

**STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES**

IN THE MATTER OF)	
)	
PETITION FOR MODIFICATION OF)	
LAKE MICHIGAN WATER)	
ALLOCATION FOR METROPOLITAN)	No. LMO-14-5
WATER RECLAMATION DISTRICT)	
OF GREATER CHICAGO)	

**FINAL ADMINISTRATIVE DECISION ON A PETITION FOR MODIFICATION
OF ALLOCATION PERMIT BY METROPOLITAN WATER RECLAMATION
DISTRICT OF GREATER CHICAGO**

By the Illinois Department of Natural Resources:

I. Legal Authority

This matter comes before the Illinois Department of Natural Resources, Office of Water Resources, ("Department") pursuant to its statutory authority under the Level of Lake Michigan Act, 615 ILCS 50, ("Act") and is conducted pursuant to the Allocation of Water from Lake Michigan administrative rule (17 Ill. Adm. Code 3730) ("Rule").

II. Procedural Background

This proceeding is based upon a Petition for Modification of an Allocation Permit ("Petition") brought by the Metropolitan Water Reclamation District of Greater Chicago ("Petitioner") pursuant to Section 3730.310 of the Rule. Upon notice of this proceeding, a Prehearing Conference was held November 13, 2014. The Alliance for the Great Lakes, the Natural Resources Defense Council, Openlands and the Sierra Club (collectively "Interveners"), the Illinois Environmental Protection Agency ("IEPA") and the Illinois Attorney General's Office intervened in this proceeding to participate along with Department Staff and Petitioner.

Discovery was filed and responded to by several parties. In the context of discovery, Petitioner objected to certain information requests by Interveners.

Pursuant to Prehearing Conference, to address Petitioner's discovery objection and to aid in the disposition of the proceeding by identifying the issues to be contested, Interveners were granted leave to file a Motion to Compel Discovery and were required to file a Statement of Contested Issues, both citing applicable provisions of the Act or the Rule to provide the substantive legal basis for each information request and for each contested issue. The remaining parties were granted leave to file responses. All parties participated in this Prehearing Conference and no party objected to this process for litigating this proceeding. A Prehearing Order was issued which provided in relevant part as follows:

- 1) Interveners are granted leave to file a Motion to Compel Discovery on or before April 17, 2015. Interveners' shall cite applicable provisions of the Level of Lake Michigan Act (615 ILCS 50) or the Department's Allocation of Water From Lake Michigan administrative rule (17 Ill. Admin. Code 3730) which provide the substantive legal basis for all requested information sought by said Motion.
- 2) Interveners shall file a Statement of Contested Issues on or before April 17, 2015. Interveners' shall cite applicable provisions of the Level of Lake Michigan Act (615 ILCS 50) or the Department's Allocation of Water From Lake Michigan administrative rule (17 Ill. Admin. Code 3730) which provide the substantive legal basis for each issue set forth in the Statement of Contested Issues. (March 27, 2015 Prehearing Order)

Interveners filed their Motion to Compel Discovery and Statement of Contested Issues. Petitioner filed responses to both Interveners' Motion to Compel Discovery and Statement of Contested Issues. Based on these filings, the Hearing Officer issued a Prehearing Order Identifying Contested Issues and Ruling upon Interveners' Motion to Compel ("Contested Issues Prehearing Order"). The Hearing Officer first considered Interveners' proposed contested issues. Interveners' Statement of Contested Issues listed twelve contested issues. The Hearing Officer determined that Interveners' first and second issues were appropriately available to be contested in this proceeding, as said issues appropriately cited and related to Section 3730.310, which applies modification proceedings. The Hearing Officer determined that Interveners' third through twelfth issues were not appropriately available to be contested in this proceeding.¹

¹ Interveners' twelfth issue was partially allowed to the extent that it might be appropriately relevant to Section 3730.310.

Intervenors' third issue cited no Rule Section and was determined to be outside the temporal scope of this proceeding. Intervenors' fourth through twelfth issues requested the consideration of proposed conservation measures, citing either no Rule section or Section 3730.304, and were determined to apply to the consideration of conservation measures in permit application proceedings, but not to Section 3730.310 permit modification proceedings. The Hearing Officer also determined that two issues in addition to Intervenors' contested issues were appropriately available to be contested in this proceeding. Based on the rulings on Intervenors' contested issues, the Hearing Officer ruled upon Intervenors' Motion to Compel, denying Intervenors' motion to compel responses to questions 1(a), 1(b), 1(d), 4, 5, 6, 8 and 10 and granting Intervenors' motion to compel response to question 11.

Next, pursuant to Prehearing Conference and Prehearing Order, Intervenors, IEPA and the Attorney General's Office filed written statements of position with respect to Petitioner's Petition for Modification.

Pursuant to a subsequent Prehearing Conference, a Prehearing Order was issued scheduling the filing of witnesses' written direct testimony and setting the Hearing for cross examining witnesses over their pre-filed written direct testimony on October 6, 2015. Petitioner filed written testimony of three witnesses. Intervenors filed written testimony of four witnesses and a Prehearing Memorandum. IEPA and Department Staff each filed written testimony of one witness.

After the filing of written direct testimony, Petitioner filed Petitioner's Emergency Motion to Quash Intervenors' Prehearing Memorandum and to Strike Intervenors' Pre-Filed Written Testimony. Intervenors filed a Response to Petitioner's Motion. On September 25, 2015, the Hearing Officer issued a Prehearing Order Ruling Upon Petitioner's Emergency Motion to Quash Intervenors' Prehearing Memorandum and to Strike Intervenors' Pre-Filed Written Testimony denying Petitioner's Motion and admitting Intervenors' Prehearing Memorandum and Pre-Filed Written Testimony for the limited purpose of an offer of proof regarding the determination set forth in the Contested Issues Prehearing Order ruling that Intervenors' third through twelfth issues were not appropriately available to be contested in this proceeding.

The hearing for this proceeding took place on October 6 and 7, 2015. Testifying for

purposes of cross examination at the hearing were Charles Melching, Jennifer Wasik and Edward Staudacher on behalf of Petitioner, Daniel Injerd on behalf of Department Staff and Scott Twait on behalf of IEPA. The record for the proceeding was kept open after the hearing to allow Petitioner to provide evidence of the mailing of notice of this proceeding to the regulatory service list. On or about November 16, 2015, the Department and parties received Petitioner's Proof of Service for the mailing of notice of this proceeding to the regulatory service list, which is allowed into the record.

Post-hearing briefs by the parties were agreed upon. Post-hearing initial briefs were filed by Petitioner, Interveners and IEPA. Post-hearing reply briefs were filed by Petitioner and Interveners.

Subsequently, Intervener filed a Motion for Leave to File Reply to Arguments Made by MWRD For The First Time In Its Response to Interveners' Post-Hearing Memorandum. As no objection to Interveners' Motion was made, Interveners' Motion is granted and Interveners' Reply to Arguments Made by MWRD For The First Time In Its Response to Interveners' Post-Hearing Memorandum is allowed into the record.

III. Issues Presented

The following issues are presented by the Department's Administrative Rule in this proceeding. The Department notes that the Department has a regulatory programmatic perspective in this proceeding, rather than the advocacy perspective of the parties. This difference is pointed out to explain why the Department herein addresses a number of issues presented in this proceeding that are in addition to the Identified Contested Issues that resulted from the parties' identification of issues. To ensure that the Department specifically addresses the parties' Identified Contested Issues, these issues are incorporated into the Department's regulatory programmatic issues.

- a. The first issue presented is whether, pursuant to Rule Section 3730.310(a), Petitioner meets the timing requirement prohibiting petitions on subjects for which a hearing has been held within the preceding six months.

- b. The second issue presented is whether, pursuant to Rule Section 3730.310(a), Petitioner meets the pleading requirements of Rule Section 3730.204(c).
- c. The third issue presented is whether, pursuant to Rule Section 3730.310(a), Petitioner meets the notice requirements of Rule Section 3730.206(a).
- d. The fourth issue presented is whether, pursuant to Rule Section 3730.101(b), Illinois' current total Lake Michigan water diversion amount allows for sufficient potential additional water diversion to grant Petitioner's requested modification increase.
- e. The fifth issue presented is whether, pursuant to Rule Section 3730.310(b), Petitioner has proven a basis sufficient to justify modification of its current allocation permit. Petitioner has pled the following bases for modifying its current allocation permit:
 - i. delay in the completion of TARP is a substantial change in circumstances justifying a change in water needs to Petitioner,
 - ii. change in the Illinois dissolved oxygen ("DO") regulatory standards is "notification received by the Department from the Illinois Environmental Protection Agency stating ... that standards affecting the water quality of the Chicago Area Waterway System have been changed" that justifies Petitioner's requested modification to its current allocation permit,
 - iii. modeling forecasts indicating that the upcoming reduction to 101 cfs will result in significant exceedances of water quality standards in the Chicago Area Waterway System ("CAWS") is a substantial change in circumstances justifying a change in water needs to Petitioner, or
 - iv. previous modeling significantly underestimated the amount of discretionary diversion needed to meet water quality is a substantial change in circumstances justifying a change in water needs to Petitioner.
- f. The sixth issue presented is, if Petitioner proves a basis for modification of its allocation permit pursuant to Rule Section 3730.310(b), what are the appropriate modified diversion amounts and permit terms and conditions to Petitioner's current Lake Michigan Water Allocation Permit.

IV. Determination of Issues

The Department makes the following findings of fact, conclusions of law and determinations of issues presented in reaching this Final Administrative Decision. Due to the contested nature of this proceeding, certain presented issues include Identified Contested Issues that were the subject of dispute and were addressed in briefs by the parties. To respect this posture of the case, the parties' briefs are relied upon in this Final Administrative Decision where possible. Pursuant to Rule Section 3730.202(c), the burden of proof in this modification proceeding lies with Petitioner. The standard of proof in this proceeding is the preponderance of the evidence.

- a. Pursuant to Rule Section 3730.310(a), does Petitioner meet the timing requirement prohibiting petitions on subjects for which a hearing has been held within the preceding six months.

Rule Section 3730.310(a) states the following pleading requirement regarding the timing requirement for petitions for modification: "If the Department finds that any such petition ... does not deal with a subject on which a hearing has been held within the preceding six months, a hearing shall be held ..."

Petitioner states in its Petition that no hearing has been held within the preceding six months on the subject matter of the Petition and, therefore, that the timing of the Petition is appropriate. (Petition, p. 4) No parties objected to this statement in Petitioner's Petition. Further, this statement is consistent with Department information and knowledge. Therefore, the Department finds that no hearing has been held within the preceding six months on the subject matter of the Petition and this proceeding. Based on the foregoing, the Department determines that Petitioner meets the Rule Section 3730.310(a) timing requirement prohibiting petitions on subjects for which a hearing has been held within the preceding six months.

- b. Pursuant to Rule Section 3730.310(a), does Petitioner meet the pleading requirement of Rule Section 3730.204(c).

Rule Section 3730.310(a) states the following pleading requirement regarding petitions for modification: "Petitions for modification must comply with Section 3730.204(c). If the

Department finds that any such petition is supported by an adequate statement of reasons, [and] is not plainly devoid of merit or frivolous ...” Rule Section 3730.204(c) states regarding the required contents of petitions: “In the case of a Petition for Modification, all information required under Section 3730.310 including reference to any change in circumstances or any information previously submitted pursuant to Section 3730.302 and any claimed errors in interpretation of the Act or rules.” Rule Section 3730.310(b) specifies two bases for modification that are relevant in to Petitioner’s Petition: “(1) Evidence of a substantial change in circumstances that results in a change in water needs of the entity:” and “(4) Notification received by the Department from the Illinois Environmental Protection Agency stating ... that standards affecting the water quality of the Chicago Area Waterway System have been changed.”

Petitioner provides in its Petition four bases for modification: (1) delay in the completion of TARP, (2) change in the Illinois dissolved oxygen (“DO”) regulatory standards, (3) new analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the Chicago Area Waterway System (“CAWS”), and (4) discovery that previous modeling significantly underestimated the amount of direct diversion needed to meet water quality. (Petition, p. 4-13) For each basis for modification, Petitioner provided an analysis justifying a change in its water needs including references to changes in its circumstances. (Petition, p. 4-13) Further, no parties have objected to Petitioner’s Petition. Therefore, the Department finds that Petitioner provided sufficient bases for its Petition, that Petitioner included references to changes in its circumstances, that the four bases are relevant to the bases for modification required of the Rule, and that Petitioner’s Petition is not plainly devoid of merit or frivolous. Based on the foregoing, the Department determines that Petitioner meets the Rule Section 3730.310(a) pleading requirement regarding petitions for modification.

c. Pursuant to Rule Section 3730.310(a), does Petitioner meet the notice requirements of Rule Section 3730.206(a).

Rule Section 3730.310(a) incorporates the following procedures and states the following notice requirement regarding petitions for modification: “... a hearing shall be held pursuant to Sections 3730.201 through 3730.215. Copies of each petition for modification shall be served

upon all parties to the allocation proceedings. A copy of the service list may be obtained from the Department.” Rule Section 3730.206(a) states regarding the required notice for proceedings on petitions for modification: “... The Department shall give notice of hearing in these cases as follows: (1) to all permittees; petitioners; the Counties of Cook, DuPage, Kane, Kendall, Lake, Will, and McHenry; the City of Chicago; the Metropolitan Water Reclamation District; the Illinois Environmental Protection Agency; and the Chicago Metropolitan Agency for Planning; and (2) by publication not less than twice in newspapers of general circulation in the immediate and remote areas that may be affected by diversions of Lake Michigan waters, such publications to be no longer than one week apart, and the hearing to be held within 10 days following date of last publication.”

Upon completion of the October 6 and 7, 2015, hearing, the record for the proceeding was kept open to allow Petitioner to provide evidence of the mailing of notice of this proceeding to the regulatory service list. On or about November 16, 2015, the Department and parties received Petitioner’s Proof of Service for the mailing of notice of this proceeding to the regulatory service list, which included the entities listed in Rule Section 3730.206(a)(1). (See Petitioner’s Proof of Service) No parties have objected to Petitioner’s Proof of Service or mail service for this proceeding. At hearing, Department Staff provided Notice of Publication by the Chicago Tribune of a Notice of Prehearing for this proceeding that was published on October 30, 2014, and on November 6, 2014, which was prior to the first Prehearing Conference in this proceeding held November 13, 2014. (Tr. 12-13; IDNR Ex. 1) No parties have objected to the publication notice for this proceeding. Therefore, the Department finds that Petitioner provided proper mail notice to the entities listed in Rule Section 3730.206(a)(1) and that the Department provided proper newspaper publication notice of (1) two publications no longer than one week apart and (2) the hearing to be held within 10 days following the date of last publication as required in Rule Section 3730.206(a)(2). Based on the foregoing, the Department determines that Petitioner meets the Rule Section 3730.310(a) notice requirement regarding petitions for modification.

- d. Pursuant to Rule Section 3730.101(b), does Illinois' current total Lake Michigan water diversion amount allow for sufficient potential additional water diversion to grant Petitioner's requested modification increase.

Rule Section 3730.101(b) states the following current total Lake Michigan water diversion amount requirement regarding petitions for modification: "This Part implements the Department's program for the apportionment of water to be diverted from Lake Michigan ... Consistent with the limitations expressed in a U.S. Supreme Court Decree (Wisconsin v. Illinois, 449 U.S. 48 (1980)), the Lake Michigan water so diverted, whether by way of pumpage for domestic purposes from the lake, the sewage effluent derived from which reaches the Illinois Waterway, or by way of storm runoff from the Lake Michigan watershed that is diverted into the Chicago Area Waterway System, or by way of direct diversion from the lake into the waterway, shall not exceed a 40 year running average of 3,200 cubic feet per second."

Department Staff provided the following testimony regarding whether Illinois' current total Lake Michigan water diversion amount allows for sufficient potential additional water diversion to grant Petitioner's requested modification increase:

The Department is responsible for ensuring that the Lake Michigan water allocation program is managed such that Illinois' diversion is in compliance with both the United States Supreme Court Decree [Wisconsin v. Illinois, 388 U.S. 426 (1967), as modified 449 U.S. 48 (1980)] and Illinois law (Level of Lake Michigan Act, 615 ILCS 50). Thus an important initial consideration for the Department is whether there is adequate water available to warrant further consideration of this request.

