Id.* Dr. Earnest R. Blatchley also noted that while TARP has yielded substantial improvements in water quality and will bring additional improvements when completed, TARP will not completely capture all CSO events. Exh. 93 at 7. Additionally, Ms. Wasik cited to other stormwater sources such as municipal separate storm sewer (MS4) discharges. Exh. 461 at 15. As noted at first notice, the Board believes that the impact of the elimination of CSOs on CAWS and LDPR can be evaluated only after the completion of TARP reservoirs. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 189 (Feb. 21, 2013).

Further, the Board notes that the impact of CSOs was not the only issue considered by the Board with respect to UAA Factor 3. The impact of human caused conditions on the habitat quality was a significant factor in the designation of aquatic life use of the CAWS and LDPR. The Board relied on the CAWS and LDPR UAAs, and the LimnoTech Habitat Study to assess the habitat conditions in the CAWS and LDPR. As explained in the segment-by-segment discussion in the first notice opinion, the habitat quality in most of the segments is impacted by human caused conditions, which include channel morphology, hydrology and flow regime, and bank and riparian conditions. *Id.* at 177-221, PC 284 HER 69-94, SR at 49-51. Another consideration for the Board is that the LimnoTech study found that in some segments where there is a potential for improvement of habitat quality, such improvements would cost millions of dollars. PC 284 HIR at 61.

Among the human caused conditions affecting the CSSC is an electric fish barrier that has been constructed to protect the Great Lakes from invasive species, particularly the Asian carp. The need for that barrier is discussed in extensive testimony and comment. In fact, the Board held two days of hearing and accepted testimony from seven individuals on the steps taken in the CSSC to protect against invasive species. *See* Exh. 420, 425, 428, 431, 434, 435, and 436; 11/9/10 and 11/10/10Tr.

After considering USEPA's comment and reviewing the record, the Board remains convinced, based on this extensive record, that UAA Factor 3 limits the ability of many CAWS and LDPR segments from attaining the CWA goal of fishable. The Board agrees that the completion of TARP will help with stormwater events and runoff; however, TARP is not

scheduled for completion for over 15 years. In the meantime, the waters will continue to be severely impacted by storm events. Furthermore, even with the completion of TARP, many stream segments will still be impacted by human caused conditions such as the electric fish barrier, flow control and channelization which also prevent the attainment of the CWA goal.

UAA Factor 4. UAA Factor 4 provides for the presence of dams, diversions or other hydrologic modifications that preclude the attainment of the CWA goal. Further, UAA Factor 4 requires that it is infeasible to remove or correct the dams, diversions or other hydrologic modifications. In evaluating UAA Factor 4, the CAWS UAA noted:

that the CAWS cannot be restored to its original conditions because: the flows in CAWS are highly regulated and original flows were diverted through man-made canals to reduce contamination to Lake Michigan in the early 1900s; and the original waterbodies that make up CAWS have been highly modified to support navigation, stormwater and wastewater conveyance and public use. Attach. B at 5-3. These modifications along with flow regulation prevent the attainment of a high quality aquatic life designated use. Additionally, improvements to water quality through treatment may not improve the fish communities due to the lack of suitable habitat to support the fish populations. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 30 (Feb. 21, 2013).

The record in this proceeding, as summarized by the Board in its first-notice opinion, establishes that the CAWS and LDPR have been modified extensively for purposes of navigation, drainage, and wastewater treatment plant effluent transport. *See generally* Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 5-7 (Feb. 21, 2013). These modifications include dams, flow control, and channelization. To remove these hydrologic modifications is not possible. Specifically, adding flow from Lake Michigan is legally prohibited and allowing flow reduction to protect against floods during stormwater events is essential. If channelization were stopped, navigation would become difficult if not impossible, and navigation is a protected existing use.

The impact of hydrologic modifications is discussed extensively in the testimony and comments. For example, hydrologic modifications can change the waterway system from its original riverine nature and can cause physical limitations by limiting riffles, reducing the amount of fast water and increasing sedimentation. *See generally* Exh. 366.

The limitations in UAA Factor 4 were also considered by the Board to limit the ability of stream segments to meet the recreational use goal of the CWA. *See* Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(A), slip op. at 22, 79 (Aug. 5, 2010).

The Board notes that while USEPA raises concerns with the record and whether or not the Board's decision is supported by the record, USEPA has offered no contrary evidence. The Board cannot, based on this record, endorse a concept that would require hydrologic modifications in the CAWS and LDPR to be removed. The record simply contains no evidence that such an outcome is feasible or even possible. Therefore, after considering USEPA's comment and reviewing the record, the Board continues to believe that the extensive record supports a finding that UAA Factor 4 prevents the CAWS and LDPR from achieving the CWA goal of fishable.

UAA Factor 5. UAA Factor 5 is that physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of CWA goal. Addressing UAA Factor 5, the CAWS UAA noted:

that CAWS was artificially created to protect the health of the citizens of Chicago, protect Lake Michigan from Chicago's waste, and develop a navigable link to the Gulf of Mexico, with little consideration given to creating suitable aquatic habitat to support a diverse fish and macroinvertebrate community. Because these waterways are considered to be state and federal navigable waterways, they can be modified and dredged to meet navigable requirements further impacting aquatic habitat. Further, the UAA asserted that the potential for dramatic improvements to create aquatic habitat to support a higher designated use would likely be unproductive, and would severely conflict with important navigational uses. Such conditions preclude the attainment of high quality aquatic life use in CAWS. Attach. B at 5-4. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 30 (Feb. 21, 2013).

USEPA seems to focus on the Board's finding that "low flow" in the systems results in segments being unable to meet the CWA goal. While the Board agrees with USEPA that the low flow conditions in the system may not be solely due to natural features of the waterway, the record is replete with evidence that there are other limitations to the segments that lead to a determination that UAA Factor 5 supports designations of less than the CWA goal. The District provided testimony from Dr. Thomas Granato regarding flow reversal and the impact on habitat. *See generally* 3/3/09Tr. at 38-41. Jennifer Wasik provided testimony on the composition of the sediment and the impact on aquatic life use goals. *See* Exh. 187. Physical configuration and low flow conditions were also discussed by Dr. Charles Melching. *See* Exh. 169.

The District provided the Board with the LimnoTech Study (PC 284) and testimony supporting that study extensively discussing the physical limitations of the CAWS. *See* Exh. 204 and 447. That study included both a habitat evaluation report and a habitat improvement report. The study indicated that the form and function of the CAWS placed limitations on physical habitat, including few shallows near shore areas, lack of cover, lack of riffles, poor substrate and polluted substrate. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code

301, 302, 303, and 304, R08-9(C), slip op. at 59 (Feb. 21, 2013), citing Exh. 447. Also problematic is that manmade channels have all but eliminated the connectivity to a floodplain and floodplain connectivity is important for aquatic habitat. *Id.* slip op. at 60. James Huff also testified as to the poor aquatic habitat. *See* Exh. 284.

After considering USEPA's comment and reviewing the record, the Board remains convinced that the evidence in the record is overwhelming that the physical limitations of the CAWS and LDPR prevent attainment of the CWA goal. The evidence is not merely that low flow impacts the aquatic life use, but that many other limitations exist. Therefore, the Board finds that the record supports its decision that UAA Factor 5 establishes that the CWA goal cannot be attained in all segments of the CAWS and LDPR

Stream Segments

Calumet River System. USEPA asks that the Board explain why the portions of the Calumet River system, connected to Lake Michigan are not capable of meeting the CWA goal. In the Board's first-notice opinion, the Board accepted the agreed designation of ALU A for the Calumet River. The District and Environmental Groups agreed to this designation, while IEPA had originally proposed ALU B. *See* Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 199-203 (Feb. 21, 2013). The Board reviewed the record and found that based on "biologic, habitat, and water quality conditions" the CWA goal could not be achieved. The IBI and MBI scores in the Calumet River and physical attributes were factors the Board considered in making its determination. In addition, the Calumet River System is and will continue to be impacted by stormwater runoff and CSOs. As discussed above, the Board examined the extensive record in deciding that, even though the Calumet River System is connected to Lake Michigan, other limitations prevent attainment of the CWA goal. The Board has attempted to point USEPA to evidence in this record that supports the Board's finding on the Calumet River System.