The United States Army Corps of Engineers (Corps) has the responsibility to perform the measurements and computations necessary to compute Illinois' diversion, and prepares and certifies reports of Illinois' diversion on an annual basis. The Corps has certified Illinois' diversion of water from Lake Michigan up and through the 2012 accounting year. Illinois' running average diversion (from 1980-2012) is 3,115 cfs, which is 85 cfs below the Court limit of 3200 cfs. The cumulative deviation over the same time period is 2,705 cfs-years, meaning Illinois has a surplus "water bank account". The Department also notes that since 1994, Illinois' diversion has been consistently below the Court limit of 3200 cfs. Finally, unofficial estimates of Illinois' diversion for water years 2012-2014 indicate that Illinois' diversion will continue a trend of being well below the Court limit, and that the cumulative deviation may double in size. (Direct Testimony of Daniel Injerd, p. 2)

After providing additional information regarding the Department's forecasting for future

domestic water use and stormwater runoff, the Department provided the following conclusion:

Evaluating this historic information, along with our forecasts of future domestic use contained in the Department's Lake Michigan water allocation for domestic water users, we conclude that the Department has an adequate supply of water available to consider this petition for a modification in the discretionary diversion allocation by the District. (Direct Testimony of Daniel Injerd, p. 3)

Pursuant to the foregoing Department Staff testimony, the certified Illinois' diversion of water from Lake Michigan up and through the 2012 accounting year indicates that Illinois' running average diversion (from 1980-2012) is 3,115 cfs, which is 85 cfs below the Court limit of 3200 cfs. Additionally, Department Staff's unofficial estimates of Illinois' diversion for Water Years 2012-2014 indicate that Illinois' diversion will continue a trend of being well below the Court limit. Based on this information, Department Staff concludes that the Department has an adequate supply of water available to consider this petition for a modification in the discretionary diversion allocation by the District. In fact, as Petitioner's requested modification is not to increase its current water use but rather to postpone a reduction to its water use, Petitioner's modified water use is already a part of the total Illinois diversion that is currently under the 3,200 cfs limit. Further, no parties have objected to the Petition for Modification on the basis of violating the regulatory 3,200 cfs limit. Therefore, the Department finds that Illinois' current total Lake Michigan water diversion amount allows for sufficient potential additional water diversion to grant Petitioner's requested modification increase without exceeding a 40 year running average of 3,200 cubic feet per second. Based on the foregoing, the Department determines that Petitioner meets the Rule Section 3730.101(b) requirement that Illinois' current total Lake Michigan water diversion amount allow for sufficient potential additional water diversion to grant Petitioner's requested modification increase.

- e. Pursuant to Rule Section 3730.310(b), has Petitioner proven a basis sufficient to justify modification of its current allocation permit.

Rule Section 3730.310(b) specifies two bases for modification of Petitioner's current allocation permit that are relevant in to Petitioner's Petition: "(1) Evidence of a substantial change in circumstances that results in a change in water needs of the entity;" and "(4)

Notification received by the Department from the Illinois Environmental Protection Agency stating ... that standards affecting the water quality of the Chicago Area Waterway System have been changed.”

Petitioner provides four bases for modification: (1) delay in the completion date of TARP, (2) change in the Illinois DO regulatory standards, (3) new analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS, and (4) discovery that previous modeling significantly underestimated the amount of direct diversion needed to meet water quality. (Petition, p. 4-13) Petitioner’s proposed four bases for modification are considered as follows:

i. Delay in completion date of TARP.

Petitioner provided the following information regarding the completion date of TARP:

Due to a variety of factors, the estimated TARP completion date that was the basis for the District’s abovementioned permit changed. At the time of the scheduled decrease in discretionary diversion to 101 cfs (October 1, 2014), construction on the Thornton and McCook reservoirs had not yet been completed. In fact, the District only began operating the Thornton Reservoir in 2015. Hrg. Tr. 221:3-224:5. The McCook Reservoir, on the other hand, will be constructed in 2 stages: Stage 1 will be completed in 2017 and Stage 2 will be completed in 2029. Pre-Filed Test. S. Twait, 2 (Aug. 11, 2015). Accordingly, the water quality impacts of decreasing discretionary diversion could no longer be offset by the completion of TARP in 2014. (Petitioner’s Brief In Support, pp. 22-24)

No parties have contested the scheduled completion dates of 2017 for McCook Reservoir Stage 1 and 2029 for McCook Reservoir Stage 2. (Direct Testimony of Daniel Injerd, pp. 3-4; IEPA Brief, p. 2; Interveners’ Brief, pp. 2-3)

Petitioner provided the following argument in support for the delay in completion of TARP to provide a basis to justify Petitioner’s requested modification to its current allocation permit:

Specifically, at the time the DNR issued the District’s current permit, it was assumed that TARP could be completed by 2015. That expected completion date has now changed to 2029.

This change is substantial because the scheduled reduction of the District’s permitted allocation limit was premised on the prediction that TARP would be completed in 2015, thus

reducing the “water needs” of the District relative to its voluntary stewardship of the CAWS. In fact, the testimony offered by DNR at the hearing on that allocation recognized that “[t]he reduction in discretionary diversion from 270 cfs to 101 cfs in water year 2015 is based upon the expected completion of TARP.” Test. of D. Injerd, DNR, LM 00-01, p. 2 (Jul. 19, 2000). The resulting administrative order expressly recognized this correlation between the completion of TARP and the water needs of the District. Accordingly, that order instructed that “a proceeding for modification may need to occur” if TARP was not completed as expected. IDOT Order – In the Matter of L. Mich. Water Allocation, LMO 00-01, p. 1 (Sep. 20, 2000).

...

Thus, the abovementioned change in circumstance related to the completion of TARP, in and of itself, is a sufficient basis for the DNR to modify its allocation for discretionary diversion. The record contains no evidence to the contrary. (Petitioner’s Brief In Support, pp. 22-24)

Department Staff provided the following testimony on this issue: “The Department concurs with the District that the Petition for Modification of their Lake Michigan Water Allocation is both timely and, due to factual changes relating to the completion of TARP, is of sufficient merit to warrant consideration by the Department as provided in the Department’s Lake Michigan water allocation rules (17 Ill. Admin. Code 3730.310(a)(b).” (Direct Testimony of Daniel Injerd, pp. 1-2) “The Department has long recognized that there are uncertainties that can impact the District’s allocation for discretionary diversion, primarily the schedule for the completion of the Tunnel and Reservoir Plan (TARP) ...” (Direct Testimony of Daniel Injerd, p. 3)

IEPA provided the following position in its Post Hearing Brief connecting its support of Petitioner’s Petition for Modification to the changed date for the completion of TARP:

After reviewing all the material and testimony provided in this matter, Illinois EPA supports the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Petition for Modification of its Allocation Permit. Illinois EPA acknowledges that existing combined sewer overflows (CSOs) are a main contributor to depressed dissolved oxygen levels in the CAWS, along with stagnation during low flow periods. Illinois EPA also acknowledges the Long Term Control Plan to address these CSOs is the completion of TARP. (Illinois EPA, Hearing Exhibit 1)

... It appears that the rationale for reducing the initially permitted level of diversion was intended to coincide with the completion date of TARP that was projected at the time of

permit issuance. (Petitioner's Hearing Exhibit 1)

The allocation given to MWRDGC in its 2000 permit contemplated maintaining that level of diversion until TARP was completed and the frequency and volume of CSOs was greatly reduced. It appears that the 2000 permit, containing a provision to reduce the volume of diversion for maintaining water quality from 270 cfs to 101 cfs in 2014, was issued based on a presumption that TARP would be completed by 2014. (Illinois EPA Hearing Exhibit 1)

As per the consent decree, the most recent TARP completion date is 2029 and that the McCook Phase I reservoir will be completed in 2017. ... (IEPA Brief, pp. 1-2)

Intervenors provided the following position in its Post Hearing Briefs connecting its agreement that Petitioner's Petition for Modification is justified for a limited basis to the changed date for the completion of TARP:

Intervenors agree with MWRD, IEPA and IDNR that some extension of the allowance of a 270 cfs discretionary diversion is justified. The allocation, however, must be substantially reduced. Even accepting the constricted view of the scope of this proceeding adopted by the Order of May 14, 2015 and subsequent rulings, the evidence shows that:

- MWRD's petition to increase its currently allowed discretionary diversion for the years from 2016 to 2029 from 101 cfs to 270 cfs should only be granted through 2017 - the year of the expected completion of Phase I of the McCook Reservoir,
- As recommended by the IDNR staff, the allocation for discretionary diversion should be cut to 220 cfs for the years 2018 through 2021[.] (Intervenors' Brief, pp. 2-3)

Additionally:

It is true that intervenors have not sought in this proceeding to deny that MWRD will not complete TARP until at least 2029, that the water quality standards changed to some extent as a result of recent decisions of the Illinois Pollution Control Board, and that some of the 1970s modeling on which the LMO-00-01 decision was based has proven to be inaccurate. The relevant question, however, is not simply whether those facts are true, but whether they justify the petition that MWRD has filed. It is Intervenors' position that they do justify a portion of the petition, but do not show the need for all of what MWRD has requested. (Intervenors' Response Brief, p. 6)² (emphasis added)

ii. Change in Illinois DO regulatory standards.

Petitioner provided the following argument in support for the change in Illinois DO regulatory standards to qualify as "notification received by the Department from the Illinois

² To the extent Intervenors argue that this issue should result in differing diversion amounts or permit conditions,

Environmental Protection Agency stating ... that standards affecting the water quality of the Chicago Area Waterway System have been changed” to justify Petitioner’s requested modification to its current allocation permit:

On February 6, 2014, the Pollution Control Board published more stringent aquatic-life use designations for the CAWS, and on July 1, 2015, the Board adopted corresponding water quality standards in Subdocket D of its rulemaking. Not only has the DNR received notice of this imminent change in water quality standards, but it has also publicly pledged its support for those new standards. IPCB Case No. R08-09 – Comments of the DNR on the Proposed UAA for the CAWS (Jan. 8, 2009).

It is, therefore, indisputable that there was “[n]otification received by the [DNR] from the [IEPA] stating that ...standards affecting the water quality of the Sanitary and Ship Canal have been changed.” Id. at 3730.310(b)(4). Accordingly, this recent change in water quality standards, in and of itself, is an adequate basis for modifying the District’s allocation permit. (Petitioner’s Brief In Support, pp. 21-22)

Department Staff provided the following testimony on this issue: “The Department has long recognized that there are uncertainties that can impact the District’s allocation for discretionary diversion, primarily ... changes in water quality standards for the Chicago Sanitary and Ship Canal system.” (Direct Testimony of Daniel Injerd, p. 3)

IEPA’s post hearing brief provided no position specific to this basis for Petitioner’s requested modification to its current allocation permit.

Interveners’ post hearing brief provided the following position on this issue:

It is true that interveners have not sought in this proceeding to deny that MWRD will not complete TARP until at least 2029, that the water quality standards changed to some extent as a result of recent decisions of the Illinois Pollution Control Board, and that some of the 1970s modeling on which the LMO-00-01 decision was based has proven to be inaccurate. The relevant question, however, is not simply whether those facts are true, but whether they justify the petition that MWRD has filed. It is Interveners’ position that they do justify a portion of the petition, but do not show the need for all of what MWRD has requested. (Interveners’ Response Brief, p. 6)³ (emphasis added)

iii. Modeling forecasts indicating significant exceedances of water quality standards in

these arguments are addressed in Section IV.f. herein.

³ To the extent Interveners argue that this issue should result in differing diversion amounts or permit conditions, these arguments are addressed in Section IV.f. herein.

the CAWS.

Petitioner provided the following argument in support for its modeling forecasts indicating that the upcoming reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS to provide a basis to justify Petitioner's requested modification to its current allocation permit:

... Dr. Melching's modeling demonstrates that a reduction from 270 cfs to 101 cfs, prior to the completion of Stage 1 of the McCook Reservoir, would result in a nearly 30% drop in system-wide compliance with IEPA's proposed new DO standards for the CAWS. Pre-Filed Test. Dr. C. Melching, Attachment 1, 134 (Aug. 4, 2015). Specifically, system-wide compliance is predicted to plummet from 95.8% at 270 cfs to 66.8% at 101 cfs. Id. Even after Stage 1 of the McCook Reservoir comes on line in 2017, the model predicted that the CAWS would not meet water quality standards nearly 20% of the time if discretionary diversion was limited to 101 cfs. Id. Accordingly, no party in this case has offered any evidence in support of the 101 cfs diversion limit. (Petitioner's Brief In Support, p. 24-25)

Department Staff provided the following testimony on this issue: "The Department notes that both the District and the Illinois Environmental Protection Agency agree that Dissolved Oxygen (D.O.) is the best indicator of water quality to evaluate the need for and quantity of discretionary diversion water. Further, it is the Department's understanding that the IEPA recommends that at a minimum the compliance rates in the future should continue at the same rate that the waterways are complying now for dissolved oxygen. The Department concurs with this recommendation." (Direct Testimony of Daniel Injerd, p. 3)

IEPA provided the following position in its Post Hearing Brief, supporting Petitioner's Petition for Modification in order to maintain Petitioner's current dissolved oxygen compliance rate of 95%:

Illinois EPA has reviewed the modeling conducted by Dr. Melching on behalf of MWRDGC and his testimony provided [at] the hearing and the Agency believes that it provides a credible projection of the positive impact of diversion water in maintaining adequate dissolved oxygen levels in portions of the CAWS. Based on the modeling, it appears that the initially permitted level of 270 cfs will maintain the highest frequency of compliance with dissolved oxygen standards before the completion of Stage 1 of the McCook Reservoir, compared to 101 cfs.

...

According to Dr. Melching's modeling, Phase I of the McCook reservoir will collect

between 83.6 % to 95.7 % of the CSO flows in the McCook watershed, leaving a smaller amount of CSO flows, to be collected in Phase II of the McCook reservoir. The smaller amount of CSO flow collected from Phase II of the McCook reservoir will result in a smaller dissolved oxygen benefit compared to Phase I of the McCook reservoir. (Id.)

The Agency supports the concept of maintaining the current dissolved oxygen compliance rate of 95%. According to the Melching report, under the current condition, a discretionary diversion of 270 was found to yield a system-wide performance of 95.8%. The case of the Thornton and McCook State 1 reservoirs operational, a discretionary diversion of 206 cfs was found to yield a system-wide performance of 95.1%. Because of uncertainties as described on pages 13-14 of Dr. Melching's testimony and since the statistics presented are based on only one year (2003), the Agency agrees with IDNR's decision to have a discretionary diversion allocation of 220 cfs. (IEPA Brief, pp. 2-3)

Intervenors' post hearing briefs provided no position specific to this basis for Petitioner's requested modification to its current allocation permit.⁴

iv. Previous modeling significantly underestimated the amount of discretionary diversion needed to meet water quality standards.

Petitioner provided the following argument in support for its contention that previous modeling significantly underestimated the amount of discretionary diversion needed to meet water quality standards to provide a basis to justify Petitioner's requested modification to its current allocation permit:

Another change in circumstance that supports this petition is the discovery (thanks to new data and technology) that the 1970s modeling which formed the basis for the 101 cfs discretionary diversion limit made erroneous assumptions regarding sediment oxygen demand and nitrogenous oxygen demand in the CAWS. See Attachment A at p. 140-151. As more fully explained in the attached report, these erroneous assumptions caused the model to significantly underestimate the amount of discretionary diversion needed to meet water quality standards. Id. (Petitioner's Brief In Support, p. 26)

⁴ The Department notes that Intervenors pre-hearing Position Statement took the position that the modeling forecasts indicating that the upcoming reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS was not a change of circumstances justifying Petitioner's Petition for Modification. However, Intervenors' post hearing briefs did not raise this issue as part of Intervenors' final arguments. To the extent Intervenors argue that this issue should result in differing diversion amounts or permit conditions, these arguments are addressed in Section IV f. herein.

Department Staff provided the following testimony on this issue: “The District (District petition, page 12) states that the 101 cfs allocation was based on outdated modeling. The Department concurs with this statement, and further notes that the prior allocation of 270 cfs was based on negotiations during the Great Lakes Mediation process back in the mid 1990’s.” (Direct Testimony of Daniel Injerd, p. 4)

IEPA’s post hearing brief provided no position specific to this basis for Petitioner’s requested modification to its current allocation permit.

Interveners’ post hearing brief provided the following position on this issue:

It is true that interveners have not sought in this proceeding to deny that MWRD will not complete TARP until at least 2029, that the water quality standards changed to some extent as a result of recent decisions of the Illinois Pollution Control Board, and that some of the 1970s modeling on which the LMO-00-01 decision was based has proven to be inaccurate. The relevant question, however, is not simply whether those facts are true, but whether they justify the petition that MWRD has filed. It is Interveners’ position that they do justify a portion of the petition, but do not show the need for all of what MWRD has requested. (Interveners’ Response Brief, p. 6)⁵ (emphasis added)

v. Determination

Petitioner provides in its Petition four bases for modification: (1) delay in the completion of TARP, (2) change in the Illinois DO regulatory standards, (3) new analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS, and (4) discovery that previous modeling significantly underestimated the amount of direct diversion needed to meet water quality. Per the discussion of the parties’ positions above, no parties raised objections to Petitioner’s bases for modification and no parties raised objections to at least some modification of Petitioner’s current allocation permit (rather the parties have different positions on the appropriate modification amounts and terms (See Section IV.f.)).

As to Petitioner’s first basis for modification, all parties agree that the delay of the completion of TARP justifies a modification of Petitioner’s current water allocation permit.

⁵ To the extent Interveners argue that this issue should result in differing yearly diversion amounts or permit conditions, these arguments are addressed in Section IV.f. herein.

Based on the record of this proceeding, Petitioner's current allocation permit provides direct discretionary diversion in the amount of 270 cfs through 2014 Water Year, reducing to 101 cfs for 2015 Water Year.⁶ The Department agrees that Petitioner's current allocation permit was predicated on the original completion date for Tarp that has now been changed from 2015 to 2017 for McCook Reservoir Stage 1 and 2029 for McCook Reservoir Stage 2. The rationale for reducing Petitioner's diversion amount upon the expected completion date for TARP was that TARP is expected to promote water quality by, as IEPA noted, reducing the amount of combined sewer overflows ("CSO") into the CAWS which would thereby reduce the amount of direct diversion of Lake Michigan water into the CAWS necessary to dilute the effects of CSOs. As such, the delay of the completion of TARP will fail to provide TARP's expected water quality benefits and accompanying reduction in Petitioner's direct diversion needs. Therefore, the Department finds that the delay of the completion date of TARP is a substantial change in circumstances resulting in a change in water needs of Petitioner.⁷

As to Petitioner's second basis for modification, Department Staff and Interveners agree with Petitioner that changes in water quality standards for the Chicago Sanitary and Ship Canal system are legitimate uncertainties that can impact the Petitioner's allocation for discretionary direct diversion. IEPA's post hearing brief provides no position specific to this basis for Petitioner's requested modification to its current allocation permit. Based on the record of this proceeding, it is undisputed that, in 2014, the Pollution Control Board published more stringent aquatic-life use designations for the CAWS; that, in 2015, the Pollution Control Board adopted corresponding water quality standards in Subdocket D of its rulemaking; and that the Department has received notice of this imminent change in water quality standards. Therefore, the Department finds that the Department has received notification from the Illinois Environmental

⁶ For purposes of litigating this proceeding, Petitioner's current allocation permit was modified without objection via Interim Order to continue the 270 cfs diversion amount through Water Year 2015. Petitioner's diversion amount reduces to 101 cfs in Water Year 2016 and thereafter pursuant to Petitioner's current allocation permit.

⁷ The Department notes that this finding is consistent with the rationale of the Department's Decision ordering Petitioner's current allocation permit:

... The allocation for discretionary dilution will be increased from 101 cfs to 270 cfs until 2015 when the Tunnel and Reservoir Plan (TARP) is expected to be completed. This allocation will then be reduced back to 101 cfs. ... If circumstances such as the completion of TARP or problems with significant exceedances of water quality standards occur, a proceeding for modification may need to occur. (Department Decision LMO-00-01, p. 1)

Protection Agency stating that standards affecting the water quality of the Chicago Area Waterway System have been changed.

As to Petitioner's third basis for modification, Department Staff and IEPA both agree with Petitioner's analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS. Interveners' post hearing brief provided no position specific to this basis for Petitioner's requested modification to its current allocation permit. Based on the record of this proceeding, the Department accepts Dr. Melching's modeling which concludes that a reduction from 270 cfs to 101 cfs would result in approximately a 30% reduction in system-wide compliance with IEPA's proposed new DO standards for the CAWS prior to the completion of Stage 1 of the McCook Reservoir and approximately a 20% reduction in system-wide compliance with IEPA's proposed new DO standards for the CAWS after the completion of Stage 1 of the McCook Reservoir. As such, Petitioner's analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS thereby impacting Petitioner's direct diversion needs. Therefore, the Department finds that Petitioner's analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS is a substantial change in circumstances resulting in a change in water needs of Petitioner.⁸

As to Petitioner's fourth basis for modification, Department Staff and Interveners concur with Petitioner's contention that its previous modelling is outdated. IEPA's post hearing brief provides no position specific to this basis for Petitioner's requested modification to its current allocation permit. Based on the record of this proceeding, Petitioner's previous modeling which formed the basis for the 101 cfs discretionary diversion limit made erroneous assumptions regarding sediment oxygen demand and nitrogenous oxygen demand in the CAWS. As such,

(emphasis added)

⁸ The Department notes that this finding is consistent with the rationale of the Department's Decision ordering Petitioner's current allocation permit:

... The allocation for discretionary dilution will be increased from 101 cfs to 270 cfs until 2015 when the Tunnel and Reservoir Plan (TARP) is expected to be completed. This allocation will then be reduced back to 101 cfs. ... If circumstances such as the completion of TARP or problems with significant exceedances of water quality standards occur, a proceeding for modification may need to occur. (LMO-00-01 Decision, p. 1)

(emphasis added)

Petitioner's previous modeling significantly underestimated the amount of discretionary diversion needed to meet water quality standards thereby impacting Petitioner's direct diversion needs. Therefore, the Department finds that the realization that Petitioner's previous modeling significantly underestimated the amount of discretionary diversion needed to meet water quality standards is a substantial change in circumstances resulting in a change in water needs of Petitioner.

In sum, the Department finds that the delay of the completion date of TARP, Petitioner's analysis finding that the upcoming direct diversion reduction to 101 cfs will result in significant exceedances of water quality standards in the CAWS and the realization that Petitioner's previous modeling significantly underestimated the amount of discretionary diversion needed to meet water quality standards are all substantial changes in circumstances resulting in a change in water needs of Petitioner. Further, the Department finds that the Department has received notification from the Illinois Environmental Protection Agency stating that standards affecting the water quality of the Chicago Area Waterway System have been changed. Based on the foregoing, the Department determines that Petitioner meets the Rule Section 3730.310(b) requirement for modification of Petitioner's current allocation permit by proving both: "(1) Evidence of a substantial change in circumstances that results in a change in water needs of the entity;" and "(4) Notification received by the Department from the Illinois Environmental Protection Agency stating ... that standards affecting the water quality of the Chicago Area Waterway System have been changed" as bases sufficient to justify modification of its current allocation permit.

- f. Pursuant to Rule Section 3730.310(b), what are the appropriate modified diversion amounts and permit terms and conditions, if any, to Petitioner's current Lake Michigan Water Allocation Permit.

Rule Section 3730.310(b) provides the "bases for modification of an allocation permit." After such a basis for modification has been proved, the Department must determine the appropriate new yearly diversion amounts and appropriate permit terms and conditions, if any, that the allocation permit should be modified to include. In this proceeding, parties have contested the appropriate amounts for Petitioner's modified yearly diversions and have requested

permit conditions requiring conservation measures and information reporting. Further, Petitioner's requested permit term regarding future petitions for modification and the additional terms of Petitioner's current allocation permit such as the diversion component for Navigation Makeup and the allowance for a "banking" approach to Petitioner's water use are also addressed. Petitioner's modified allocation permit diversion amounts, permit conditions, if any, and additional terms to Petitioner's current allocation permit are considered as follows:

i. Modified Yearly Diversion Amounts

To determine the appropriate new yearly diversion amounts for Petitioner, the Department considers the following issues. First, the Department considers the proper temporal scope of this proceeding based on Petitioner's Petition and Interveners' proposed contested issues. Second, the Department considers the appropriateness of Petitioner's use of DO regulatory compliance as the standard for assessing water quality in the CAWS for purposes of determining Petitioner's modified yearly diversion amounts in this proceeding. Third, the Department identifies the parties' positions on Petitioner's new yearly diversion amounts. Finally, the Department determines the appropriate new yearly diversion amounts for Petitioner.

A. Temporal Scope of Proceeding

The first issue to be addressed in determining Petitioner's modified yearly diversion amounts is the appropriate time period at issue in this proceeding. The issue of the appropriate time period in this proceeding was ruled upon by the Hearing Officer in the Contested Issues Prehearing Order and the subsequent discovery and evidentiary rulings consistent with the Contested Issues Prehearing Order. The issue was raised in the third issue of Interveners' Statement of Contested Issues – whether it has been demonstrated that the completion of TARP will or will not substantially eliminate the need for Petitioner's discretionary diversion ("Effect of Completion of Tarp contested issue"). Interveners cited Act Section 615 ILCS 50/5, but no Rule section, as the substantive legal basis for Interveners' Effect of Completion of TARP contested issue. The Hearing Officer ruled that Interveners' Effect of Completion of TARP contested issue was not appropriately available to be contested in this proceeding based on the

scope of Petitioner's Petition, which is the basis for the scope of this proceeding. Specifically, Petitioner's Petition requests its permit to be modified to maintain discretionary diversion at 270 cfs until TARP is completed, but does not request a change to Petitioner's permit allocation amount after TARP is completed. Therefore, the Effect of the Completion of TARP is not at issue in this proceeding. Interveners have properly requested that this issue be decided by the Department through its Director in this Final Administrative Decision.

The Department affirms the Hearing Officer's Contested Issues Prehearing Order ruling that Interveners' Effect of Completion of TARP contested issue is not appropriately available to be contested in this proceeding. The determination of this issue is based on the proper scope of this proceeding. Petitioner's Petition request for modification is only "to maintain discretionary diversion at 270 cfs until TARP is completed in 2029." (Petition, p. 15) Petitioner's Petition does not request a change in its yearly discretionary diversion for a time period after the completion of TARP. Therefore, the Department concludes, based on the reasoning set forth in the Contested Issues Prehearing Order and on the determination of the proper scope of this proceeding based on Petitioner's Petition, that Interveners' Effect of Completion of TARP contested issue is beyond the scope of this proceeding.

The Department further concludes that the Hearing Officer, in requiring Interveners' Statement of Contested Issues citing applicable provisions of the Act or the Rule and ruling upon same, appropriately exercised his authority as Hearing Officer with respect to conducting a fair and impartial hearing, taking all necessary action to avoid delay, to maintain order, and to ensure development of a clear and complete record and with respect to conducting prehearing conferences for the purposes of formulating issues and the simplification of issues of fact and law pursuant to Rule Sections 3730.210, 3730.207(a) and 3730.207(a)(1).

The Department additionally affirms the Hearing Officer's Contested Issues Prehearing Order discovery ruling on Interveners' Motion to Compel regarding Interveners' Effect of Completion of TARP contested issue. The Department concludes that the Hearing Officer ruled upon Interveners' Motion to Compel appropriately and consistently with the ruling on Interveners' contested issues in denying Interveners' requested discovery. The Department further concludes that the Hearing Officer, in ruling upon Interveners' Motion to Compel,

appropriately exercised his discretion as Hearing Officer to order and rule upon written discovery pursuant to Sections 3730.207(a)(1) through (6), 3730.208(a)(1) and (2) and 3730.210(f).

Intervenors raise their objections to the Hearing Officer's rulings on the Intervenors' Effect of Completion of TARP contested issue in their post hearing brief. Intervenors' first argue that "[t]he Hearing Officer erred in ruling that MWRD may use the supposed benefits of the completion of TARP to support its petition and justify its temporal scope while prohibiting Intervenors from determining the extent of the need for diversions after the completion of TARP." (Intervenors' Brief, p. 16) Intervenors' argument is that the first basis for Petitioner's Petition is the "supposed benefits of the completion of TARP" and, therefore, Intervenors' Effect of Completion of TARP contested issue must be relevant as it goes to a basic issue in the Petition. First, Intervenors' argument misstates Petitioner's Petition. The first basis for Petitioner's Petition is not the benefits of the completion of TARP (after 2029), but rather the lack of benefits due to the delay of TARP (before 2029). (Petition, pp. 4-6) Second, the accurate statement of the first basis for Petitioner's Petition results in a pre-TARP before 2029 temporal scope of Petitioner's Petition, not post TARP after 2029. This pre-TARP before 2029 temporal scope of Petitioner's Petition refutes the argument that Intervenors' Effect of Completion of TARP contested issue goes to a basic issue in the Petition or this proceeding. Therefore, Intervenors' first argument provides no basis for overturning the Hearing Officer's Contested Issues Prehearing Order ruling or subsequent rulings on Intervenors' Effect of Completion of TARP contested issue.

Intervenors' second argument in support of Intervenors' Effect of Completion of TARP contested issue is that "[t]he Petition is not, in fact, limited to 2029 because of the legal effect of 17 Ill. Adm. Code 3730.308(b)." (Intervenors' Brief, p. 17) Intervenors' argument is that Petitioner's Petition is not, in fact, temporally limited to 2029, because Section 3730.308(b) provides that Lake Michigan allocation permits are perpetual and, so, effective past 2029; thereby making Intervenors' Effect of Completion of TARP contested issue relevant to this proceeding. While Intervenors are correct that Section 3730.308(b) provides that Lake Michigan allocation permits are effectively perpetual, Intervenors are incorrect that Section 3730.308(b) results in petitions for permit modification being perpetual. Petitions for modification set forth the scope of

petition modification proceedings pursuant to the specific modifications requested. Petition modification requests can be for permanent modifications or temporary modifications. Petitioner's Petition requests modification of Petitioner's allocation permit only until TARP is completed in 2029. (Petition, p. 15) Petitioner's Petition has not requested that its allocation permit be modified for the post TARP after 2029 time period. This Decision does not modify Petitioner's allocation permit for the post TARP after 2029 time period. Therefore, the temporal scope of Petitioner's Petition is not perpetual pursuant to Section 3730.308(b) and Interveners' Effect of Completion of TARP contested issue is not relevant to this proceeding on that basis. Interveners' second argument provides no basis for overturning the Hearing Officer's Contested Issues Prehearing Order ruling or subsequent rulings on Interveners' Effect of Completion of TARP contested issue.

Interveners' third argument in support of Interveners' Effect of Completion of TARP contested issue is that "[t]he evidence is clear that TARP will not eliminate the need for discretionary diversions and that conservation practices that would reduce the need for diversions would serve to conserve Lake Michigan water." (Interveners' Brief, p. 18) Interveners' argument is that, irrespective of the Contested Issues Prehearing Order ruling against Interveners' Effect of Completion of TARP contested issue, sufficient evidence is still included in the record showing that Petitioner will need discretionary diversion after TARP completion and, therefore, conservation practices must be considered in this proceeding. First, absent a legal basis for ruling to the contrary, the scope of this proceeding is set by Petitioner's Petition. The scope of this proceeding does not change due to the fact that information or evidence relating to matters outside the scope of this proceeding might also be included in the record. Interveners provide no legal basis to expand the scope of this proceeding. Second, as previously addressed, the temporal scope of this proceeding is pre-completion of TARP. Information or evidence relating to post completion of TARP continues to be outside the scope of this proceeding and, therefore, not relevant. Interveners' third argument provides no basis for overturning the Hearing Officer's Contested Issues Prehearing Order ruling or subsequent rulings on Interveners' Effect of Completion of TARP contested issue.

Based on the foregoing, the Department concludes that Interveners' Effect of Completion

of TARP contested issue is not appropriately available to be contested by Interveners in this proceeding

B. Use of Dissolved Oxygen as Standard for Assessing CAWS Water Quality

As discussed above, the bases for the parties' positions on Petitioner's modified yearly diversion amounts focus centrally on Petitioner's ability to address water quality in the CAWS, as Petitioner's water use is mainly for the purpose of improving CAWS water quality. Throughout this proceeding and specifically in Dr. Melching's modeling, Petitioner has used compliance with DO regulatory standards as the measure for assessing water quality in the CAWS for purposes of this proceeding.

IEPA has reviewed Petitioner's evidence, specifically including Dr. Melching's modeling based on expected compliance with DO regulatory standards, and did not object to this approach to assessing water quality in the CAWS for purposes of this proceeding. (See, Direct Testimony of Scott Twait, pp. 1-2; IEPA Brief, pp. 1-3) IEPA's position regarding DO compliance for purposes of this proceeding is for Petitioner to maintain its current DO compliance rate of 95%. (IEPA Brief, p. 3)

Department staff provided the following position regarding the use of compliance with DO regulatory standards as the measure for assessing water quality in the CAWS for purposes of this proceeding:

The Department notes that both the District and the Illinois Environmental Protection Agency agree that Dissolved Oxygen (D.O.) is the best indicator of water quality to evaluate the need for and quantity of discretionary diversion water. Further, it is the Department's understanding that the IEPA recommends that at a minimum the compliance rates in the future should continue at the same rate that the waterways are complying now for dissolved oxygen. The Department concurs with this recommendation. (Direct Testimony of Daniel Injerd, pp. 4-5)

Interveners, however, disagree with the use of compliance with DO regulatory standards as the measure for assessing water quality in the CAWS for purposes of this proceeding:

... 95% compliance with the dissolved oxygen standards is [not] appropriate or even tolerable. The dissolved oxygen standards applicable to the various reaches of the CAWS state the values for dissolved oxygen on average and "at any time." As noted above, 35 Ill. Adm. Code 302.405(c)(1), applicable to some of the CAWS, states that dissolved oxygen

shall not be less “during the period March through July, [than] 5.0 mg/L *at any time.*” Nothing in the standard suggests that 95% compliance is good enough.