Grand Calumet River, North Shore Channel, North Branch of the Chicago River. USEPA asks for more specific information regarding the impact of hydrologic modifications on these stream segments and why such modifications prevent attainment of the CWA goal. The Grand Calumet River was reversed to flow west and during low flow periods exhibits stagnant conditions. The North Shore Channel (NSC) is a man-made channel, and the flow to upper NSC comes from Lake Michigan. As discussed above, flow diversion from Lake Michigan is dictated by law and cannot be changed. Thus, flow alterations that limit aquatic life use cannot be modified. In the North Branch, the channel has been either straightened or relocated into straight segments with steep earthen side slopes. The impact of flow conditions, hydrology, and channel morphology is discussed in the LimnoTech study. *See* PC 284 HER at 70-80. Further, as discussed above, the North Branch is listed as impaired due to physical habitat impairments and flow alterations. The Board examined the extensive record in deciding that hydrologic modifications prevent attainment of the CWA goal in these segments. The Board has attempted to point USEPA to evidence in this record that supports the Board's findings.

CSSC Designation as ALU B and Brandon Pool Designation as ALU B. As discussed above, the evidence in the record supports the Board's initial decisions to designate aquatic life use of the various segments of CAWS and LDPR. USEPA asks the Board to provide a "better demonstration that the hydromodifications present" in CSSC and Brandon Pool prevent attainment of ALU A designation and that the proposed ALU B protects existing uses.

Regarding the CSSC, the presence of the electrical barrier alone distinguishes the CSSC from ALU A waters. As discussed above, this modification is in place and prevents movement of fish from the CAWS to Lake Michigan. This cannot be removed at this time. Furthermore, the channelization of the CSSC for commercial navigation and the removal of flow for cooling purposes are some of the factors that prevent a higher designation.

Brandon Pool receives 80% of its flow from the CSSC and has been deepened and widened for commercial navigation purposes. The LDPR UAA states that QHEI scores indicate stream modifications that are generally severe and widespread, and conditions that do not provide habitat to support full warm water use. Attach. A at 4-27. Also according to the UAA, the habitat attributes are irreversible without major physical alterations.

The Board examined the extensive record in deciding that hydrologic modifications prevent attainment of the CWA goal in these segments. The Board has attempted to point USEPA to evidence in this record that supports the Board's findings. The Board continues to believe that the proper designation for CSSC and Brandon Pool, based on this record, is ALU B.

Comments on the Proposed Second Notice

USEPA reiterates its belief that UAA Factors 3 and 5 do not prevent the CAWS and LDPR from achieving the CWA goal of "fishable"; however USEPA believes that UAA Factor 4 may support a finding of less than the CWA goal. The Board appreciates USEPA's comment, but respectfully is not persuaded by USEPA's comment. As discussed above the Board's record is replete with evidence that CSOs and stormwater runoff continue and will continue into the foreseeable future to be detriments to achieving the CWA aquatic life goal, in much of the CAWS and LDPR. Furthermore, the record provides substantial detail on how the natural flow of the CAWS and LDPR are routinely impacted by diversions and draw downs for flood control and navigation. Thus, the Board will not alter its findings on the individual segments where the Board found that UAA Factors 3 or 5 prevent attainment of the CWA aquatic life use goal.

USEPA offered several suggestions on the rule language in the proposed second notice and the Board will discuss those comments below.

Designation of UDIP as General Use

Significant issues were raised in comments concerning the Board's designation of UDIP as a General Use water. As a result, the Board prepared a proposed second notice redesignating the UDIP and seeking comments on this and other issues. IEPA, ExxonMobil, IERG, Stepan, CICI, and Midwest Generation all opposed designating the UDIP as General Use, whereas, the Environmental Groups and USEPA supported the designation. Arguments were made that the

UAA Factors prevent attainment of the CWA goal of fishable, and the Board was asked to reconsider its decision to designate UDIP as General Use. Other issues raised by participants include: 1) applicability of Subpart F to UDIP; 2) timing (when will the general use standards apply) and 3) incidental contact recreational designation and how it interacts with the General Use designation.

IEPA voices concern regarding the proposed General Use designation for UDIP. Referring to the Board's statement at first notice that water quality standards, particularly in the area of temperature, may need to be adapted for UDIP, IEPA states that obtaining USEPA's approval of any water quality standard for UDIP that deviates from General Use standard is likely to be difficult. PC 1373 at 19-20.

Midwest Generation does not agree with the Board's conclusion that none of the six UAA Factors apply to the UDIP, arguing that the Board did not address the extensive testimony and data submitted demonstrating that at least one UAA Factor applied to the UDIP. PC 1381 at 2. Midwest Generation argues that while the CWA presumes that all waters can meet the goal of fishable, that presumption is clearly a rebuttable presumption and the first-notice opinion does not appear to apply the rebuttable presumption legal standard to the UAA factors. *Id.* at 11-12. Midwest Generation notes that the first-notice opinion correctly recognizes that the UDIP is not a naturally flowing or free flowing river system; however, Midwest Generation believes the Board ignored the impacts of these shortcomings on the ability of the UDIP to support aquatic life. *Id.* at 12-13. Midwest Generation argues that 93% of the UDIP is impounded and takes issue with the Board's comparison of UDIP to the Fox River. *Id.* at 13-14. Midwest Generation points to testimony by Greg Seegert that indicates the locks and dam create a deep pool environment that is lacking in coarse substrate, channel diversity, riffle habitat, and gradient. *Id.* at 16.

Midwest Generation maintains that the Board's decision that the UAA Factors do not apply is contrary to the Board's decision in Subdocket A. Midwest Generation claims that the Board's findings in Subdocket A regarding UAA Factor 2, human caused conditions, is equally applicable for aquatic life use determinations. PC 1381 at 18-19. Midwest Generation asserts that because the conditions remain the same, it is arbitrary to conclude that UAA Factor 3 does not equally apply for aquatic life use designations in the UDIP. *Id.* at 20.

CICI agrees that there are physical and associated biological conditions that prevent the UDIP from meeting CWA aquatic life use goals. *Id.* One of these conditions is the "presence and established operation of dams and navigation within the waterway, and the continued urban development and influx of sediment and contaminants which directly and indirectly preclude irreversible hydrologic, physical, and biological attributes within the system". PC 1379 at 3. CICI cites QHEI scores for the study area as showing "poor individual metric scores associated with sedimentation, riffle habitat, hard substrate occurrence and frequency, and in-stream cover as example [of] key variables exhibiting less than desirable status for attaining CWA aquatic life goals". *Id.* CICI states that these variables have been shown to be "directly and indirectly influenced by the physical and hydrologic effects of irreversible dam operation, navigational barge traffic, and sediment influx, and thus, also became irreversible QHEI habitat features of the waterway system".

Stepan points out that “UDIP long has been and remains an impounded, effluent-dominated water that is used for commercial navigation and is impacted by recurrent combined sewer overflow events and that all of these characteristics have resulted in a severely limited habitat”.

ExxonMobil also disagrees with the Board’s and IEPA’s conclusion that none of the UAA factor apply to the UDIP, stating that Factors 3, 4, 5, and 6 apply to the UDIP. PC1375 at 3.

Board Analysis

As noted above, several participants raised concerns regarding: attainability of CWA aquatic life goal in UDIP; inconsistencies between the proposed General Use designation for aquatic life and the Incidental Contact Recreation Use designation adopted under Subdocket A; USEPA approval of specific water quality standards for UDIP if designated as General Use; and the application of Part 302, Subpart F. After careful consideration of all the comments, the Board continues to believe that CWA aquatic life goal is attainable in the UDIP. However, the Board will designate UDIP as UDIP Aquatic Life Use waters instead of General Use to address concerns raised by the participants. These issues are discussed below.