Moreover, contrary to MWRD and IDNR staff, Interveners do not believe that it is reasonable to focus solely on compliance with the dissolved oxygen standards. There is a potential for chloride violations in the CAWS (Oct. 7, Twait Tr. 288). More critically, portions of the CAWS have been repeatedly found to violate the narrative “unnatural sludge” standard, 35 Ill. Adm. Code 302.403, applicable to the CAWS, which states that “waters subject to this subpart shall be free from unnatural sludge or bottom deposits, floating debris, visible oil, odor, unnatural plant or algal growth, or unnatural color or turbidity.” <http://www.epa.state.il.us/water/tmdl/303-appendix/2014/appendix-b2.pdf> (Little Calumet HA-05 p.48; North Shore Channel, HCCA-02 p.62) MWRD and state agencies are not free to pick and choose which water quality standards must be met.

Further, the Supreme Court standard that discretionary diversions may be used to keep the CAWS in “reasonably satisfactory sanitary condition” plainly addresses the types of conditions forbidden by the fecal coliform standard of 35 Ill. Adm. Code 302.209 standard that is applicable to much of the CAWS, 35 Ill. Adm. Code 302.401(b), 35 Ill. Adm. Code 303.220, and the unnatural sludge standard of 35 Ill. Adm. Code 302.403. IEPA has specifically recognized that avoiding violations of 35 Ill. Adm. Code 302.403 is part of keeping the CAWS in a “reasonably sanitary condition.” Illinois EPA’s Responses to Questions Submitted by the Interveners ¶12. (Interveners’ Brief, pp. 11-12)

Regarding Interveners argument, the above-stated record of this proceeding indicates that Petitioner’s Environmental Engineering Consultant, Dr. Melching, supports using compliance with DO regulatory standards as an appropriate measure for assessing water quality in the CAWS for purposes of this proceeding. There were no objections raised in this proceeding to Dr. Melching’s qualifications or ability to render an opinion on this issue. Given Dr. Melching’s experience and expertise, Dr. Melching’s position on this issue is given significant weight. Department Staff witness Daniel Injerd also supports using compliance with DO regulatory standards, specifically at a 95% compliance rate, as an appropriate measure for assessing water quality in the CAWS for purposes of this proceeding. There were no objections raised in this proceeding to Department Staff’s qualifications or ability to render an opinion on this issue. Given Department Staff’s experience and expertise, Department Staff’s position on this issue is given significant weight. Additionally, IEPA witness Scott Twait supports using compliance with DO regulatory standards, specifically at a 95% compliance rate, as an appropriate measure for

assessing water quality in the CAWS for purposes of this proceeding. There were no objections raised in this proceeding to IEPA's qualifications or ability to render an opinion on this issue. Given IEPA's experience, expertise and responsibility for water quality matters for the State of Illinois, IEPA's position on this issue is given great weight.

Alternatively, while Interveners' made points during cross examination and in their Brief, the record of this proceeding provides no witness testimony providing the substance of an alternative position to the position of the other parties and no information on what differences, if any, would result from the use of such alternative position in assessing water quality in the CAWS for purposes of this proceeding.

Based on the foregoing, the Department finds that Petitioner's use of compliance with DO regulatory standards is an appropriate measure for assessing water quality in the CAWS for purposes of this proceeding. Further, the Department finds that Petitioner's compliance with DO regulatory standards at a 95% compliance rate is an appropriate standard for achieving water quality in the CAWS for purposes of this proceeding.

C. Party Positions on Petitioner's Modified Yearly Diversion Amounts

Petitioner's position regarding its proposed modified yearly diversion amounts is essentially based on the testimony of Petitioner's Environmental Engineering Consultant, Dr. Charles Melching regarding projected water quality in the CAWS:

Dr. Melching's modeling demonstrates that a reduction from 270 cfs to 101 cfs, prior to the completion of Stage 1 of the McCook Reservoir, would result in a nearly 30% drop in system-wide compliance with IEPA's proposed new DO standards for the CAWS. Pre-Filed Test. Dr. C. Melching, Attachment 1, 134 (Aug. 4, 2015). Specifically, system-wide compliance is predicted to plummet from 95.8% at 270 cfs to 66.8% at 101 cfs. Id. Even after Stage 1 of the McCook Reservoir comes on line in 2017, the model predicted that the CAWS would not meet water quality standards nearly 20% of the time if discretionary diversion was limited to 101 cfs. Id. Accordingly, no party in this case has offered any evidence in support of the 101 cfs diversion limit. (Petitioner's Brief In Support, p. 24-26)

Petitioner's position regarding its proposed modified yearly diversion amounts is as follows:

... the District's modeling presented the State with an estimate of the amount of diversion necessary to achieve the State's desired DO levels. As previously discussed, a reduction to 101 cfs would not satisfy the State's desired level of water quality in the CAWS because the waterway would only meet the State's proposed DO levels 66.8% of the time with that allocation. Pre-Filed Test. Dr. C. Melching, Attachment 1, 140-151 (Aug. 4, 2015) 140-151. Indeed, even after Stage 1 of the McCook Reservoir comes on line in 2017, 101 cfs would only deliver 81.5% compliance with those standards. Id.

A better alternative—and the one recommended by the District in its petition—is to maintain discretionary diversion at 270 cfs at least until Stage 1 of McCook is completed in 2017. Doing so allows the State to meet its proposed DO standards in the CAWS between 78.2% and 95.8% under current conditions. Pre-Filed Test. Dr. C.S. Melching, 10 (Aug. 4, 2015). Both DNR and IEPA have agreed to follow this course until the completion of McCook Stage 1. Pre-Filed Test. D. Injerd, 4-5 (Aug. 11, 2015; Hrg. Tr. 287:4-10 (Oct. 7, 2015)).

For the time period after completion of McCook Stage 1 and through Completion of Stage 2, DNR recommended that diversion be reduced to 220 cfs based on attainment of approximately 95% compliance per Dr. Melching's model. Pre-Filed Test. D. Injerd, 5 (Aug. 11, 2015). IEPA concurred with this recommendation. Hrg. Tr. 287:4-10 (Oct. 7, 2015).

There is nothing in the record that suggests the diversion limit should be any less than what DNR has recommended. Accordingly, the Hearing Officer should modify the District's permit to increase the discretionary diversion limit to the levels recommended by DNR, at a minimum. (Petitioner's Brief In Support, pp. 29-31)⁹

Department Staff's position regarding Petitioner's modified yearly diversion amounts is as follows:

...The Department also notes that neither the District nor the IEPA has provided any documentation on what the discretionary diversion allocation should be once TARP is completed. With the current estimated completion date sometime in 2029, the Department recommends that the District's allocation for discretionary diversion only cover the time period up until the completion of TARP. Since the 2030 Water Year starts on October 1, 2029, the Department recommends that the District's discretionary diversion allocation extend through the 2030 Accounting Year.

⁹ The Department notes that Petitioner in a number of instances in this proceeding takes the position that "the ultimate responsibility for maintaining the water quality in the CAWS falls on the State." (See Petitioner's Brief In Support, p. 28) The Department notes for the record that the issue of responsibility for maintaining water quality in the CAWS by any entity other than Petitioner is not an issue in this proceeding, has not been litigated in this proceeding and that the Department pursuant to this proceeding makes no finding, conclusion or determination regarding this issue.

Based on the information contained in the District's petition and Attachment 1A, the District's Pre-Filed Written Testimony, and the IEPA's pre-Filed Written Testimony, the Department recommends that the allocation for discretionary diversion be restored to 270 cfs until Stage 1 of the McCook Reservoir becomes operational. This is expected to occur sometime during 2017, so we recommend that the 270 cfs allocation be maintained through the end of the 2017 Water Year, which ends on September 20, 2017.

Dr. Melching's testimony and Attachment 1 state that with the completion of the Thornton Reservoir and Stage 1 of the McCook Reservoir a discretionary diversion of at least 206 cfs would be needed to achieve compliance with the new IPCB absolute minimum DO Standard 95% of the time throughout the CAWS. This statistical level of compliance is the same as current conditions with 270 cfs of discretionary diversion. The Department is aware of the uncertainties as described on pages 13-14 of Dr. Melching's testimony, and also note that the statistics presented are based on only one year (2003), which was described as an approximation of a 10 year "dry year", a rigorous test of the need for discretionary diversion. Subsequent to Stage 1's completion, and based on the facts presented in Dr. Melching's report as well as IEPA concurrence with that report, the Department believes a discretionary diversion allocation of 220 cfs should be adequate to maintain, and perhaps exceed existing compliance with the dissolved oxygen standard in almost all but the most stressful water years. The ability to bank water should also provide the District with additional flexibility.

The Department supports a proposed allocation for discretionary diversion as outlined below:

Year	Discretionary Diversion (cfs)
2015	270
2016	270
2017	270
2018	220
2019	220
2020	220
2021	220
2022	220
2023	220
2024	220
2025	220
2026	220
2027	220
2028	220
2029	220
2030	220

(Direct Testimony of Daniel Injerd, pp. 4-5)

IEPA's position regarding Petitioner's modified yearly diversion amounts is as follows:

The Agency supports the concept of maintaining the current dissolved oxygen compliance rate of 95%. According to the Melching report, under the current condition, a discretionary diversion of 270 was found to yield a system-wide performance of 95.8%. The case of the Thornton and McCook State 1 reservoirs operational, a discretionary diversion of 206 cfs was found to yield a system-wide performance of 95.1%. Because of uncertainties as described on pages 13-14 of Dr. Melching's testimony and since the statistics presented are based on only one year (2003), the Agency agrees with IDNR's decision to have a discretionary diversion allocation of 220 cfs. The Illinois EPA supports the granting of the petition to maintain a 270 cfs diversion until after completion of McCook Phase I and a discretionary diversion of 220 cfs from 2018 through 2030. (IEPA Brief, pp. 2-3)

Intervenors' position regarding Petitioner's modified yearly diversion amounts is as follows:

- MWRD's petition to increase its currently allowed discretionary diversion for the years from 2016 to 2029 from 101 cfs to 270 cfs should only be granted through 2017 - the year of the expected completion of Phase I of the McCook Reservoir,
- As recommended by the IDNR staff, the allocation for discretionary diversion should be cut to 220 cfs for the years 2018 through 2021,
- The facts regarding the modeled effects of the diversions and the MWRD optimization plans are very imperfectly understood at this time, particularly as to the period following the completion of the Phase I of the McCook Reservoir, and
- As originally recommended by IEPA, MWRD should provide further demonstration of need following completion of Phase I of the McCook Reservoir. This requirement for a further demonstration of need in 2020 can be implemented through a permit condition, or, more simply, by reducing the allocation granted at this time for the period after 2020 to 101 cfs or less. (Intervenors' Brief, p. 3)

The foregoing is predicated on Intervenors' position that facts regarding the modeled effects of the diversions ("Modeling Uncertainty") and the MWRD optimization plan ("Optimization Plan Uncertainty") are imperfectly understood at this time, particularly as to the period following the completion of the Phase I of the McCook Reservoir. Intervenors' position is that such Modeling Uncertainty and Optimization Plan Uncertainty should result in the requirement that Petitioner provide further demonstration of water diversion need after 2020, which can be implemented through a permit condition or by reducing the allocation granted after 2020 to 101 cfs or less.

Intervenors provided the following as the basis for their position regarding Modeling Uncertainty:

Evidence developed in the hearing held in this matter has shown that the amount of the discretionary diversion that should be allowed after the 2017 completion of Phase I of the McCook Reservoir is simply not known. The hearing abundantly demonstrated that it would be extremely imprudent to make decisions for the next 14 years based on the current information. In particular, it was determined that the model that MWRD presented as the principal basis for its petition has numerous limitations and has only begun to be calibrated. Further, predictions of what combined sewer overflows will be after the completion of McCook Phase I are based on decade-old models by parties other than MWRD that have never been tested. Still further, MWRD's operation plan is currently a "work in progress" (Oct. 6, Melching Tr. 40), and most key elements of its optimization plan have not been developed.

...

A centerpiece of the support of MWRD's petition is the Duflow model of the Chicago Area Waterway System (CAWS) developed by Dr. Charles Melching (the "Model") of how wet weather flows from combined sewer overflows (CSOs) and low flows during dry periods can be expected to relate to violations of the dissolved oxygen (DO) standards applicable to the CAWS (Petition p. 10). The Model is by Dr. Melching's admission useless as to the Unnatural Sludge standard of 35 Ill. Adm. Code 302.403 and the fecal coliform standards applicable in the CAWS (Oct. 6, Melching Tr. 113, 160). Even as to predicting compliance with the DO standards, however, the model is of limited value, as discussed below. Moreover, it is far from clear whether the Model is too conservative and predicts violations when there are none, thereby suggesting more discretionary diversion than is necessary, or too insensitive and fails to predict violations when they will occur. Review of the record shows that it has frequently missed badly in both directions.

As an initial matter, it must be understood that the dissolved oxygen standards prescribe both minimum levels of dissolved oxygen that must be met over certain average periods, and DO levels below which the water bodies must never fall. For example, 35 Ill. Adm. Code 302.405(c)(1), applicable to some of the CAWS, states that dissolved oxygen shall not be less "during the period March through July, [than] 5.0 mg/L *at any time*." The Model, however, does not even attempt to predict minimum dissolved oxygen levels "at any time," but instead provides only daily average values (Oct. 6, Melching, Tr. 51). Further, while Dr. Melching recognizes that algal growth affects dissolved oxygen levels in at least the Cal Sag Channel and the Little Calumet River by increasing dissolved oxygen levels during the day and decreasing them at night, the Model does not track any of these changes over the course of a day that are caused by such growth. (Intervenors' Ex. 2, p. 98) Because of this, the Model could predict that the DO level was a legal 6 mg/L when it was actually in violation of the standard at 4 mg/L for parts of the 24-hour day (Oct. 6, Melching, Tr. 51).

Problems in the Model are not a theoretical matter. The record demonstrates that in numerous instances the Model has proven to be extraordinarily inaccurate. Given that the Model is supposed to predict compliance with a DO standard that must never be violated and to direct when diversions are necessary to meet those standards, it is unclear that Dr. Melching's calculations of seasonal average values, Petitioner's Ex. 1 App. 1 pp. 66, 69, 73, 75, 79, 81, are of much relevance. However, even using Dr. Melching's measure of success, Dr. Melching admits that the Model is unacceptably inaccurate as to the North Shore Channel and the Little Calumet River. (Petitioner's Ex. 1 App. 1 pp. 79, 81). These are the areas into which the effluent from the O'Brien and Calumet plants is backing up according to Dr. Melching (Intervenors' Ex. 1 pp. 38, 50, 112), where there have been high levels of non-compliance with DO standards during months without discretionary diversion (Intervenors' Ex. 7), and where CSO flows may actually increase after completion of the Thornton and McCook Stage 1 Reservoirs (Intervenors' Ex. 1 p. 158).

Asked to explain some of these extraordinarily large misses, Dr. Melching admitted that the presence of algal growth probably affected DO in a way that could not be captured by the Model. (Oct 6, Melching, Tr. 66, 69; Intervenors' Ex. 1 p. 153). As to other instances in which the Model was off to a huge extent, Dr. Melching claims that there are some unknown forces that are somehow causing the Model to generate highly inaccurate DO predictions for the North Shore Channel and Bubbly Creek (Oct. 6, Melching, Tr. 76-77).

Read in light of the DO standards with which the Model was designed to bring compliance, the Model's level of accuracy in predicting seasonal averages is anything but comforting even as to the locations where Dr. Melching believes the Model is reasonably accurate. Looking at the North Branch of the Chicago River for 2003, Petitioner's Ex. 1. App. 1 Table 2.14, it can be seen that for the summer the Model substantially over-predicted DO at the Fullerton, Division and Kinzie Street monitoring locations (17%, 12%, 27%, respectively). At Fullerton and Kinzie, the Model predicted that the DO would be at a safe 5.0 mg/L while the measured DO show levels below 5.0 mg/L, the level that is the minimum DO standard "at any time" for the months of June and July.

If one looks behind these seasonal average figures, which mask daily problems, and considers what the Model needs to predict to prevent violations and avoid unnecessary diversions, the situation is much more grim. The Model predicted DO in the CSSC in 2008 as under 8 mg/L when DO was measured as over 14 mg/L (Intervenors' Ex. 1, p. 151). The Model predicted that DO levels for 2003 would be below 6.0 mg/L in the North Shore Channel at times when it was over 20 mg/L, thereby missing by a huge 14 mg/L margin. (Petitioner's Ex. 1, App. 79, 81)

But it cannot be said that the Model always errs on the low side. For 2008 for Fullerton and Kinzie on the North Branch, Lockport on the CSSC, and the C&W site on the Little Calumet River the Model failed to predict numerous violations of DO standard, predicting

levels above 6 mg/L where the actual DO level was in violation of the standard and even under 3.0 mg/L. (Intervenors' Ex. 1 pp. 143, 146, 151)

Moreover, predicting what will happen to DO after the completion of McCook Phase I does not only require that the Melching Model be made accurate. Other models must be used to predict the extent of the CSOs that will occur after completion of McCook Phase I, and the accuracy of these models is unconfirmed. (Oct. 6, Melching Tr. 93, 105-08). These models, from the U.S. Army Corps and the University of Illinois, have never been tested concerning discharges following completion of McCook Phase I, of course, because McCook Phase I has not been completed (Oct. 6, Melching, Tr. 93). Thus, the Models may be too conservative, and thus lead to an overly high prediction of the need for discretionary diversion, or too forgiving. We do know these models do not take into effect anything that might have changed CSP flows that has happened in the system since 2003 (Oct. 6, Melching Tr. 100).