Attainment of CWA Aquatic Life Goal in UDIP. The Board declines to invoke any of the UAA Factors for UDIP, as suggested by several participants, since the Board has already considered the issues raised by the participants at first notice. A detailed discussion of the biologic, habitat, and water quality conditions in UDIP along with the Board’s rationale for not invoking any of the UAA Factors may be found in the first notice opinion. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 215-221 (Feb. 21, 2013). However, the Board will clarify its position regarding the issue of attainment of CWA goal in UDIP. The Board’s finding at first notice was based on the recognition that the biologic condition in UDIP may not fully meet the CWA aquatic life goal. As such, the Board noted that “[t]he Board is mindful that, particularly in the area of temperature, water quality standards may need to be adapted for the UDIP.” *Id.* at 221. The Board believes that the proposed UDIP ALU designation better reflects the Board’s intent with respect to attainment of CWA aquatic life goal, and also avoids certain unintended consequences discussed below. Further, the proposed UDIP ALU designation is consistent with IEPA’s finding that UDIP minimally meets the CWA aquatic life goal. A discussion of the definition of the UDIP ALU will be included below with the discussion of the ALU A and ALU B definitions.

In comments to the proposed second notice, ExxonMobil and IERG continue to disagree with the Board’s conclusion that UDIP can meet the CWA aquatic life goal of “fishable”. In contrast, IEPA recommends that the Board clarify its position and make clear whether or not the Board believes UDIP is meeting the CWA goal, or is the Board merely saying it can meet that goal in the future.

In the proposed second notice the Board stated in the introduction and conclusion that the Board was clarifying its position on UDIP “by recognizing that the biologic condition in the

UDIP may not fully meet the CWA goal of fishable”. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 1, 52 (Oct. 3, 2013). The Board also stated within the opinion that the Board’s position at first notice was “based on the recognition that the biologic condition in UDIP may not fully meet the CWA aquatic life goal.” *Id.*, slip op. at 43. Thus, the Board’s finding in the proposed second notice as well as at first notice is that the UDIP cannot fully meet the CWA goal.

The Board’s finding is also clear from the Board’s decision to move UDIP from a proposed General Use water to its own unique use. UDIP, as a part of the Lower Des Plaines River, was previously designated as Secondary Contact under Section 303.441(i) before that section was repealed in Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(A), (Aug. 18, 2011). If the Board believed that the UDIP presently met the CWA aquatic life goal, then the Board would designate UDIP as a General Use water. The fact that the Board decided not to do so makes clear that the Board’s decision is that the UDIP does not presently fully attain the CWA aquatic use goal.

Application of UAA Factors to UDIP. ExxonMobil states that the proposed definition of UDIP conflicts with the Board’s finding that no UAA factors apply to UDIP. In addition, ExxonMobil claims that the definition of UDIP contains “internal conflicts.” While the Board recognizes that its conclusion that no single UAA Factor applies to the UDIP may create some confusion, the Board believes that there is no conflict with the definition of UDIP and the Board’s decision to not invoke any of the UAA Factors for UDIP. The Board notes that the main reasons for not invoking any of the UAA Factors for UDIP is because when compared to ALU A or ALU B waters, UDIP has more diverse habitat conditions and is subject to a lesser degree of recurring impacts from navigation use and upstream flood control functions. Although the Board believes that the UDIP is capable of maintaining a biologic condition that comes close to meeting the CWA goal than ALU A and ALU B waters, the proposed definition recognizes that aquatic life is limited by the unique flow conditions in that stream segment. Further, the Board’s finding on the UAA Factors is consistent with the IEPA’s proposal for aquatic life use designation for UDIP where the IEPA did not invoke any of the UAA Factors. *See* Exh. 29. Finally, the Board notes that the definition of UDIP being proposed for second notice is the nearly identical to the IEPA’s UDIP definition except for the addition of the list of fish species. Therefore, the Board believes that the definition being proposed for second notice does not conflict with the Board’s decision to not apply any of the UAA Factors to UDIP.

Next, the Board notes that the above clarifications on the attainment of CWA aquatic life goal in UDIP and application of UAA Factors address ExxonMobil’s concern regarding internal conflicts in the definition of UDIP Aquatic Life Use. As noted above, the Board has made it clear that UDIP does not fully attain CWA goal. Further, the Board explained that even though none of the UAA Factors apply, UDIP waters are subject to recurring impacts from navigation use and upstream flood control functions, however, to a lesser degree than ALU A and ALU B waters. These findings are reflected in the proposed UDIP definition, which sets forth that UDIP waters “are capable of maintaining aquatic-life populations consisting of individuals of tolerant, intermediately tolerant, and intolerant types that are adaptive to the unique flow conditions

necessary to maintain navigational use and upstream flood control functions of the waterway system.” See proposed Section 303.230. The Board notes that the term “adaptive” limits the universe of aquatic life populations consisting of individuals of tolerant, intermediately tolerant and intolerant types consistent with the Board finding that UDIP is not capable of fully meeting the CWA goal. Therefore, the Board believes that there is no internal conflicts in the definition of UDIP

Finally, ExxonMobil asks the Board to take notice of a proposed rule filed by USEPA on September 4, 2013. See 78 Fed. Reg. 54518 (Sept. 4, 2013). The Board does take notice of the proposed rule; however, the Board takes no position on the proposed rule. The Board understands the ExxonMobil believes the proposed rule “could be viewed as consistent” (PC 1393 at 9) with the Board’s definition of UDIP; however, the Board makes no finding on that issue.

Water Quality Standards for UDIP. At first notice, the Board designated UDIP as General Use for aquatic life based on its finding that UAA factors do not justify an aquatic life use less than the CWA Goal. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 221 (Feb. 21, 2013). However, the Board recognized that UDIP may not fully attain the CWA goal by noting that the water quality standards in the area of temperature may need to be adapted for UDIP. *Id.* The Board notes that IEPA has raised concerns regarding the Board’s approach of designating UDIP as General Use and adjusting the applicable General Use water quality standards in Subdocket D. As noted above, IEPA states that it would be difficult to obtain USEPA’s approval of water quality standards for UDIP that deviates from General Use standards for waters designated as General Use. PC 1373 at 19-20. The Board agrees with IEPA that the General Use designation may raise issues during the approval process. However, the Board believes that the proposed UDIP ALU designation along with the above clarification regarding the attainment of CWA aquatic life goal address any concerns regarding the approvability of water quality standards for UDIP.

Potential Inconsistency Between General Use and Recreational Use Designations. Several participants voice concern regarding the application of General Use designation for only aquatic life in UDIP, since General Use waters in Illinois are considered to be fishable and swimmable and able to meet both CWA goals. The participants raise a valid point that designating UDIP as General Use for aquatic life use alone may be inconsistent with the Board’s prior decision in Subdocket A, where the Board found that the CWA recreational (swimmable) goal is not attainable in UDIP. See Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(A), (Aug. 5, 2010 and Aug. 18, 2011). The Board did not intend to cause confusion when designating UDIP as General Use. Rather, the designation of General Use was a reflection of the record that demonstrates UDIP is very near meeting the CWA goal of fishable. However, the Board finds that the new designation of UDIP ALU Waters will alleviate any concerns about inconsistency in the application of General Use designation. Further, the Board notes that the UDIP ALU designation also address participants’ concerns regarding a potential problem related to the timing of applying General Use designation. Had the Board continued with designation of UDIP as General Use, all General Use

water quality standards could have been immediately applied to UDIP. Thus, revising the UDIP's aquatic life use designation alleviates this concern since the standards for UDIP would be adopted in Subdocket D.

Applicability of Part 302, Subpart F Procedures. Finally, many participants asked about the applicability of Part 302, Subpart F to UDIP based on the proposed General Use designation. The Board notes that Subpart F procedures are applicable to General Use waters as set forth in Section 302.210 (a), (b) and (c). As noted above, had the Board continued with designation of UDIP as General Use, Subpart F could have been immediately applied to UDIP. However, the Board notes that with the revised UDIP ALU designation, Part 302, Subpart F procedures would not apply to UDIP pursuant to Section 302.210. The Board, however, notes that the IEPA's motion to amend filed in Subdocket D on May 24, 2013 includes amendments to Sections 302.410 and 302.601 that extend the applicability of Subpart F procedures to all designated uses in the CAWS and LDPR. The Board will address the merits of applying Subpart F to CAWS and LDPR in Subdocket D.

ALU Definitions

USEPA comments that the ALU definitions seem to protect only fish and not other aquatic life and offered suggestions including that the Board revert to the language proposed by IEPA. IEPA takes issue with using fish species in the definitions and suggests a continuum of tolerance be used instead. IEPA also recommends against the use of the term "native", the phrase "a balanced integrated, adaptive community", and "waste transport or waste assimilation". IEPA suggests stating only what the waters are capable of achieving and reverting to its proposed language.

The District, Environmental Groups, Citgo/PDV and Midwest Generation support the use of fish species and suggest specific changes to the species. The Environmental Groups also ask that the definitions clarify that fish eggs, larvae, and young-of-the-year fish have been found in both ALU A and ALU B waters and should be protected. Some participants ask that the definition for ALU B include a reference to the electric barrier in the CSSC as a protected use.

Stepan continues its argument from pre-first-notice that it is unnecessary to use terms like "tolerant" and "moderately tolerant" with regard to fish species and to list fish species in the definition. Stepan argues that water quality standards need not address "biological intent".

USEPA and IEPA offered specific suggestions to the proposed second notice definitions. The Board discusses those comments below.

Inclusion of Fish Species

Participants, for the most part, found the inclusion of fish species to be helpful in understanding the degrees of "tolerance". The Board appreciates IEPA's concerns regarding the inclusion of fish species and the application of tolerance levels. The Board notes that the proposed revisions are not intended to change how the tolerance levels are applied to define the aquatic life uses, but they are meant to provide clarity by giving examples of the fish species. As

noted by a number of participants, the Board continues to believe that the inclusion of the fish species is helpful to understand the biologic intent represented by the tolerance levels initially proposed by IEPA. Therefore, the Board will retain the fish species with some changes. For example, the Board will retain the phrase “but not limited to” for purposes of clarifying the list is not exhaustive. Additionally, as discussed below, the Board has reformatted the definitions by dividing them into subsections to clarify the proposed intent.

As to specific suggestions for deletion or additions of species, the Board will delete the northern pike from the definition of CAWS ALU A. The northern pike was documented in the CAWS UAA as being found in the Upper North Shore Channel and Chicago River, and in the UIW Ecosystem Study in the Lower Dresden Pool and downstream of the Dresden Lock and Dam. *See Attach B and LL.* Because northern pike is more limited in distribution, as noted by MWRD, the Board replaces it with the channel catfish, which is documented as occurring more widely. The UIW Ecosystem Study indicated channel catfish was found in the Lower Dresden Pool and downstream of the Dresden Lock and Dam. *See Attach LL.* The CAWS UAA found channel catfish in the Calumet River from Lake Michigan to Torrence Ave., Lake Calumet, Little Calumet River, Calumet-Sag Channel, CSSC, and the UNSC. *See Attach B.* In addition, the IDNR rotenone project identified channel catfish in the CSSC and Little Calumet River.

The next species suggested for deletion was the tadpole madtom that was documented from the CAWS UAA as being in the Little Calumet, and the UIW Ecosystem Study reported it from the Lower Dresden Pool. *See Attach B and LL.* However, the District states that it has not collected a single tadpole madtom over the past 12 years in the CAWS. PC 1374 at 5. Because of this limited record, tadpole madtom will be deleted. Additionally, the Board will also add common carp to the ALU B definitions as suggested by Midwest Generation. IEPA points out that the Board included “carp” not “common carp” in the definition, and the Board will correct that listing.

Citgo/PDV responded to the proposed second notice asking that emerald shiner be added into the fish species list in the definition of ALU B. The Board does not intend that the list of fish species be exhaustive. But rather that the fish species be helpful to understand the biologic intent represented by the tolerance levels. While the Board agrees that emerald shiner is an example of the tolerant aquatic life present in ALU B waters, the Board does not believe the addition of emerald shiner to the definition of ALU B is necessary since that definition already includes several examples of tolerant fish specie. Therefore, the Board declines to augment the fish species list in the definition of ALU B waters.

The Board developed the list of species for UDIP aquatic life use using the CAWS and LDPR UAAs, the UIW Ecosystem Study, and the IDNR 2010 Rotenone Project. *See Attach A, B, LL and PC 505.* The fish species that will be included as examples are: largemouth bass, bluntnose minnow, channel catfish, orange-spotted sunfish, smallmouth bass, and spottail shiner.

In its comments to the proposed second notice, IEPA suggests that “shorthead redhorse” be added to the list of species in the UDIP, since the proposed definition contains only one example of intolerant species. IEPA asserts that the addition of shorthead redhorse improves the representativeness of the list of fish species. The Board agrees with IEPA will include

shorthead redhorse to the list of fish species in the definition of UDIP. IEPA also noted that “orange spotted” should be “orangespotted” and the Board will make that correction.

USEPA’s concern that the list of species includes only fish, and the Environmental Groups’ concern that the list should also include fish eggs, larvae, and young-of-the-year will also be addressed by making clear that the waters are capable of supporting “aquatic-life populations”. The Board did not intend to limit the use designations to protect only fish species or adult forms. The Board’s use of fish species is intended to aid in understanding the conditions of the water. The Board believes that adding examples of species of macroinvertebrates or other aquatic life would not be useful to at this time; therefore, the Board will not add specific species of macroinvertebrates or other aquatic life.

While the Board agrees with Stepan that the use of “tolerant” and “moderately tolerant” may not be the ideal terms to use in the definitions of aquatic life uses, those terms are helpful in distinguishing the biological potential of the waters. Further, the Board believes that the changes made at first notice and here at second notice in response to comments have substantially improved the definitions. Therefore, the Board will proceed with “tolerant” and “moderately tolerant” as those terms have been further explained in the definitions.

In its second notice comment, IEPA suggests that in the ALU A and UDIP definitions, the word phrase “moderately tolerant” be changed to “intermediately tolerant”. USEPA agrees with this suggestion. IEPA maintains that “intermediately tolerant” is more inclusive than “moderately tolerant” and is the more appropriate term. The Board will make that change in the definitions.

Use of “Balanced, Integrated, Adaptive Community”

The CWA establishes a goal “to restore and maintain the chemical, physical and biological integrity of the Nation’s waters.” 33 U.S.C. §1251(a). Other than the tolerance levels, IEPA’s ALU definitions did not address the biological characteristics of an ALU A or B water. The Board attempted to clarify the ALU definitions by using the phrase “a balanced, integrated, adaptive community” which is a part of the definition of biological integrity defined by Karr and Dudley (1981). *See Ecological perspective on water quality goals*, J. R. Karr and D. R. Dudley, 1981, *Environmental Management* 5:55-68.² The phrase was intended to be a way of stating that the waters did not meet the CWA goal. To provide greater clarity the Board included the remainder of that definition in the proposed second notice to state that the waters are not “presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region”. This language was used in a separate subsection in all three aquatic life use definitions.

² “Biological integrity” was defined as “the capability of supporting and maintaining a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region.” Karr, J.R. and D.R. Dudley (1981). *Ecological perspective on water quality goals*, J. R. Karr and D. R. Dudley, 1981, *Environmental Management* 5:55-68.