(Intervenors' Brief, pp. 4-8) (footnotes omitted)

Further, Intervenors provided the following regarding their Modeling Uncertainty position in their Reply Brief:

MWRD discusses at length the errors in the 1970s models in gauging the potential effects of completion of TARP. MWRD Post Hearing Mem. at 26-27. However, even assuming everything that MWRD says about the earlier models is true, why should IDNR now enter an order that purports to set diversions for at least 14 years based on another untested model? It is no slight to Dr. Melching to suggest that his model may also prove to be imperfect. This is particularly true given that Dr. Melching does not even claim to be done calibrating that model. As Dr. Melching freely admitted in his pre-filed testimony and during the hearing, his model is based on much less data than he wanted to use, and there are a number of tasks that he wants to do to improve the model and operations plan. (Petitioner's Ex. 1 App. 1 p. 16; Oct. 6, Melching Tr. 35) Further, the predictions made of DO levels by the Melching model critically rely on untested models done of CSO flows of the same vintage as the DO models that MWRD now rejects. (Intervenors' Post-Hearing Mem. 8) (Intervenors' Reply Brief, pp. 8-9)

Intervenors provided the following as the basis for their position regarding Optimization Plan Uncertainty:

Much of the pre-filed testimony of Dr. Melching presented by the MWRD concerns efforts to optimize the use of the diversion (Oct. 6, Melching Tr. 4) but at the hearing Dr. Melching made clear that he needed to do much work before the plan would be done (Oct. 6, Melching Tr. 23-7). For example, MWRD is still trying to determine the proper locations for monitors (Oct. 6, Melching Tr. 25; Oct. 7, Wasik, Tr. 204). There are no data at this point as

to whether the optimization plan works (Oct. 6, Melching Tr. 28). Currently, MWRD's optimization plan is based entirely on 2003 data although MWRD intends to also use 2001 and 2008 data (Petitioner's Ex. 1 App. 1 p. 16; Oct. 6, Melching Tr. 35). MWRD will try to implement the plan when it is finished (Oct 7, Wasik Tr. 186). Indeed, at the time of the hearing it was unclear that even the contracts for Dr. Melching to do the work needed to finish the optimization plan had been settled (Oct. 7, Wasik Tr. 204-05). Of course, any time something new is implemented, "you find new problems." (Oct. 7, Staudacher Tr. 254) (Intervenors' Brief, p. 9)

Petitioner's responded to Intervenors' critique on Modeling Uncertainty in its Response Brief as follows:

A. Quality of the DUFLOW model calibration and verification

In their Brief, Intervenors state that "[t]he hearing abundantly demonstrated that MWRD's water quality model and optimization plan are far from complete, and are certainly an inadequate basis for making decisions that will last for over a decade." Intervenors' Post-Hrg. Br., 4. They further state that: "[t]he hearing abundantly demonstrated that it would be extremely imprudent to make decisions for the next 14 years based on current information," and that "[i]n particular, it was determined that the model that MWRD presented as the principal basis for its petition has numerous limitations and has only begun to be calibrated." Id. Nothing could be further from the truth.

Indeed, the model has been completely calibrated since around 2008. Not only is the DUFLOW water-quality model of the CAWS complete and adequate, but it is also one of the most thoroughly calibrated, verified, and peer-reviewed models in the world.

The thoroughness of the model calibration and verification is the product of the huge amount of water-quality data to which the model was calibrated and for which the model was verified. Hourly dissolved oxygen ("DO") data at 24 locations in the CAWS were used to calibrate the model over the entire 2001 Water Year ("WY"). Intervenors' Ex. 2, Melching et al., 2010. The model was then verified with hourly DO data at the same 24 locations in the CAWS over the entire 2003 WY. Intervenors' Ex. 2, Melching et al., 2010.

Subsequently, the model was verified with hourly DO data at 15 locations in the CAWS over the entire 2008 WY. Intervenors' Ex. 1, Melching and Liang, 2013. This amount of data-points in the modeled portion of the CAWS exceeds those used by most other unsteady-flow, water-quality models. It is, therefore, not surprising that Intervenors can point to no evidence to substantiate their criticism of the model's breadth.

Furthermore, it should be noted that the calibration of Dr. Melching's model also considered monthly measurements of carbonaceous biochemical oxygen demand (CBOD), ammonium (NH₄), nitrate (NO₃), and chlorophyll-a at 19 locations in the CAWS and in situ

measurements of sediment oxygen demand at 16 locations in the CAWS. Interveners' Ex. 2, Melching et al., 2010. Additionally, the verification considered monthly measurements of CBOD, NH₄, NO₃, and chlorophyll-a at the same 19 locations in the CAWS. Interveners' Ex. 2, Melching et al., 2010; Interveners' Ex. 1, Melching and Liang, 2013.

There is simply no evidence in the record to refute that this amount of data meets the industry standard for modeling. In fact, this database is far larger than those used in the calibration and verification of most other comparable models. A list of major water quality models comprised of smaller databases is provided below to illustrate the point:

- Unsteady flow and complex water quality model in a river system done by Hydrocomp (1979) and the Northeastern Illinois Planning Commission (Hey et al., 1980) for the CAWS. See Pre- Filed Test. Dr. C. Melching, Attachment 1, 10 (Aug. 4, 2015).
- 1-D unsteady flow, water-quality model of the Chattahooche River downstream from Atlanta, GA. Jobson (1985).
- Conrads and Smith (1997) application of the Branched Lagrangian Transport Model ("BLTM") (Jobson and Schoellhammer, 1987) to the Cooper and Wando rivers near Charleston, SC.
- Feaster and Conrads (2000) application of the BLTM (Jobson and Schoellhammer, 1987) to the Wateree River in South Carolina.
- Feaster et al. (2003) application of the BLTM (Jobson and Schoellhammer, 1987) to the Catawba River in South Carolina.
- Harremoës et al. (1996) simulation of DO concentrations in the River Harrestrup in western Copenhagen, Denmark.
- Even et al. (2007) development of an unsteady-flow, water quality model to evaluate the effect of combined sewer overflows (CSOs) from Paris on the portion of the Seine River flowing through central Paris, France.

B. Peer-review of the DUFLOW model

Contrary to the assertion of the Interveners, the scientific peer review of the DUFLOW model application to the CAWS has been extensive and continuous throughout the development and application of the model, far predating the use of the model for these proceedings. Indeed, during the first several years of the model development, representatives of numerous government agencies were involved in an ad-hoc advisory committee on the development of the model including: (1) the U.S. Geological Survey, Illinois District, (2) U.S. Environmental Protection Agency, Region 5, (3) U.S. Army Corps of Engineers, Chicago District ("Army Corps"), (4) DNR, and (5) IEPA. Pre-Filed Test. Dr. C. Melching, Attachment 1, 12.

Then, as the various reports on the model development were prepared by Marquette University, these reports—Shrestha and Melching (2003), Alp and Melching (2004, 2006), Neugebauer and Melching (2005), Manache and Melching (2005), and Melching et al. (2010)—were peer-reviewed by staff from each of the District’s Engineering, Monitoring & Research, and Maintenance & Operations departments.

Additionally, because the study of Alp and Melching (2004) involved an evaluation of possible changes in the Navigational Makeup rules for the CAWS, it was a joint project for the District and Army Corps, and, therefore, three Army Corps staff members also reviewed this report. The Army Corps further reviewed the application of the DUFLOW water-quality model to the CAWS as part of the Great Lakes and Mississippi River Interbasin Study (“GLMRIS”), i.e. the report of Melching and Liang (2013). See Interveners’ Ex. 1, Melching and Liang (2013).

Furthermore, six publications in the archival, peer-reviewed literature have been prepared on the development and application of the DUFLOW model to the CAWS (Manache et al., 2007; Alp et al., 2007; Alp and Melching, 2009, 2011; Melching et al., 2013, 2015). Each of these were reviewed by 2 or 3 experts in a blind review and approved for publication by the editors of the various journals. Finally, Dr. Melching’s report on the DUFLOW model was provided to the DNR and IEPA for their review and comment in this proceeding, and the resulting questions indicated no issues with the reliability of the model. Thus, the application of the DUFLOW model to environmental management applications for the CAWS has been thoroughly vetted by numerous technical experts in Illinois and around the world.

C. Reliability of the DUFLOW model

In their Brief, the Interveners further question the reliability of the DUFLOW model stating that, “[e]ven as to predicting compliance with the DO standards...the model is of limited value” because, according to Interveners, “[r]eview of the record shows that it has frequently missed badly in both directions.” Interveners’ Post-Hrg. Br., 5. This declaration demonstrates a fundamental misunderstanding of the state-of-the-art and function of computer modeling.

Indeed, Interveners cannot identify any evidence of a water quality model that can generate results which perfectly reproduce observed data. To the contrary, it is a basic tenet of water-quality modeling that “misses” such as the ones that Interveners’ complain of should be expected due to the complex nature of the problem and system being simulated. Moreover, water-quality literature has recognized this aspect of the “State of the Art/Science” for decades.

For example, Hydrocomp (1979) stated that “accurate, event-by-event reproduction of a water quality sampling program may be too much to expect; it is more realistic to strive for reproduction of constituent levels and trends.” Additionally, Hey et al. (1980) state that “[i]t

is not expected that [this] model, or for that matter any model, will represent every event point by point, in time and space.”

Further, Harremoës et al. (1996) explained that it is almost impossible to match all the measured hourly data if there are a large number of data to fit. Pre-Filed Test. Dr. C. Melching, Attachment 1, 69-70. The citation of Dr. Harremoës is especially significant because his research group at the Technical University of Denmark was awarded the second Stockholm Water Prize (effectively the Nobel Prize for Water) in 1992; thus, indicating that the findings in Harremoës et al. (1996) reflect the “State of the Art/Science” in water resources.

Finally, Even et al. (2007) point out that simulating water quality conditions in water bodies receiving CSOs is highly demanding on the models that must be able to simulate both seasonal trends during dry weather and the additional short-term deficits due to CSOs. Since the DUFLOW model of the CAWS needs to simulate the effects of both dry weather and CSOs and must match the aforementioned massive database, some “misses” are inevitable.

Just because misses do occur in water-quality modeling does not mean the model cannot be used to inform decision making, even when considering shorter data periods at fewer locations. To this point, Hey et al. (1980) explain that “[a]lthough there is some uncertainty associated with any model’s ability to portray reality, models are used because they offer the only practical way of testing water management projects.” Indeed, “virtually every agency that has responsibility for water quality management has used or is using models in arriving at management decisions.”

D. Quality of the Hydrologic and Hydraulic Models of the Combined Sewer System and TARP

In addition to attacking Dr. Melching’s model itself, Interveners also question the quality and usefulness of the other models used by Dr. Melching’s study to simulate the amount and locations of CSOs. Specifically, Interveners state that “[f]urther, predictions of what combined sewer overflows will be after the completion of McCook Phase I are based on decade-old models by parties other than MWRD that have never been tested,” and that “the accuracy of these models is unconfirmed.” Interveners’ Post-Hrg. Br., 4, 8.

Interveners do not offer any scientific evidence to substantiate these claims. To the contrary, the Army Corps and University of Illinois models at issue are consistent with “best current engineering practice and scientific knowledge.”

Indeed, with respect to the Army Corps models, Interveners fail to mention that the HSPF and SCALP models were initially developed in the 1970s for use in the design of TARP and for the Areawide Clean Water Planning activities under Section 208 of the Clean Water Act. Furthermore, in the 1980s, they were adapted for use in the Lake Michigan Diversion

Accounting (“LMDA”) and, in the 1990s, the TNET model was developed as some of the TARP tunnels were completed.

All of these models have been continuously revised and updated as a result of experience and review by the Army Corps, District, and others. Furthermore, the Technical Committee for Review of the LMDA reviews these models every five years as mandated by the U.S. Supreme Court, and this Committee has repeatedly affirmed the reliability of these models.

To be sure, the report of the Fifth Technical Committee (Espey et al., 2004) provides a detailed discussion of the models including their calibration, verification, and accuracy. The summary conclusion on these models from Espey et al. (2004, 2009) is that they are consistent with “best current engineering practice and scientific knowledge” as required by the U.S. Supreme Court for the LMDA.

Similarly, the development of the University of Illinois’ models have resulted in 18 peer-reviewed journal articles in the scientific literature indicating the high quality of these models and their application.

Based on the above, it is not surprising that Interveners fail to identify any science in support of their attack on the models developed by the University of Illinois or the Army Corps. There is simply no evidence in the record that contradicts or invalidates any of the models employed by Dr. Melching in this case.

Accordingly, the State’s reliance on Dr. Melching’s model to develop a recommended allocation of 220 cfs through the completion of TARP is fully supported by the record. The Hearing Officer should, therefore, order DNR to modify the District’s permit to allocate a minimum discretionary diversion of 220 cfs from 2018 through 2030.

(Petitioner’s Response Brief, pp. 7-17)

D. Modified Yearly Diversion Amounts

Based on the foregoing, the Department determines the appropriate new yearly diversion amounts for Petitioner. In determining Petitioner’s modified yearly diversion amounts, the Department separates the time period at issue into three time frames: (1) 2016-217 Pre Tarp McCook Reservoir Stage 1 Completion, (2) 2018-2030 Post Tarp McCook Reservoir Stage 1 Completion Through McCook Reservoir Stage 2 Completion, and (3) 2031-Forward Post TARP Final Completion.

1. 2016-217 Pre Tarp McCook Reservoir Stage 1 Completion

As to the 2016-2017 time period, all parties agree that Petitioner’s yearly diversion

amounts should be modified back to 270 cfs for Water Years 2016 and 2017. Based on the record of this proceeding discussed above, the Department accepts Dr. Melching's modeling which concludes that a reduction from 270 cfs to 101 cfs would result in approximately a 30% reduction in system-wide compliance with IEPA's proposed new DO standards for the CAWS prior to the completion of Stage 1 of the McCook Reservoir. The Department finds, according to the Melching report, that a discretionary diversion of 270 will yield a system-wide performance of 95.8% prior to the completion of Stage 1 of the McCook Reservoir. This diversion amount then is expected to meet the 95% DO compliance rate, which the Department has found to be an appropriate measure and standard for achieving water quality in the CAWS for purposes of this proceeding. Therefore, the Department determines that discretionary diversions of 270 cfs per year are the appropriate modified yearly diversion amounts of Petitioner's allocation permit for Water Years 2016 and 2017.

2. 2018-2030 Post Tarp McCook Reservoir Stage 1 Completion Through McCook Reservoir Stage 2 Completion

As to the 2018-2030 time period, Petitioner and IEPA agree with Department Staff that Petitioner's yearly diversion amounts should be modified to 220 cfs for Water Years 2018 through 2030. Department Staff and IEPA's recommended yearly diversion amounts are based on Dr. Melching's modeling indicating that, after the completion of Stage 1 of the McCook Reservoir, a discretionary diversion of at least 206 cfs will be needed to achieve 95% compliance with IEPA's proposed new DO standards for the CAWS. Department Staff recommended, with IEPA and Petitioner's concurrence, the higher discretionary diversion amount of 220 cfs to ensure water quality compliance in recognition of acknowledged modeling uncertainties as described in Dr. Melching's testimony and of the fact that the statistics presented in the Melching model were based on only one year, which was also a significantly "dry" year.

Intervenors' position is that Petitioner's yearly diversion amounts should also be modified to 220 cfs for Water Years 2018 through 2020. After 2020, however, Intervenors' position is that Petitioner's yearly diversion amount should be reduced to 101 cfs to require Petitioner to make a new showing regarding its yearly discretionary diversion needs. Intervenors' position is based on

their argument that Modeling Uncertainty and Optimization Plan Uncertainty are of such significance, particularly as to the period following the completion of the Phase I of the McCook Reservoir, that Petitioner's discretionary diversion need after Phase I "is simply not known" and, therefore, "it would be extremely imprudent to make decisions for the next 14 years based on the current information."

Regarding Interveners argument, the above-stated record of this proceeding indicates that Petitioner's Environmental Engineering Consultant, Dr. Melching, supports the use of his modeling for assessing water quality in the CAWS for purposes of this proceeding. As such, Dr. Melching is in disagreement with Interveners' position of insufficient information / uncertainty for 2020-2030 modeling. There were no objections raised in this proceeding to Dr. Melching's qualifications or ability to render an opinion on this issue. Given Dr. Melching's experience and expertise, Dr. Melching's position on this issue is given significant weight. Department Staff witness Daniel Injerd also supports using the Melching model for assessing water quality in the CAWS for purposes of this proceeding. As such, Department Staff is in disagreement with Interveners' position of insufficient information / uncertainty for 2020-2030 modeling. There were no objections raised in this proceeding to Department Staff's qualifications or ability to render an opinion on this issue. Given Department Staff's experience and expertise, Department Staff's position on this issue is given significant weight. Additionally, IEPA witness Scott Twait supports using the Melching model for assessing water quality in the CAWS for purposes of this proceeding. As such, IEPA is in disagreement with Interveners' position of insufficient information / uncertainty for 2020-2030 modeling. There were no objections raised in this proceeding to IEPA's qualifications or ability to render an opinion on this issue. Given IEPA's experience, expertise and responsibility for water quality matters for the State of Illinois, IEPA's position on this issue is given great weight.

Alternatively, Interveners presented no technical witness testimony against using the Melching model for assessing 2020-2030 water quality in the CAWS for purposes of this proceeding. Specifically, Interveners presented no technical witness testimony supporting a position that Interveners' identified insufficient information / uncertainty is of such magnitude to render the Melching modeling for 2020-2030 unacceptable for purposes of this proceeding.

There is no technical witness testimony providing information and analysis on what differences to Petitioner's yearly diversion amounts, if any, would possibly result due to the identified insufficient information / uncertainty in the Melching modeling for 2020-2030. There is also no position or analysis in Interveners' briefs on the Department Staff's proposal, with IEPA and Petitioner's concurrence, to increase Petitioner's discretionary diversion amount for 95% DO compliance per the Melching model of 206 cfs to 220 cfs to ensure water quality compliance in recognition of acknowledged modeling uncertainties.

As to Interveners' points made during cross examination and in their briefs regarding insufficient information / uncertainty, Petitioner's Response Brief identified the documentation in Dr. Melching's testimony supporting the quality, the scientific peer-review status and reliability of Petitioner's DUFLOW water quality model for the CAWS. Petitioner also provided support for the quality of U.S. Army Corps of Engineers and University of Illinois modeling relied upon in the Melching modeling.

Further, regarding modeling insufficient information / uncertainty generally, the Department notes that it has historically relied on modeling similar to the Melching model at issue in assessing Petitioner's future diversion needs for purposes of Department allocation proceedings. The type of insufficient information / uncertainty argued by Interveners is inherent in such modeling and its existence in the Melching modeling is, therefore, not unexpected. It appears that Interveners have unreasonably high expectations for such modeling, as indicated in Interveners' Reply Brief: "It is no slight to Dr. Melching to suggest that his model may also prove to be imperfect." (Interveners' Reply Brief, p. 8) (emphasis added) As a regulating entity, the Department makes regulatory decisions based on the best reliable information available. To require or wait for perfect information would paralyze the Department's regulatory decision making.

Finally, Interveners' request to essentially limit Petitioner's allocation permit to a five year time frame (2016-2020) is not consistent with the Department's Lake Michigan water allocation regulatory program. The Lake Michigan water allocation regulatory program generally regulates the use of Lake Michigan water by public water supply systems and, in the case of Petitioner, by a public wastewater treatment system. Such systems are by definition long term

enterprises involving long term decision making, financing, contracting, projects and services. In recognition of this fact, the Department has historically provided water allocations on a long term basis. For example, Petitioner's previous modification of allocation permit was for 21 years (2000-2020). (See, Department Decision LMO 00-01) The Department's exercise of this discretion in setting the duration of allocation permits is specifically required by Rule Section 3730.308(a) which provides that "[t]he Department shall determine the duration of each allocation permit, which shall be stated upon the face of the permit." Such a long term approach is also consistent with Rule Section 3730.308(b) which provides that Lake Michigan allocation permits are perpetual (even past the expiration date on the allocation permit), absent a specific action by the Department terminating the allocation permit.

Based on the record of this proceeding discussed above, the Department accepts Dr. Melching's 2018-2030 modeling indicating that, after the completion of Stage 1 of the McCook Reservoir, a discretionary diversion of at least 206 cfs will be needed to achieve 95% compliance with IEPA's proposed new DO standards for the CAWS. The Department also accepts Department Staff's recommendation, with IEPA and Petitioner's concurrence, to increase Petitioner's discretionary diversion amount to 220 cfs to ensure water quality compliance in recognition of acknowledged modeling uncertainties. The Department finds, according to the Melching report, that a discretionary diversion of 220 will yield a system-wide performance of at least 95% after the completion of Stage 1 of the McCook Reservoir. This diversion amount then is expected to meet the 95% DO compliance rate, which the Department has found to be an appropriate measure and standard for achieving water quality in the CAWS for purposes of this proceeding. Further, the Department finds against Interveners' position of insufficient information / uncertainty for Petitioner's 2020-2030 modeling on the basis of the expertise and experience of witnesses for Petitioner, Department Staff and particularly the IEPA that all accepted the use of Petitioner's 2020-2030 modeling for purposes of this proceeding. In contrast, Interveners presented no witness testimony against using the Melching model for assessing 2020-2030 water quality in the CAWS or supporting a position that the identified insufficient information / uncertainty is of such magnitude to render Petitioner's modeling for 2020-2030 unacceptable for purposes of this proceeding. Petitioner also successfully supported the quality,

the scientific peer-review status and reliability of Petitioner's DUFLOW water quality model for the CAWS and the quality of U.S. Army Corps of Engineers and University of Illinois modeling relied upon in the Melching modeling. The Department acknowledges that the type of insufficient information / uncertainty argued by Interveners is inherent in modeling, but finds that such modeling is necessary for assessing Petitioner's future diversion needs for purposes of Department allocation proceedings. The Department also concludes that providing Petitioner's water allocation on a long term basis is consistent with the Department's Lake Michigan water allocation regulatory program, historical practice and Rule Sections 3730.308(a) and (b). Therefore, the Department determines that discretionary diversions of 220 cfs per year are the appropriate modified yearly diversion amounts of Petitioner's allocation permit for Water Years 2018 through 2030.

3. 2031-Forward Post TARP Final Completion

As to the 2031-Forward time period, Petitioner's position on modifying Petitioner's allocation permit was limited to the time period until the expected completion of TARP, which is in Water Year 2030.¹⁰ Petitioner provided no proposed modified yearly diversion of amounts for the time period after TARP final completion.

Department Staff limited their recommendation for modifying Petitioner's allocation permit to "cover the time period up until the completion of TARP." However, Department Staff's testimony also sets forth a proposed allocation table ending with 220 cfs for 2030. This makes Department Staff's recommendation potentially unclear as to whether Department Staff is proposing to modify Petitioner's yearly discretionary diversion to 220 cfs only through the Water Year 2030 expected completion of TARP as stated in the testimony narrative or to modify Petitioner's yearly discretionary diversion to 220 cfs after Water Year 2030 as possibly indicated in the proposed allocation table.¹¹ Given Department Staff's testimony, the clearest statement of

¹⁰ TARP's estimated completion date is 2029. Water Year 2030 begins October 1, 2029. Therefore, in terms of Water Years, the post TARP final completion time period begins in Water Year 2031.

¹¹ This second alternative is the case because of the application of Rule Section 3730.308(b): "At the expiration of each allocation permit, the permit shall be renewed year by year in the same amount and on the same conditions as were in force upon expiration of the permit, unless any entity, or the Department on its own motion, files a petition for modification..." Therefore, if the Department were to modify Petitioner's allocation permit indicating a last year

Department Staff's recommendation is stated in the narrative account. Further, the proposed allocation table is not necessarily inconsistent with Department Staff's recommendation as stated in the narrative account. Therefore, for purposes of this Decision, the Department interprets Department Staff's recommendation as that set forth in their testimony narrative – to modify Petitioner's yearly discretionary diversion to 220 cfs only through the Water Year 2030 expected completion of TARP.

IEPA's position on modifying Petitioner's allocation permit was limited to 2030, which covers only the time period for expected completion of TARP.

Intervener's post Tarp 2031 time period position is clear from Interveners' position that, after 2020, Petitioner's yearly diversion amount should be reduced to 101 cfs or less to require Petitioner to make a new showing regarding its yearly discretionary diversion needs.

The determination of this issue is based on the scope of this proceeding. Petitioner's Petition request for modification is only "to maintain discretionary diversion at 270 cfs until TARP is completed in 2029." (Petition, p. 15) Petitioner's Petition does not request a change in its yearly discretionary diversion for a time period after the completion of TARP. This scope of Petitioner's Petition was confirmed by the Hearing Officer's ruling in the Contested Issues Prehearing Order:

"Previously, the Department identified Petitioner's requested permit modification as a request to maintain discretionary diversion at 270 cfs until TARP is completed in 2029. The Petition does not request a change to Petitioner's permit allocation amount after TARP is completed. Therefore, TARP after completed is not an issue in this proceeding. (Contested Issues Prehearing Order, p. 6)

Based on the limited scope of this proceeding, Petitioner's yearly discretionary diversion for the time period after the completion of TARP in this proceeding (Water Year 2031-Forward) is not modified from Petitioner's yearly discretionary diversion for the time period after the completion of TARP in its current allocation permit. To wit, Petitioner's current allocation permit provides for yearly discretionary diversion of 101 cfs after the expected completion of TARP. Therefore, the Department concludes that Petitioner's yearly discretionary diversion for

of 2030 with a yearly discretionary diversion 220 cfs, Petitioner's yearly discretionary diversion after 2030 would be 220 cfs in perpetuity until changed. This result of perpetual allocation is identified in Interveners' Brief, pp. 10-11.

the time period after the completion of TARP in this proceeding (Water Year 2031-Forward) remains 101 cfs per year.

Based on the foregoing, this conclusion is consistent with the scope of this proceeding as set out in Petitioner's Petition, the scope of this proceeding as ruled upon by the Hearing Officer in the Contested Issues Prehearing Order, the positions of Petitioner, Department Staff and IEPA and the Department's approach to regulating the Lake Michigan water allocation program on a long term basis. This conclusion is also consistent with Interveners' position in this proceeding as it results in Interveners' exact proposed reduction in Petitioner's yearly discretionary diversion amount, albeit after the full completion of TARP in 2031 rather than after the partial completion of TARP McCook Phase 1 in 2021. Therefore, the Department determines that discretionary diversions of 101 cfs per year are the appropriate modified yearly diversion amounts of Petitioner's allocation permit for Water Years 2031-Forward.

As to the allocation permit time period going "forward," other than Interveners' position to essentially limit Petitioner's allocation permit to a five year time frame at 2020, no parties provided a position on the duration of a modified Petitioner allocation permit. The Department notes that there have been no significant reported problems with Petitioner's current allocation permit duration. Therefore, consistent with the approximate 20 year permit duration of Petitioner's last permit modification proceeding, the Department determines to issue a 20 year allocation permit in this proceeding as well – meaning that Petitioner's yearly discretionary diversion amounts will be modified to 101 cfs for Water Years 2031 through 2035. This determination is also consistent with the Department's approach to regulating the Lake Michigan water allocation program on a long term basis.

ii. Requested Permit Conditions Requiring Conservation Measures

Department Staff and Interveners have requested the Department to condition Petitioner's allocation permit in this proceeding to require Petitioner to consider and implement certain requested conservation measures ("Requested Conservation Measures"). The Department considers the Requested Conservation Measures issue for purposes of this Decision as follows.

A. Party Positions on Requested Conservation Measures

The following discussion of the parties' positions on Requested Conservation Measures is limited to presenting the actual conservation measures requested in post-hearing briefs. Due to the nature of this issue being a matter of legal interpretation, the parties' positions as to legal arguments are addressed below in sections IV.f.ii.C. and D.

Petitioner's position is opposition to the Requested Conservation Measures. (See Petitioner's Response Brief, pp. 17-32)

Department Staff provided the following position on Requested Conservation Measures:

The District is currently in the process of working with their modeling consultant in the development of procedures to optimize the use of discretionary diversion. While they anticipate initial implementation of a portion of the system in 2015, they acknowledge that it will take several weather seasons to fine tune the optimization strategy and process. The Department is supportive of the District's intent to develop guidance for the optimal use of Discretionary Diversion, along with the Instream Aeration Stations and the Sidestream Elevated Pool Aeration Stations. This guidance will be an important tool to conserve and manage their discretionary diversion allocation, as specified in Section 3730.307(c)(10). The Department recommends that this project be included as a condition in the Hearing Officers' Opinion and Order on this petition. (Direct Testimony of Daniel Injerd, p. 4)

and

The Department also requests that the order include a requirement that the District maintain all lakefront sluice gates and structures under its jurisdiction to reduce leakage, maintain the accuracy of reported discretionary diversion flows, and complete and implement the optimization report as described in Dr. Melching's testimony. (Direct Testimony of Daniel Injerd, p. 6)

IEPA provided no substantive position on requested conservation measures.

Intervenors first agreed with the Department Staff's Requested Conservation Measures. (Intervenors' Brief, p. 13) Intervenors then provided the following position on Intervenors' Requested Conservation Measures:

The law and the evidence requires that conservation practices requested by IDNR staff and additional conservation practices requested by Intervenors be mandated as a condition of the permit. As will be explained below, the law as set forth in the Great Lakes-St. Lawrence River Basin Water Resources Compact Act, 45 ILCS 147, the Level of Lake Michigan Act, 615 ILCS 50/5, and the IDNR regulations of 17 Ill. Adm. Code 3730, supports requiring that

diversions be allowed only to the extent that they cannot be avoided through feasible conservation practices. Further, these laws and regulations require that conservation practices be imposed as a condition on diversions when permits are issued or modified.

To show that implementation of conservation practices may reduce the need for discretionary diversions to maintain the CAWS in a reasonably satisfactory sanitary condition and meet water quality standards, Interveners offered proof regarding types of conservation practices that should be studied during the period between the granting of the petition and 2020. If, after the required studies, it is concluded that implementation of any or all of these practices would allow the diversion to be reduced for the years 2021 and thereafter, implementation of those practices should be imposed and the level of diversion should be adjusted downward accordingly. In particular, Interveners offered evidence that permitting the 270 cfs diversion until 2018 and 220 cfs from 2018 through 2020 should be conditioned on studies of:

- green infrastructure (Pre-filed Testimony of Karen Hobbs)
- advanced wastewater treatment (Pre-filed Testimony of Dr. Cynthia Skrukud)
- wetlands restoration (Testimony of Stacy Meyers and attached Statement of Scott Peyton), and
- increased aeration (Pre-filed Testimony of David Zenz offered by MWRD to the Illinois Pollution Control Board in R08-9 in which MWRD itself proposed increased aeration at two sites in the CAWS in order to prevent violations of water quality standards, attached as Ex. A to Prehearing Memorandum of Interveners, filed 9/18/2015) (Interveners' Brief, pp. 14-15)

B. Department Lake Michigan Water Allocation Regulatory Program

To provide context to the consideration of the parties' legal arguments for interpreting the Rule regarding the Requested Conservation Measures, the Department provides the following discussion of the Department's Lake Michigan water allocation regulatory program ("Water Allocation Program") setting forth the Department's interpretation and implementation of its Water Allocation Program. This discussion addresses the Department's interpretation and implementation of the Act, the Rule, the Rule's approach to conservation practices and the Rule's standard for required conservation practices. This discussion is provided to address several significant misapprehensions of the parties regarding the application of the Rules to Requested Conservation Measures in this proceeding.

1. Level of Lake Michigan Act

Discussion of the Department's Water Allocation Program begins with consideration of the program's authorizing statute for same – the Level of Lake Michigan Act ("Act"), 615 ILCS 50. Section 3 of the Act tasks the Department to "devise and develop a continuing program" for allocating Lake Michigan water. Sections 3 through 10 provide direction for certain details of the program. Section 9 authorizes the Department to "prescribe and publish reasonable rules and regulations relating to the jurisdiction, diversion and utilization, and, control and regulation of the water from the Lake Michigan watershed."

The Department notes two matters regarding the Department's development of the Water Allocation Program pursuant to the Act. First, the Act specifically does not provide sufficient details as would be required for a complete functioning regulatory program. Rather, the Act places the responsibility for providing the details of the Water Allocation Program on the Department pursuant to Sections 3 and 9 of the Act. In fact, the Rule is the result of the Department providing sufficient procedural and substantive details, consistent with the details provided by the Act, to create a Water Allocation Program. Regarding the contested issues in this proceeding, the Act provides certain procedural and substantive direction for applications for allocation permits (See, 615 ILCS 50/5); but the Act is silent as to the procedure or substantive requirements for when circumstances warrant an existing allocation permit to be modified. The Department determined that providing for permit modifications was an element consistent with the direction of the Act and necessary for a functioning regulatory program. Therefore, providing the procedural and substantive details on permit modifications for the Water Allocation Program was the role of the Department. Similarly, the Act provides that "all feasible means reasonably available" to program permittees for water conservation are to be required; but the Act is silent as to how this standard is to be determined or applied for purposes of requiring actual specific conservation practices on the part of permittees. Providing the Water Allocation Program's procedural and substantive details on permittee conservation requirements was again the role of the Department.