In their comments to the proposed second notice, both USEPA and IEPA express concern regarding the proposed biologic characteristics language under Sections 303.230(a)(2), (b)(2) and 303.235(b). They note the proposed subsections do not clearly make the distinction between the “interim” CWA goal versus the “ultimate” CWA goal in their second notice comments. IEPA is particularly concerned that the addition of the above language confuses the ultimate goal of the CWA articulated in Section 101(a) with the interim goal articulated in Section 101(a)(2) (33 U.S.C. §1251(a) and (a)(2)). The Board’s proposal was attempting to explain that the waters could not meet the objective “to restore and maintain the chemical, physical and biological integrity of the Nation’s waters.” 33 U.S.C. §1251(a). However, to eliminate any potential confusion, the Board will remove the language describing the biologic condition not supported by the aquatic life use designations at Sections 303.230(a)(2), (b)(2) and 303.235(b). Instead, the Board will add the language suggested by USEPA that notes that the waters are not capable of maintaining aquatic life use consistent with the CWA Section 101(a)(2) goal to ALU A and ALU B definitions.

Electric Barrier

The Board agrees that the electric barrier is at least for now a “temporary” use that is protected in the lower CSSC, which is designated an ALU B water. However, inclusion of the electric barrier in the definition of ALU B waters would not be correct as the electric barrier is not in place in all ALU B waters. Also, even though this barrier restricts movement of fish, water continues to move downstream, which affects fish there, which will be a consideration when examining water quality standards in Subdocket D.

Citgo/PDV and IERG continue to urge the inclusion of the electric barrier in the definition of ALU B waters in their comments on the proposed second notice. The Board will acknowledge that the electric barriers are most likely permanent and that the record provides evidence of that fact. The Board is also willing to recognize that the electric barriers are an existing use in the CSSC. However, as the CSSC is not the only water segment being designated as ALU B, Brandon Pool is also an ALU B water. The Board is not inclined to add another use designation to address the presence of electric barriers in the CSSC at this juncture of the rulemaking, since the proposed definition does not preclude the use of such barriers. Therefore, the Board will not add the electric barrier to the definition of ALU B waters.

Defining Aquatic Life Uses

The Board looked to the outstanding resource waters definitions in Section 303.205 to ensure consistency in the formatting of the definitions. As a result, the Board is dividing the definitions into subsections so that language and intent are clear. The distinctions between the definitions are subtle, but significant. UDIP aquatic life use includes waters that are nearly capable of meeting the CWA goal and includes aquatic-life populations consisting of individuals of tolerant, moderately tolerant, and intolerant types. By contrast, ALU A waters are capable of maintaining aquatic life populations predominated by individuals of tolerant and moderately tolerant types. ALU B waters have irreversible modifications and are capable of maintaining aquatic life populations predominated by individuals of tolerant types.

In the Board's proposed second notice, the definition of UDIP Aquatic Life Use was added to Section 303.230 and that section renamed and renumbered to accommodate the inclusion. IEPA urges the Board to include the definition of UDIP in its own section or to at least group ALU A and ALU B waters into one definition. The Board cannot open a new section at second notice, but will give each aquatic life use definition its own section when moving forward with Subdocket D. The Board will accept IEPA's suggestion to include ALU A and ALU B in the same section at this time, Section 303.235 and place UDIP in its own section, Section 303.230. The rule will be renumbered and titled consistent with this change.

In its comments on the proposed second notice, USEPA suggested that the phrase "and shall have quality sufficient to protect" be added in each definition in after the phrase "capable of maintaining". The Board agrees that this phrase clarifies the definitions and will add that phrase to each definition.

ALU A. The list of waters designated as ALU A is not changed and will not be repeated here. The Board proposed the following definition for ALU A at proposed second notice:

- a) Aquatic Life Use A Waters
 - 1) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are capable of maintaining aquatic life populations predominated by individuals of tolerant and moderately tolerant types that are adaptive to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system. Such aquatic life may include, but is not limited to, fish species, such as channel catfish, largemouth bass, bluegill, black crappie, spotfin shiner, orangespotted sunfish common carp, and goldfish.
 - 2) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region, due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system.
 - 3) The following waters are designated as Chicago Area Waterway System Aquatic Life Use A Waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:

In addition to the comments discussed above regarding the definitions, USEPA and IEPA suggested additional language. Specifically, IEPA suggested that subsection two be removed and the following phrase added at the end of subsection one: "These waters are not capable of attaining balanced aquatic life." USEPA suggested that a reference to the CWA be added after

“maintaining” with the remainder of subsection two stricken. As discussed above, the Board will delete some of subsection two and accepts USEPA’s recommendation. The Board believes USEPA’s recommendation to cite the CWA encompasses the concerns raised by IEPA and is clearer. Therefore, at second notice the Board will propose the following definition for ALU A, with changes shown from the proposed second notice with double underline and double strikethrough:

a) Chicago Area Waterways System Aquatic Life Use A Waters

- 1) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are capable of maintaining, and shall have quality sufficient to protect, aquatic life populations predominated by individuals of tolerant and ~~moderately~~ intermediately tolerant types that are adaptive to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system. Such aquatic life may include, but is not limited to, fish species, such as channel catfish, largemouth bass, bluegill, , black crappie, spotfin shiner, orangespotted sunfish, common carp, and goldfish.
- 2) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are not ~~presently~~ capable of ~~maintaining~~ attaining an aquatic life use consistent with the Section 101(a)(2) of the Clean Water Act goal (33 U.S.C. §1251(a)(2)) ~~a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region, due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system.~~
- 3) The following waters are designated as Chicago Area Waterway System Aquatic Life Use A Waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:

ALU B. The list of waters listed as ALU B is not changed and will not be repeated here. The Board proposed the following definition for ALU B at proposed second notice:

Aquatic Life Use B Waters

- a) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are capable of maintaining aquatic life populations predominated by individuals of tolerant types that are adaptive to unique physical conditions and modifications of long duration, including artificially constructed channels consisting of vertical sheet-pile, concrete and rip-rap walls designed to support commercial navigation, flood control, and drainage functions in deep-draft, steep-walled shipping channels. Such aquatic life may include, but is not

limited to fish species, such as carp, golden shiner, bluntnose minnow, yellow bullhead and green sunfish.

- b) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to the natural habitat of the region due to irreversible modifications that result in limited physical habitat and stream hydrology.
- c) The following waters are designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:

In addition to the comments discussed above regarding the definitions, USEPA and IEPA suggested additional language. Specifically, IEPA suggested that subsection two be removed and the following phrase added at the end of subsection one: “These waters are not capable of attaining balanced aquatic life.” USEPA suggested that a reference to the CWA be added after “maintaining” with the remainder of subsection two stricken. As discussed above, the Board will delete some of subsection two and the Board will accept USEPA’s recommendation. The Board believes USEPA’s recommendation to cite the CWA encompasses the concerns raised by IEPA and is clearer. Therefore, at second notice the Board will propose the following definition for ALU B with changes shown from the proposed second notice with double underline and double strikethrough:

- b) Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters.
 - 1) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are capable of maintaining, and shall have quality sufficient to protect, aquatic life populations predominated by individuals of tolerant types that are adaptive to unique physical conditions and modifications of long duration, including artificially constructed channels consisting of vertical sheet-pile, concrete and rip-rap walls designed to support commercial navigation, flood control, and drainage functions in deep-draft, steep-walled shipping channels. Such aquatic life may include, but is not limited to fish species, such as common carp, golden shiner, bluntnose minnow, yellow bullhead and green sunfish.
 - 2) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are not ~~presently~~ capable of maintaining attaining an aquatic life use consistent with the Section 101(a)(2) of the Clean Water Act goal (33 U.S.C. §1251(a)(2)) ~~a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to the natural habitat of~~

~~the region due to irreversible modifications that result in limited physical habitat and stream hydrology.~~

- 3) The following waters are designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:

UDIP. As discussed above, the Board will amend the rules to designate a UDIP aquatic life use. The definition will be formatted similarly to the ALU A and ALU B definitions. The Board proposed the following definition for UDIP aquatic life use at proposed second notice:

b) Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters.