Second, Section 9 of the Act requires the Department's development of the Water

Allocation Program to be performed pursuant to rulemaking under the Illinois Administrative Procedure Act (5 ILCS 100). The Department's use of the Administrative Procedure Act's rulemaking process resulted in the Water Allocation Program development receiving public input, the Department making final program decisions based on such input and the General Assembly providing review and ultimately approval. The Water Allocation Program was initially promulgated pursuant to the Administrative Procedure Act rulemaking process and the Rule has been subsequently amended numerous times. The last Rule amendment was made pursuant to rulemaking in 2014. Per the record in this proceeding, Intervener Alliance for the Great Lakes¹², in fact, participated in that rulemaking proceeding and specifically raised issues and suggestions regarding the Rule's requirements regarding conservation practices. (Intervener Prehearing Memorandum, Exhibit B Letter from Department regarding rulemaking)¹³ Based on such public comment and the Department's experience and expertise, the Department made the final program decision on amending the Rule, specifically including consideration of the Rule's approach to conservation practices, and submitted the Rule for General Assembly approval through the Joint Committee on Administrative Rules. The Rule was approved by the Joint Committee and became effective November 18, 2014. Therefore, the Rule as currently promulgated sets forth the Water Allocation Program as determined by the Department and approved by the General Assembly.

2. Rule Procedures For Permit Applications, Permit Modifications and Conservation Practices

Regarding the contested issues in this proceeding, Subpart C of the Rule, entitled Allocation Rules, provides the substantive regulatory procedures for permit applications, permit modifications and conservation practices. Before discussing the regulatory procedure for each issue, the Department notes how each procedure is intended to fit into the whole of the Water Allocation Program set forth in the Rule.

¹² The Department notes that Petitioner also participated in the 2014 rulemaking proceeding, but no evidence of Petitioner's position or the Department's response thereto is provided in the record of this proceeding.

¹³ Reference to Intervener's Prehearing Memorandum Exhibit B is made only to document participation in the previous 2014 rulemaking amending the Rule and is not made for purposes of considering Interveners' arguments in

For permit applications, the intent of the Rule's permit application procedure is to reach a decision on permit applications by creating a process to (1) identify an applicant and the applicant's proposed Lake Michigan water use, (2) determine whether an applicant's proposed water use qualifies for an allocation permit, and, if so, (3) determine the appropriate amount of water to allocate to the applicant. The Rule's permit application process assumes that the Department has no information on an applicant or its proposed water use, because a permit application process by definition applies to entities that are not currently a part of the Department's Water Allocation Program as permittees.

Section 3730.301(b) provides the beginning of the permit application regulatory process: "The Department shall issue an allocation permit to any applicant it determines to be entitled to an allocation of water from the Lake Michigan diversion according to the criteria set out in this Subpart." The "criteria" in Subpart C for permit applications are set forth in Section 3730.302 Application, Section 3730.303 Classification of Water Users and Section 3704 Water Needs Criteria. Each Section addresses one of the three areas of the Water Allocation Program permit application procedure identified above.

Section 3730.302 Application obtains the necessary information to identify an applicant and an applicant's proposed Lake Michigan water use. This can be seen in the first sentence of Section 3730.302: "An application for an allocation permit shall contain the following information, to be filed on forms provided by the Department:" Section 3730.302 continues on with a list of information necessary for the Department's use in making a permit application determination per Sections 3730.303 and 3730.304.

Section 3730.303 Classification of Water Users provides the regulatory system which the Department uses to determine whether a permit application qualifies for an allocation permit. Subsection (a) sets forth the Rule's system: "Applicants will be divided into broad categories determined by water use. The categories in order of descending priorities are: Categories IA, IB, IIA, IIB and III." Section 3730.303 continues on to provide the definitions for each category, the method for Department determination for certain categories and the system of prioritization of allocations between the categories. After applying Section 3730.303, the Department will have

this proceeding.

determined whether a permit application qualifies for an allocation permit and, if so, will proceed to Section 3730.304.

Section 3730.304 Water Needs Criteria provides the criteria that the Department uses to determine the appropriate amount of water to allocate to an applicant. This process is set forth generally in the introductory paragraph to Section 3730.304:

The Department will determine anticipated water needs for each applicant. The Department will take into consideration in making that determination the population of the area to be served, projected population growth, current and projected per capita consumption within the area, the nature and extent of industrial uses (including a consideration of typical requirements for similar industries), municipal and hydrant uses (public facilities, park upkeep, fire protection), implementation of conservation practices, and the reduction of non-revenue water as required by this Section.

Section 3703.304 continues on to provide details of the criteria listed above. After applying Section 3730.304, the Department will have determined the anticipated water needs for an applicant and, therefore, the appropriate amount of water to allocate.

Sections 3730.302, 3730.303 and 3703.304 provide the entirety of the Rule's substantive permit application procedure.

For permit modifications, the intent of the Rule's permit modification procedure is to reach a decision on petitions for modification of an allocation permit by creating a process to (1) identify the basis for permit modification, (2) determine whether such basis justifies permit modification, and (3) determine the appropriate permit modification. Contrary to the Rule's permit application process, the permit modification process assumes that the Department has the necessary information on an entity and its water use, because a permit modification process by definition applies to permittees that are currently a part of the Department's Water Allocation Program rather than new applicants. The permit modification process, then, focuses on the basis for modification and the appropriate modification as a result of said basis. This limited nature of permit modification process can be seen in the following Rule provisions governing same.

Section 3730.301(e) is the first reference to permit modification. Section 3730.301(e) covers a limited basis for permit modification, that of a permittee's underutilization of its allocation permit: "If, over a five-year running period, a permittee appropriates water in amounts less than 90% of its allocation for the period, any entity or the Department, on its own motion, may initiate

proceedings for a modification according to Sections 3730.204(c) and 3730.310. Any modification shall be preceded by notice as provided in Section 3730.206, and a hearing shall be held in conformance with Subpart B.” Of note, Section 3730.301(e) does not direct permittees to the permit application process of Sections 3730.302, 3730.303 and 3703.304; but rather directs permittees directly to Section 3730.310 Petitions for Modification. This is consistent with the limited nature of the Rule provisions governing permit modifications.

Section 3730.310 Petitions for Modification sets forth all of the Rule’s bases for permit modification and the substantive procedure for Department consideration of petitions for modification. Section 3730.310(a) provides:

Petitions for modification of an allocation permit may be filed by any entity at any time. Petitions for modification must comply with Section 3730.204(c). If the Department finds that any such petition is supported by an adequate statement of reasons, is not plainly devoid of merit or frivolous, and does not deal with a subject on which a hearing has been held within the preceding six months, a hearing shall be held pursuant to Sections 3730.201 through 3730.215. Copies of each petition for modification shall be served upon all parties to the allocation proceedings. A copy of the service list may be obtained from the Department.

Similarly to Section 3730.301(e), there is no reference to the Rule’s permit application process of Sections 3730.302, 3730.303 and 3703.304; which is consistent with the limited nature of the Rule provisions governing permit modifications.

Section 3730.204(c), referenced in both Sections 3730.10 and 3730.301(e), sets forth the procedural information requirements for petitions for modification: “In the case of a Petition for Modification, all information required under Section 3730.310 including reference to any change in circumstances or any information previously submitted pursuant to Section 3730.302 and any claimed errors in interpretation of the Act or the rules.” Here Section 3730.204(c) is focusing only on changes in circumstances and changes in information to that originally submitted in a permittee’s application for permit pursuant to Section 3730.302.¹⁴ This is again consistent with the limited nature of the Rule provisions governing permit modifications.

The limited nature of the permit modification procedure is intentional, as the permit

¹⁴ Section 3730.204(c) is not requiring all of the information and a new submittal pursuant to Section 3730.302 for a petition for modification; rather it is the opposite. This provision is contrasted with the information requirements for permit applications set forth in Section 3730.204(a): “In the case of an Application for Allocation, all information required under Section 3730.302.” (emphasis added)

modification procedure is designed to not duplicate the Rule's permit application process of Sections 3730.302, 3730.303 and 3703.304. The permit modification procedure does not need information on an existing permittee similar to the information required for new applicants under Section 3730.302 Application; because the Department already has this information from when the permittee previously went through the application process.¹⁵ The permit modification procedure does not need to determine whether an applicant qualifies for an allocation permit under Section 3730.303 Classification of Water Users; because the petitioner is already a permittee. Finally, the permit modification procedure does not need to determine the anticipated water needs of an applicant under Section 3730.304 Water Needs Criteria; because the Department already knows the permittee's actual historic water use.¹⁶

Section 3730.310 provides the entirety of the Rule's substantive permit modification procedure.

For conservation practices, the Rule's conservation practices procedure sets forth a permit condition approach ("Permit Condition Approach") to required conservation practices. In codifying a Permit Condition Approach, the Rule mandates the following: (1) that every allocation permit has a permit condition requiring conservation practices, and (2) that such required conservation practices are those practices specified in Section 3730.307. As such, the Rule does not provide for a case by case determination ("Case By Case Determination Approach") of what conservation practices a particular applicant seeking a permit or a permittee seeking a permit modification are required to implement. The Rule's Permit Condition Approach to conservation practices can be seen in the following Rule provisions governing same.

Section 3730.301(b) sets forth the following regarding conservation practices: "The permit shall state the allocation the applicant is allowed, the starting date and duration of the permitted allocation, and such conditions as specified in Sections 3730.307 [Conservation Practices and Other Permit Conditions] and 3730.309 [Reporting Requirements] as the Department may require the applicant to comply with in order to receive or to continue to receive

¹⁵ The only exception to this is if a permittee's petition for modification claims a change to said information originally provided by the permittee as a basis to justify or impact its petition for modification.

¹⁶ Permittee water use is reported to the Department on a yearly basis for every year of an allocation permit pursuant to Section 3730.309 Reporting Requirements.

its allocated share of the Lake Michigan diversion.” (emphasis added) (bracketed explanatory text added) The Rule language of Section 3730.301(b) provides direction on two issues relevant to the contested issues in this proceeding. First, Section 3730.301(b) states that allocation permits shall be conditioned to require conservation practices pursuant to Section 3730.307. Sections 3730.301(b) and 3730.307 provide for no exceptions to the conservation practices permit condition requirement generally and Section 3730.310 provides for no exception to this conservation practices requirement for permits that have been modified specifically. Modified permits are still permits. Therefore, Section 3730.301(b) requires all allocation permits, original or modified, to be conditioned to require conservation practices, including Petitioner’s allocation permit as currently modified and after it is modified again pursuant to this proceeding.

Second, Section 3730.301(b) states that the conservation practices required pursuant to this permit condition are “such conditions as specified” in Section 3730.307 Conservation Practices and Other Permit Conditions. By this language, Section 3730.301(b) both limits the conservation practices required to *only* those specified in Section 3730.307, but also mandates the required conservation practices to include *all* conservation practices specified in Section 3730.307. This is consistent with the Permit Condition Approach rather than the Case By Case Determination Approach, as discussed above.

Section 3730.307(a) provides this same approach: “The Department shall condition allocations within a user category upon required conservation practices for each user category as specified in subsections (b) and (c). Failure by any permittee to meet the conservation requirements applicable to it within a reasonable period of time will, upon notice, hearing and determination of the failure, constitutes a violation of a Department order.” (emphasis added) Section 3730.307(a) again both limits the conservation practices required to only those specified in Section 3730.307(b) and (c) and also requires all of the conservation practices specified in Section 3730.307(b) and (c). This Permit Condition Approach results in the Section 3730.307 Rule language serving as the conservation practices permit condition language.

This has been the Department’s consistent interpretation and implementation of conservation practices for the Water Allocation Program Rule since the Rule was first promulgated. To wit, the Department’s Decision for proceeding LMO-80-4 (Consolidated), which was the first water allocation

decision after Rule promulgation and which was provided to the parties for their information via the Hearing Officer's Contested Issues Prehearing Order, states the following regarding the Rule's approach to conservation practices:

13.000 Conservation

13.100 Section 5 of the Act states, in part, as follow:

“The Department shall require that all feasible means reasonably available to the State and its municipalities, political subdivisions, agencies and instrumentalities shall be employed to conserve and manage the water resources of the region and the use of water therein in accordance with the best modern scientific knowledge and engineering practice.”

13.110 This mandate is repeated in Paragraph 4 of the revised U.S. Supreme Court decree as a condition which must be met before the State can request a future modification of this decree.

13.120 Section 820.307 [predecessor to renumbered Section 3730.307 Conservation Practices] of the Rules is the Department's response to this requirement. This section lists a number of conservation practices designed to eliminate wasteful water use. Some of these practices were required in the last allocation and the rules which accompanied that proceeding.

(Department Decision LMO-80-4 (Consolidated), p. 24) (bracketed explanatory text added)

Thereafter, the Department provided the following in the Decision's Ordering paragraphs:

ORDER

3. Each permittee shall comply with the appropriate reporting requirements in Section 820.309 [predecessor to renumbered Section 3730.309 Reporting Requirements] of the Rules.

4. Each permittee in Category IA and Category IIB shall comply with the requirements of Sections 820.307(b), (c)(1)-(7), and (e) of the Rules.

...

6. Each permittee in Category IB and Category IIA shall comply with Section 820.307(c)(9) [predecessor to renumbered Section 3730.307(c)(10)] of the Rules.

(Department Decision LMO-80-4 (Consolidated), p. 60) (bracketed explanatory text added)

Similar permit condition language requiring compliance with Section 3703.307 Conservation Practices (and Section 3703.309 Reporting Requirements) will be included in the

Ordering section of this Decision.¹⁷

3. Permit Condition Approach to Conservation Practices

Based on the foregoing, the Rule incorporates the Permit Condition Approach to the Act's conservation practices program requirement. While other approaches, such as a Case By Case Determination Approach, might also have been available consistent with the Act's conservation practices program requirements, such approaches are not set forth in the Rule. Further, the Department notes that the record of this proceeding shows that the Rule's Permit Condition Approach has created a successful conservation practice component to the Water Allocation Program that provides for open public participation, robust application and measurable results.

As to public participation, the Rule's Permit Condition Approach provides for open public participation within the context of the Illinois Administrative Procedure Act's rulemaking process. Illinois Administrative Procedure Act rulemakings provide for formal public participation directly during the first notice period and through the public's representatives via the General Assembly's Joint Committee on Administrative Rules during the second notice period. (5 ILCS 100/5-5 et seq.)

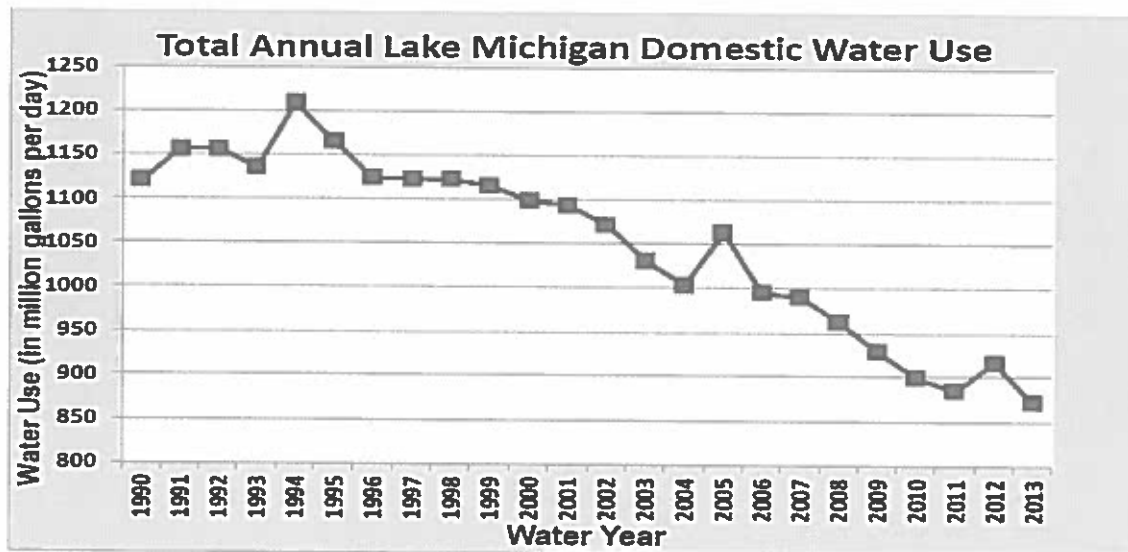
As to robust application, the Rule's Permit Condition Approach requires all Water Allocation Program permittees to comply with all conservation requirements set forth in Section 3730.307 "for each user category as specified in subsections (b) and (c)." The Rule's Permit Condition Approach does not allow permittees to argue that all or certain of the Rule's required conservation practices should not apply to their particular situation; all user category permittees are held to the same conservation practice requirements and updated conservation practices apply automatically to all permittees pursuant to Rule amendments (without the necessity of administrative proceedings for every permittee). The two user categories are domestic water

¹⁷ The Department notes that Sections 3730.301(b) and 3730.307 are mandatory in requiring the Department to condition allocation permits to require applicable conservation practices. As such, these provisions of the Rule mandate compliance with Section 3730.307 (and Section 3730.309 Reporting Requirements) irrespective of the inclusion of permit condition language into an allocation permit specifically requiring same. Therefore, with respect to any allocation permit that fails to include such permit condition language, compliance with all conservation practices [and reporting requirements] is still required by the Rule.

supply users (Categories IA and IB) and direct diversion users (Categories IIA and IIB). Petitioner is a direct diversion user. The bulk of the required conservation practices of Section 3730.307 apply to domestic water supply users – minimum distribution system water loss (Section 3730.307(b)), leakage monitoring and correction (Section 3730.307(c)(1)), new construction water meters (Section 3730.307(c)(2)), major remodeling water meters (Section 3730.307(c)(3)), plumbing fixture efficiency ordinances (Section 3730.307(c)(4)), closed system air conditioning ordinances (Section 3730.307(c)(5)), public lavatory ordinances (Section 3730.307(c)(6)), car wash water recycling ordinances (Section 3730.307(c)(7)), water sprinkling ordinances (Section 3730.307(c)(8)), and public programs promoting water efficiency (Section 3730.307(c)(9)). The required conservation practice for Petitioner as a direct diversion user is set forth in Section 3730.307(c)(10): “Installation of facilities and implementation of programs to reduce to a reasonable minimum, and to accurately account for, water used for navigational and discretionary purposes.”