- 1) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are capable of maintaining, and shall have quality sufficient to protect, aquatic life populations predominated by individuals of tolerant types that are adaptive to unique physical conditions and modifications of long duration, including artificially constructed channels consisting of vertical sheet-pile, concrete and rip-rap walls designed to support commercial navigation, flood control, and drainage functions in deep-draft, steep-walled shipping channels. Such aquatic life may include, but is not limited to fish species, such as common carp, golden shiner, bluntnose minnow, yellow bullhead and green sunfish.
- 2) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are not ~~presently~~ capable of ~~maintaining~~ attaining an aquatic life use consistent with the Section 101(a)(2) of the Clean Water Act goal (33 U.S.C. §1251(a)(2)) ~~a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to the natural habitat of the region due to irreversible modifications that result in limited physical habitat and stream hydrology.~~
- 3) The following waters are designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:

In addition to the comments discussed above regarding the definitions, USEPA and IEPA suggested additional language. Specifically, IEPA suggested the deletion of subsection (b) and the following phrase added at the end of subsection (a): “These waters are capable of attaining balanced aquatic life.” USEPA suggested that a reference to the CWA be added at the end of subsection (a) noting that the waters can attain the CWA goal. The Board agrees to remove subsection (b) entirely from the rule; however the Board will not add the additional language suggested to subsection (a). Therefore, at second notice the Board will propose the following for

UDIP with changes shown from the proposed second notice with double underline and double strikethrough:

- a) Lower Des Plaines River from the Brandon Road Lock and Dam to the Interstate 55 bridge ~~shall be~~ is designated as the Upper Dresden Island Pool Aquatic Life Use. These waters are capable of maintaining, and shall have quality sufficient to protect, aquatic-life populations consisting of individuals of tolerant, moderately intermediately tolerant, and intolerant types that are adaptive to the unique flow conditions necessary to maintain navigational use and upstream flood control functions of the waterway system. Such aquatic life may include, but is not limited to largemouth bass, bluntnose minnow, channel catfish, ~~orange-spotted orangespotted~~ sunfish, smallmouth bass, shorthead redhorse, and spottail shiner.
- ~~b) Upper Dresden Island Pool Aquatic Life Use Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use and flood control functions of this waterway system.~~
- b) Upper Dresden Island Pool Aquatic Life Use Waters must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D.

General Use Designation for Chicago River

IEPA notes that USEPA has approved changing the recreational use of the Chicago River from General Use to Primary Contact Use, although “there may be no practical difference” between the two. PC 1373 at 22. IEPA recommends that if the Board retains the General Use designation for the Chicago River for aquatic life uses that the Board also maintain Primary Contact Use for recreational purposes, “even though there should be no practical distinction between the two recreational use designations”. *Id.* IEPA also reiterates its proposal of ALU B designation for the Chicago River. *Id.* at 24.

The Board’s proposal for aquatic life use designations was in no way intended to change or alter the Board’s decision in Subdocket A (Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(A), (Aug. 18, 2011)). The Chicago River’s existing use was General Use. The Board found that the Board “will amend the recreational use designation to be consistent with the Primary Contact Recreational use standard that is proposed for the remainder of the applicable CAWS segments, but this will not lower the current use.” *Id.* at slip op. 38. Thus, even in designating the Chicago River as Primary Contact Recreational, the Board made clear that the recreational use was not being lowered from General Use. The Board will retain the “Primary Contact Recreational” use designation for the Chicago River, while recognizing that there is no difference between “Primary Contact Recreational” and General Use recreational designation.

As to IEPA's suggestion that the aquatic life use designation in the Chicago River be downgraded General Use to ALU B, the Board remains unconvinced that the record supports such a change. The Board's finding that the UAA Factors did not justify a change to the designation is sound. As the Board stated:

The existing water quality and fish assemblage, have been impacted by hydrologic modifications, but not to such an extent that the CWA goals cannot be achieved in the foreseeable future. The Board believes this is especially true given the redesignation of recreational use in the Chicago River to primary contact with corresponding water quality standards, which should improve overall water quality in the Chicago River.

Although physical conditions, such as a lack of adequate habitat to sustain populations, may impact the fish assemblage, the Board finds that the impact is not so great as to prevent attainment of the CWA goals in the foreseeable future. The Board also finds no reason to support jeopardizing a decline in water quality based on one attribute of the Chicago River. Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 190 (Feb. 21, 2013).

The Board will not revisit the designation of the Chicago River as General Use for aquatic life.

Bubbly Creek

The District supports the Board's action to open Subdocket E to address issues associated with the South Fork of the South Branch of the Chicago River (Bubbly Creek). However, the District is concerned that the Board's proposal to designate the South Branch of the Chicago River as ALU A could be interpreted to include Bubbly Creek. PC 1374 at 3. The District requests the Board either "clarify that any aquatic life use designated for the South Branch of the Chicago River would not apply to Bubbly Creek" or adopt a narrative standard for Bubbly Creek at the conclusion of Subdocket E.

The Board finds that adding clarifying language is unnecessary. Throughout this proceeding the South Branch of the Chicago River and the South Fork of the South Branch of the Chicago River (Bubbly Creek) have been treated separately. The recreational use designations in Subdocket A are separate (*see* 35 Ill. Adm. Code 303.220 and 303.225). Therefore, the Board declines to clarify that the South Branch of the Chicago River designated as ALU A does not include Bubbly Creek in the rule language. However, the Board notes that Bubbly Creek will be subject to the Board's secondary contact and indigenous aquatic life use standards under Part 302 Subpart D pursuant to Section 302.304 until specific use designation and water quality standards are adopted in Subdocket E. The current Subpart D water quality standards will remain in effect until they are amended or repealed in Subdocket E.

CSSC ALU B Designation

As discussed above, USEPA asked for further clarification on the Board's designation of the CSSC as an ALU B water. While Citgo/PDV originally sought an ALU C classification, Citgo/PDV accepts the ALU B designation but has suggestions for the definition, which the Board also discussed above. Ingridion reiterates its concern with the proposed ALU B designation for the CSSC and continues to argue for an ALU C designation for the entire CSSC. The Board appreciates the concerns of Ingridion; however, the Board remains convinced that a separate aquatic life use designation is not necessary for the CSSC.

Brandon Pool ALU B Designation

As discussed above, USEPA asked for further clarification on the Board's designation of the Brandon Pool as an ALU B water. The Environmental Groups continue to argue for an ALU A designation for Brandon Pool. The Board has examined the record and the arguments put forth and finds that the ALU B designation made at first-notice is appropriate for Brandon Pool. The record does not support a designation of ALU A for Brandon Pool.

Delayed Effective Date

With regard to delaying the effective date of the use designations, the Board declines to do so. While the first-notice proposal designated UDIP as General Use and that designation had potential immediate consequences, the aquatic life use designations proposed at second notice do not have immediate consequences. Section 302.304 provides in part:

These waters are required to meet the secondary contact and indigenous aquatic life standards contained in 35 Ill. Adm. Code 302, Subpart D, but are not required to meet the general use standards or the public and food processing water supply standards of 35 Ill. Adm. Code 302, Subpart B and C . . . 35 Ill. Adm. Code 302.304.

That language is not being amended or repealed, so even with a new use designation, the water quality standards currently in place remain in effect until amended or repealed in Subdocket D.

Issues Raised That Will Be Considered in Subdocket D

Chlorides

ExxonMobil and IERG raise the issue of chlorides and urge the Board to account for the concern that the chloride standard cannot be met when designating aquatic life uses. The Board agrees that chloride levels in the waters will need to be addressed in CSSC and LDPR. The Board believes that the proposed ALU designations for CSSC, Brandon Pool and UDIP allow for the consideration of chloride issues in adopting water quality standards. The Board will consider appropriate chloride levels in Subdocket D.

Connectivity of the System

The Board invited comment on the issue of connectivity stating: “[t]he data presented in the record emphasize stream segments, but do not appear to address the larger aquatic systems and the connectivity inherent to these systems.” Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(C), slip op. at 175 (Feb. 21, 2013). Participants did offer comment on this issue; however, after reviewing these comments, the Board believes that the connectivity of the system is an issue to consider in Subdocket D.

Economic Reasonableness and Technical Feasibility

As stated above, Section 27 of the Act requires the Board to consider “the existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution.” 415 ILCS 5/27(a) (2012). In this rulemaking these considerations are particularly unique. The record is replete with evidence of the unique character and history of both the CAWS and LDPR, and the economic importance of the waters is also clear. USEPA questions the Board’s findings concerning low flow conditions, the impact of hydrologic modifications and the Board’s basis for finding that the waters could not be restored to original conditions in a way that would result in meeting the CWA goal. As the Board explained above, the record clearly demonstrates that the Board’s findings are supported by the record and the Board has provided USEPA with additional citations to evidence supporting the Board’s decisions. Equally important though is that in most instances restoring the waters to the original condition, correcting low flow, and even easing impacts of hydrologic modifications are neither economically reasonable or technically feasible.

The Board finds that the record supports the Board’s findings at first-notice and here at second notice. Further, the Board finds that the proposed rule as adopted at first-notice and as amended in this second-notice opinion and order is economically reasonable and technically feasible.

Changes to the Rule Language

The Board has also amended the rule language to provide consistency in the rule. Specifically, each segment is named consistent with the names used in Subdocket A. *See* Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System and Lower Des Plaines River: Proposed Amendments to 35 Ill. Adm. Code 301, 302, 303, and 304, R08-9(A), (Aug. 18, 2011)).

CONCLUSION

The Board adopts a second notice opinion and order that follows a proposed second notice the Board adopted on October 3, 2013. The Board adopted the proposed second notice to allow for comments on changes made in the rule as a result of comments received from participants during first notice. The proposed second notice included a decision by the Board to revisit the designation of the UDIP as a General Use water. Upon re-examination, the Board

proposed a UDIP aquatic life use rather than designating UDIP as General Use. Today the Board continues with the UDIP aquatic life use designation, making changes suggested in the comments to the proposed second notice.

In addition, in the proposed second notice, the Board amended the definitions of ALU A and ALU B, in response to concerns raised in the first-notice comments. The Board received additional comments from participants on the definitions in response to the proposed second notice and has made additional changes to the definitions suggested in those comments.

Today the Board proposes the rule for second notice and directs the Clerk to submit the rule to the Joint Committee on Administrative Rules (JCAR) pursuant to Illinois Administrative Procedure Act (IAPA) (5 ILCS 100/5-40 (2012)).

ORDER

The Board directs the Clerk to provide the following rule to the Joint Committee on Administrative Rules for second notice review:

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

PART 303

WATER USE DESIGNATIONS AND SITE-SPECIFIC WATER QUALITY STANDARDS

SUBPART A: GENERAL PROVISIONS

Section	
303.100	Scope and Applicability
303.101	Multiple Designations
303.102	Rulemaking Required (Repealed)

SUBPART B: NONSPECIFIC WATER USE DESIGNATIONS

Section	
303.200	Scope and Applicability
303.201	General Use Waters
303.202	Public and Food Processing Water Supplies
303.203	Underground Waters
303.204	Chicago Area Waterway System and Lower Des Plaines River Outstanding Resource Waters
303.205	Outstanding Resource Waters
303.206	<u>List of Outstanding Resource Waters</u>
303.220	Primary Contact Recreation Waters
303.225	Incidental Contact Recreation Waters
303.227	Non-Contact Recreation Waters and Non-Recreational Waters

- 303.230 ~~Chicago Area Waterway System Aquatic Life Use A Waters and Upper Dresden Island Pool Aquatic Life Use Waters~~
- 303.235 Chicago Area Waterway System Aquatic Life Use A Waters and Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters

SUBPART C: SPECIFIC USE DESIGNATIONS AND SITE
SPECIFIC WATER QUALITY STANDARDS

Section

- 303.300 Scope and Applicability
- 303.301 Organization
- 303.311 Ohio River Temperature
- 303.312 Waters Receiving Fluorspar Mine Drainage (Repealed)
- 303.321 Wabash River Temperature
- 303.322 Unnamed Tributary of the Vermilion River
- 303.323 Sugar Creek and Its Unnamed Tributary
- 303.326 Unnamed Tributary of Salt Creek, Salt Creek, and Little Wabash River
- 303.331 Mississippi River North Temperature
- 303.341 Mississippi River North Central Temperature
- 303.351 Mississippi River South Central Temperature
- 303.352 Unnamed Tributary of Wood River Creek
- 303.353 Schoenberger Creek; Unnamed Tributary of Cahokia Canal
- 303.361 Mississippi River South Temperature
- 303.400 Bankline Disposal Along the Illinois Waterway/River
- 303.430 Unnamed Tributary to Dutch Creek
- 303.431 Long Point Slough and Its Unnamed Tributary
- 303.441 Secondary Contact Waters (Repealed)
- 303.442 Waters Not Designated for Public Water Supply
- 303.443 Lake Michigan Basin
- 303.444 Salt Creek, Higgins Creek, West Branch of the DuPage River, Des Plaines River
- 303.445 Total Dissolved Solids Water Quality Standard for the Lower Des Plaines River
- 303.446 Boron Water Quality Standard for Segments of the Sangamon River and the Illinois River
- 303.447 Unnamed Tributary of the South Branch Edwards River and South Branch Edwards River
- 303.448 Mud Run Creek

SUBPART D: THERMAL DISCHARGES

Section

- 303.500 Scope and Applicability
- 303.502 Lake Sangchris Thermal Discharges
- 303.APPENDIX A References to Previous Rules
- 303.APPENDIX B Sources of Codified Sections

AUTHORITY: Implementing Section 13 and authorized by Sections 11(b) and 27 of the Environmental Protection Act [415 ILCS 5/13, 11(b) and 27].

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 27, p. 221, effective July 5, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 5 Ill. Reg. 11592, effective October 19, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended in R87-27 at 12 Ill. Reg. 9917, effective May 27, 1988; amended in R87-2 at 13 Ill. Reg. 15649, effective September 22, 1989; amended in R87-36 at 14 Ill. Reg. 9460, effective May 31, 1990; amended in R86-14 at 14 Ill. Reg. 20724, effective December 18, 1990; amended in R89-14(C) at 16 Ill. Reg. 14684, effective September 10, 1992; amended in R92-17 at 18 Ill. Reg. 2981, effective February 14, 1994; amended in R91-23 at 18 Ill. Reg. 13457, effective August 19, 1994; amended in R93-13 at 19 Ill. Reg. 1310, effective January 30, 1995; amended in R95-14 at 20 Ill. Reg. 3534, effective February 8, 1996; amended in R97-25 at 22 Ill. Reg. 1403, effective December 24, 1997; amended in R01-13 at 26 Ill. Reg. 3517, effective February 22, 2002; amended in R03-11 at 28 Ill. Reg. 3071, effective February 4, 2004; amended in R06-24 at 31 Ill. Reg. 4440, effective February 27, 2007; amended in R09-8 at 33 Ill. Reg. 7903, effective May 29, 2009; amended in R09-11 at 33 Ill. Reg. 12258, effective August 11, 2009; amended in R08-9(A) at 35 Ill. Reg. 15078, effective August 23, 2011; amended in R11-18 at 36 Ill. Reg. 18898, effective December 12, 2012; amended in R08-9(C) at 37 Ill. Reg. _____, effective _____.

SUBPART B: NONSPECIFIC WATER USE DESIGNATIONS

Section 303.204 Chicago Area Waterway System and Lower Des Plaines River

The Chicago Area Waterway System and Lower Des Plaines River Waters are designated to protect for primary contact recreation, incidental contact or non-contact recreational uses (except where designated as non-recreational waters), ~~and~~ commercial activity (including navigation and industrial water supply uses) and the highest quality aquatic life and wildlife attainable, limited only by the physical condition of these waters and hydrologic modifications to these waters. These waters are required to meet the secondary contact and indigenous aquatic life standards contained in 35 Ill. Adm. Code 302, Subpart D, but are not required to meet the general use standards or the public and food processing water supply standards of 35 Ill. Adm. Code 302, Subpart B and C, except that the waters designated as Primary Contact Recreation Waters in Section 303.220 must meet the numeric water quality standard for fecal coliform bacteria applicable to protected waters in 35 Ill. Adm. Code 302.209. Designated recreational uses and aquatic life use for each segment of the Chicago Area Waterway System and Lower Des Plaines River are identified in this Subpart.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

Section 303.220 Primary Contact Recreation Waters

The following waters are designated as Primary Contact Recreation Waters and must be protected for Primary Contact Recreation uses as defined in 35 Ill. Adm. Code 301.323. These

waters must meet the numeric water quality standard for fecal coliform bacteria applicable to protected waters in 35 Ill. Adm. Code 302.209.

- a) Lower North Shore Channel from North Side Water Reclamation Plant to confluence with North Branch of the Chicago River;
- b) North Branch of the Chicago River from its confluence with North Shore Channel to its confluence with South Branch of the Chicago River and Chicago River;
- c) Chicago River;
- d) South Branch of the Chicago River;
- e) Little Calumet River from its confluence with Calumet River and Grand Calumet River to its confluence with Cal~~Calumet~~-Sag Channel; and
- f) Cal~~Calumet~~-Sag Channel.

(Source: Amended at 37 Ill. Reg. _____, effective _____.)

Section 303.230 ~~Chicago Area Waterway System Aquatic Life Use A Waters Upper Dresden Island Pool Aquatic Life Use Waters~~

~~These waters are not presently capable of maintaining a balanced, integrated, adaptive community of warm-water fish and macroinvertebrates due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system. These waters are capable of supporting communities of native fish that are tolerant and moderately tolerant and may include, but are not limited to, sport fish species such as channel catfish, largemouth bass, bluegill, northern pike, and black crappie, and non-game fish species such as the tadpole madtom, and spotfin shiner, and orangespotted sunfish. The following waters are designated as Chicago Area Waterway System Aquatic Life Use A waters and must meet the water quality standards of 35 Ill. Adm. Code 302, Subpart D:~~

Upper Dresden Island Pool Aquatic Life Use Waters

- a) Lower Des Plaines River from the Brandon Road Lock and Dam to the Interstate 55 bridge shall be is designated as the Upper Dresden Island Pool Aquatic Life Use. These waters are capable of maintaining, and shall have quality sufficient to protect, aquatic-life populations consisting of individuals of tolerant, moderately intermediately tolerant, and intolerant types that are adaptive to the unique flow conditions necessary to maintain navigational use and upstream flood control functions of the waterway system. Such aquatic life may include, but is not limited to largemouth bass, bluntnose minnow, channel catfish, orange-spotted orangespotted sunfish, smallmouth bass, shorthead redhorse, and spottail shiner.

- ~~b) Upper Dresden Island Pool Aquatic Life Use Waters are not presently capable of maintaining a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region due to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use and flood control functions of this waterway system.~~
- b) Upper Dresden Island Pool Aquatic Life Use Waters must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D.

(Source: Added at 37 Ill. Reg. _____, effective _____.)

Section 303.235 Chicago Area Waterway System Aquatic Life Use A Waters and Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters

~~These waters are not presently capable of maintaining a balanced, integrated, adaptive community of warm water fish and macroinvertebrate community due to irreversible modifications that result in limited physical habitat and stream hydrology. Such These physical modifications are of long duration and may include artificially constructed channels consisting of vertical sheet pile, concrete and rip rap walls designed to support commercial navigation and the conveyance of stormwater and wastewater. These waters are capable of supporting primarily tolerant fish species, which may include but are not limited to central mudminnow, golden shiner, bluntnose minnow, yellow bullhead and green sunfish. The following waters are designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B waters and must meet the water quality standards of 35 Ill. Adm. Code 302., Subpart D:~~

- a) Chicago Area Waterways System Aquatic Life Use A Waters
- 1) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are capable of maintaining, and shall have quality sufficient to protect, aquatic life populations predominated by individuals of tolerant and moderately intermediately tolerant types that are adaptive to the unique physical conditions, flow patterns, and operational controls necessary to maintain navigational use, flood control, and drainage functions of the waterway system. Such aquatic life may include, but is not limited to, fish species, such as channel catfish, largemouth bass, bluegill, , black crappie, spotfin shiner, orangespotted sunfish, common carp, and goldfish.
 - 2) Waters designated as Chicago Area Waterway System Aquatic Life Use A Waters are not presently capable of maintaining attaining an aquatic life use consistent with the Section 101(a)(2) of the Clean Water Act goal (33 U.S.C. §1251(a)(2)) a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region, due to the unique physical conditions, flow patterns, and operational controls

~~necessary to maintain navigational use, flood control, and drainage functions of the waterway system.~~

- 3) The following waters are designated as Chicago Area Waterway System Aquatic Life Use A Waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:
- A) Upper North Shore Channel from Wilmette Pumping Station to North Side Water Reclamation Plant;
 - B) Lower North Shore Channel from North Side Water Reclamation Plant to confluence with North Branch of the Chicago River;
 - C) North Branch of the Chicago River from its confluence with North Shore Channel to its confluence with South Branch of the Chicago River and Chicago River;
 - D) South Branch of the Chicago River;
 - E) Calumet-Sag Channel;
 - F) Calumet River from Lake Michigan to its confluence with Grand Calumet River and Little Calumet River;
 - G) Little Calumet River from its confluence with Calumet River and Grand Calumet River to its confluence with Calumet-Sag Channel;
 - H) Grand Calumet River;
 - I) Lake Calumet; and
 - J) Lake Calumet Connecting Channel.
- b) Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters.
- 1) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are capable of maintaining, and shall have quality sufficient to protect, aquatic life populations predominated by individuals of tolerant types that are adaptive to unique physical conditions and modifications of long duration, including artificially constructed channels consisting of vertical sheet-pile, concrete and rip-rap walls designed to support commercial navigation, flood control, and drainage functions in deep-draft, steep-walled shipping channels. Such aquatic life may include, but is not limited to fish species, such as common carp, golden shiner, bluntnose minnow, yellow bullhead and green sunfish.

- 2) Waters designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B Waters are not presently capable of maintaining attaining an aquatic life use consistent with the Section 101(a)(2) of the Clean Water Act goal (33 U.S.C. §1251(a)(2)) a balanced, integrated, adaptive aquatic community of organisms having a species composition, diversity, and functional organization comparable to the natural habitat of the region due to irreversible modifications that result in limited physical habitat and stream hydrology.
- 3) The following waters are designated as Chicago Area Waterway System and Brandon Pool Aquatic Life Use B waters and must meet the water quality standards of 35 Ill. Adm. Code 302. Subpart D:
- A) Chicago Sanitary and Ship Canal; and
- B) Lower Des Plaines River from its confluence with Chicago Sanitary and Ship Canal to the Brandon Road Lock and Dam (Brandon Pool).

(Source: Added at 37 Ill. Reg. _____, effective _____.)

IT IS SO ORDERED.

I, Don A. Brown, Acting Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on November 21, 2013, by a vote of 4-0.



Don A. Brown, Acting Clerk
Illinois Pollution Control Board