As to the measurable results of the Rule’s Permit Condition Approach and the foregoing required conservation practices, the record of this proceeding provides the following information. For domestic water supply users, Department Staff provides the following information on historic water use:

One of the water use trends the Department has documented is a significant decrease in domestic water use, as illustrated in the table below.



The Department believes that total domestic water use will remain at the levels recently recorded. A renewed focus on water conservation and efficiency measures, both by the Department and our domestic permittees, may result in some additional reduction in overall domestic water use. (Direct Testimony of Daniel Injerd, p. 2)

Per Department Staff's information, domestic water use has gone from a high of over 1200 million gallons of water per day in 1994 to less than 900 million gallons of water per day in 2013. This is over a 25% reduction in domestic water usage. While no specific analysis of the effect on these numbers due to the Rule's required conservation practices is provided, the measurable results and the trend generally suggest a successful conservation practice component to the Water Allocation Program regarding domestic water supply users.

For direct diversion use, the record of this proceeding indicates that Petitioner's allocated direct diversion water use for purposes of CAWS water quality started at 320 cfs in 1981 and reduced to 270 cfs in 2000. (Department Decision LMO-80-4 (Consolidated), pp. 51-52; Department Decision LMO 00-01, pp. 1-2) Pursuant to this Decision, Petitioner's direct diversion use for purposes of CAWS water quality will additionally be reduced to 220 cfs in 2018 and to 101 cfs in 2031. Taking into account only the near term 2018 reduction to 220 cfs, this is over a 30% reduction in direct diversion water use for purposes of CAWS water quality.¹⁸ Again, such measurable results and the trend generally suggest a successful conservation practice component to the Water Allocation Program regarding direct diversion use.

4. Rule Standard for Petitioner's Required Conservation Practices

The required conservation practice for Petitioner as a direct diversion user is set forth in Section 3730.307(c)(10): "Installation of facilities and implementation of programs to reduce to a reasonable minimum, and to accurately account for, water used for navigational and discretionary purposes." The Rule's approach sets forth a standard for conservation practices, rather than a list of specified conservation practices as for domestic water supply users. This has been the approach of the Rule since its initial promulgation, as originally explained by the Department in

¹⁸ The future 2031 reduction to 101 cfs will result in a 68% reduction in direct diversion water use for purposes of CAWS water quality.

the Department's Decision for proceeding LMO-80-4 (Consolidated):

- 13.600 Section 820.307(c)(9) [predecessor to renumbered Section 3730.307(c)(10)] requires minimal use and accurate reporting for Lake Michigan water used for purposes associated with direct diversion. While this rule does not state any specific practices which must be followed, it is generally related to the mandate in Section 5 of the Act which states that all feasible means must be employed to conserve and manage the water resources of the region. ...
(Department Decision LMO-80-4 (Consolidated), p. 27) (bracketed explanatory text added)

The record of this proceeding provides information on the results of the Rule's standard based required conservation practices approach. In addition to the reductions in direct diversion allocation amounts discussed above, Department Staff provided the following specific conservation practices currently being implemented by Petitioner:

The District is currently in the process of working with their modeling consultant in the development of procedures to optimize the use of discretionary diversion. While they anticipate initial implementation of a portion of the system in 2015, they acknowledge that it will take several weather seasons to fine tune the optimization strategy and process. The Department is supportive of the District's intent to develop guidance for the optimal use of Discretionary Diversion, along with the Instream Aeration Stations and the Sidestream Elevated Pool Aeration Stations. This guidance will be an important tool to conserve and manage their discretionary diversion allocation, as specified in Section 3730.307(c)(10). The Department recommends that this project be included as a condition in the Hearing Officers' Opinion and Order on this petition.

The Department also notes that while modeling to determine the need for discretionary diversion after the completion of TARP has not been done, there is agreement that it [TARP] will significantly reduce the need for discretionary diversion; hence it [TARP] can be considered as the most important component of a long range plan to conserve and minimize the need for discretionary diversion.

Finally, the Department notes that the District has recently completed the renovation of the Wilmette Pumping Station, a renovation that includes new gates and variable speed pumps. Along with the four sluice gates that were replaced on the south side of the Chicago River Controlling Works in 1999, these lakefront structures will provide the District with improved control of discretionary diversion flows into the CAWS. (Direct Testimony of Daniel Injerd, p. 4) (bracketed text added)

Petitioner's conservation practices of instream and sidestream aeration stations,

discretionary diversion use optimization modeling and TARP are ongoing. Petitioner's conservation practice of equipment and infrastructure renovations at Wilmette Pumping Station and the Chicago River Controlling Works have been completed and are now in use. To date, the Department has not objected to Petitioner's compliance with the Rule's standard for required conservation practices set forth in Section 3730.307(c)(10), as Department has neither pursued a notice of violation of Section 3730.307(c)(10) nor amended the Rule to require any specific conservation practices.

C. Intervenors' Legal Objections to Contested Issues Prehearing Order

The issue of Intervenors' Requested Conservation Measures was presented during the prehearing phase of this proceeding and ruled upon by the Hearing Officer pursuant to the Contested Issues Prehearing Order and the subsequent discovery and evidentiary rulings consistent with the Contested Issues Prehearing Order. The Hearing Officer's rulings determined that the issue of Intervenors' Requested Conservation Measures was not appropriately available under the Rules to be contested in this permit modification proceeding. Intervenors have properly requested that this issue be decided by the Department through its Director in this Final Administrative Decision.

Consideration of the Hearing Officer's ruling in the Contested Issues Prehearing Order begins with Intervenors' Statement of Contested Issues. The issues of Intervenors' Requested Conservation Measures were raised in Intervenors' fourth through eleventh contested issues: more accurate monitoring of DO levels in the CAWS, improvement of MWRD wastewater discharges into the CAWS, elimination or reduction of combined sewer bypass flows into the CAWS, additional aeration facilities, additional green infrastructure, redirecting water flows in parts of the CAWS and general studies of conservation practices. Intervenors cited Rule Section 3730.304¹⁹ Water Needs Criteria as the substantive legal basis for Intervenors' Requested Conservation Measures contested issues. Pursuant to the Contested Issues Prehearing Order, the Hearing Officer ruled that Intervenors' Requested Conservation Measures contested issues were not appropriately available to be contested in this proceeding based on said issues' relevance to

Section 3730.304 Water Needs Criteria rather than Section 3730.310 Petitions for Modification, which governs this proceeding. Specifically, Section 3730.304 applies to the substantive decision requirements for the permit application process of the Rule (generally Sections 3730.302 through 3730.304) rather than the permit modification process of the Rule (Section 3730.310), which is the subject of this proceeding.

The Department affirms the Hearing Officer's Contested Issues Prehearing Order ruling that Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this proceeding. The Department concludes, based on the preceding discussion of the Water Allocation Program as set forth in the Rule and on the reasoning set forth in the Contested Issues Prehearing Order, that Interveners' Requested Conservation Measures contested issues improperly attempt to contest Section 3730.304 permit application issues in this Section 3730.310 permit modification proceeding. The Department further concludes that the Hearing Officer, in requiring Interveners to cite applicable provisions of the Act or the Rule in a Statement of Contested Issues and ruling upon same, appropriately exercised his authority as Hearing Officer with respect to conducting a fair and impartial hearing, taking all necessary action to avoid delay, to maintain order, and to ensure development of a clear and complete record and with respect to conducting prehearing conferences for the purposes of formulating issues and the simplification of issues of fact and law pursuant to Sections 3730.210, 3730.207(a) and 3730.207(a)(1).

The Department additionally affirms the Hearing Officer's Contested Issues Prehearing Order discovery ruling on Interveners' Motion to Compel regarding Interveners' Requested Conservation Measures contested issues. The Department concludes that the Hearing Officer ruled upon Interveners' Motion to Compel appropriately and consistently with the rulings on Interveners' contested issues in denying Interveners' requested discovery. The Department further concludes that the Hearing Officer, in ruling upon Interveners' Motion to Compel, appropriately exercised his discretion as Hearing Officer to order and rule upon written discovery pursuant to Sections 3730.207(a)(1) through (6), 3730.208(a)(1) and (2) and 3730.210(f).

¹⁹ This analysis also applies Act Section 615 ILCS 50/5 also cited by Interveners.

D. Interveners' Post-Hearing Legal Arguments

Interveners raise their objections to the Hearing Officer's rulings on the Interveners' Requested Conservation Measures contested issues in a Prehearing Memorandum and their post hearing briefs. For purposes of this Decision, the Department considers Interveners arguments as set forth in their post hearing briefs. Interveners have properly requested that this issue be decided by the Department through its Director in this Final Administrative Decision. The Department considers whether Interveners' arguments provide a basis for overturning the Contested Issues Prehearing Order

Interveners initially object to the Hearing Officer's rulings on the general legal argument that "[t]he Department should impose conservation practices under 17 Ill. Adm. Code 3730.306(e)(1) as a condition of granting the increased allocation." (Interveners' Brief, p. 19) In support of Interveners' general argument, Interveners state: "Illinois law requires that all users of Lake Michigan water must implement reasonable conservation practices. The Hearing Officer clearly erred in holding to the contrary." (Interveners' Brief, p. 19) Interveners then proceed to set forth multiple specific arguments on this issue. (Interveners' Brief, pp. 19-38)

First, the Department notes that the Hearing Officer never ruled to the contrary of Interveners' legal position that Illinois law requires Petitioner, as well as all Lake Michigan water allocation permittees, to implement conservation practices. Specifically, Interveners misapprehend the Hearing Officer's ruling in the Contested Issues Prehearing Order to absolve Petitioner from the Rule's required conservation practices.²⁰ This is not the case.²¹

The Hearing Officer's ruling in the Contested Issues Prehearing Order was predicated

²⁰ The Department recognizes that conservation practices are a significant component of the Water Allocation Program and that such a ruling would be of legitimate concern to interested parties. Therefore, to correct this misapprehension to the fullest extent possible, the Department in this Decision, along with analyzing the parties' arguments, took the additional step of providing a detailed discussion to explain its interpretation and implementation of conservation practices in the Water Allocation Program. (See, section IV.f.ii.B.)

²¹ As set forth in section IV.f.ii.B.2. herein, the Department's interpretation and implementation of the Rule's requirements for conservation practices for modified permits is as follows: Sections 3730.301(b) and 3730.307 provide for no exceptions to the conservation practices permit condition requirement generally and Section 3730.310 provides for no exception to this requirement for permits that have been modified specifically. Modified permits are still permits. Therefore, Section 3730.301(b) requires all allocation permits, original or modified, to be conditioned to require conservation practices, including Petitioner's allocation permit as currently modified and after it is modified again pursuant to this proceeding.

upon Interveners' identification of Rule Section 3730.304 as the legal substantive basis for Interveners' Requested Conservation Measures contested issues. As discussed fully in section IV.f.ii.B. herein, Section 3730.304 is part of the process for permit application proceedings, not permit modification proceedings. Section 3730.304 considers conservation measures for the purpose of determining the appropriate amount of water to initially allocate to a permit applicant. The Contested Issues Prehearing Order specifically analyzed whether Section 3730.304 applied in a Section 3730.310 proceeding. The Contested Issues Prehearing Order did not analyze whether Section 3730.307 applied in a Section 3730.310 proceeding (or to permits after modified pursuant to a Section 3730.310 proceeding). The mention of Sections 3730.301 through 3730.309 in the Contested Issues Prehearing Order was to explain that the Rule differentiates the substantive decision requirements that apply to Section 3730.310 proceedings from the substantive decision requirements set out for the other types of proceedings in the rest of the Rule.²² Specifically, Sections 3730.301 through 3730.309 include substantive decision requirements for permit application proceedings (Sections 3730.302 through 3730.304), emergency permit proceedings (Section 3730.305), permit transfer proceedings (Section 3730.306) and permit modification proceedings (Section 3730.310). The Contested Issues Prehearing Order never addressed the issue of permit conditions requirements set forth in Sections 3730.301 through 3730.309 – required conservation practices (Section 3730.307) and required reporting (Section 3730.309), as such Rule sections were never cited in Interveners' Statement of Contested Issues as bases for contested issues in this proceeding.

Second, the Department notes that Interveners now cite Section 3730.307 and the entire Rule in their Prehearing Memorandum and post hearing briefs. Such citation and argument was thought to support Interveners' contested issues to consider conservation measures under Section 3730.304 to determine Petitioner's appropriate yearly diversion amounts in this proceeding. However, it appears that Interveners' have actually expanded their contested issues to contest what conservation measures should be required to be considered for implementation and / or

²² The Contested Issues Prehearing Order stated: "... Section 3730.310 specifically incorporates the Rule's procedural requirements set forth in Sections 3730.201 through 3730.215, but fails to similarly incorporate the rules Rule's substantive decision requirements set forth in Sections 3730.301 through 3730.309, which is consistent with the interpretation that the substantive decision requirements in those sections were intended not to apply to 3730.310

required to be implemented by Petitioner in this proceeding pursuant to Section 3730.307.

This expansion of Interveners' conservation arguments has been unclear as Interveners have not petitioned to amend their Statement of Contested Issues, which only cited Section 3730.304. Interveners were required to provide their Statement of Contested Issues with specific citations to the Rule for the purpose of determining the appropriate issues to be contested in this proceeding. The citations of law in Interveners' Statement of Contested Issues were intended to be relied upon by the parties to this proceeding, as well as the Hearing Officer. Further, Interveners' legal filings now request consideration and implementation of specified conservation measures pursuant to Section 3730.307, but it is unclear whether Interveners still argue for the consideration of conservation measures to determine the appropriate amount of water to allocate in this modification proceeding pursuant to Section 3730.304. Finally, Interveners' citations to the legal bases for their requests are similarly unclear. The citation accompanying Interveners' Requested Conservation Measures is to the Rule generally, rather than citing Section 3730.307 and / or Section 3730.304 specifically. (Interveners' Brief, pp. 14-15) The citation accompanying Interveners' general legal argument here cites Section 3730.306(e)(1), which is neither Section 3730.307 nor 3730.304 and actually is not even a section or typo of a section of the Rule. (Interveners' Brief, p. 18) The Department addresses the unclear nature of Interveners' Requested Conservation Measures contested issues as follows: For purposes of creating an accurate and complete record for this Decision, the Department interprets Interveners' Requested Conservation Measures contested issues broadly to include both issues under Section 3730.304 and Section 3730.307.

Third, the Department agrees with Interveners' legal position that Illinois law requires Lake Michigan water allocation permittees to implement conservation practices.²³ As discussed fully in section IV.f.ii.B. herein, the applicable Illinois law on this issue is the Level of Lake Michigan Act (615 ILCS 50) which authorizes the Department to create a Lake Michigan Water Allocation Program pursuant to administrative rule. The Department's Allocation of Water from

decisions." (Contested Issues Prehearing Order, p. 5) (emphasis added)

²³Due to the Department's agreement with Interveners' legal position, the Department concludes it unnecessary to address Interveners' specific arguments attempting to convince the Department of said position. The Department's conclusions of law providing its rationale for agreement with Interveners' legal position is set forth in section

Lake Michigan administrative rule (17 Ill. Adm. Code 3730) sets forth the Department's Water Allocation Program. Pursuant to Rule Section 3730.301(b) and Section 3730.307, implementation of conservation practices is required as a condition of Petitioner's permit. The conservation practices required to be implemented are those specified by Section 3730.307 as applicable to Petitioner's user category. Here, as a direct diversion user, the required conservation practice for Petitioner is set forth in Section 3730.307(c)(10): "Installation of facilities and implementation of programs to reduce to a reasonable minimum, and to accurately account for, water used for navigational and discretionary purposes."

However, as also discussed in section IV.f.ii.B., the Rule's requirement for permittees to implement conservation practices does not provide for the consideration of Interveners' Requested Conservation Measures in this permit modification proceeding, whether under Section 3730.304 or Section 3730.307. The Rule does not provide for the consideration of conservation practices on a Case By Case Determination Approach basis for either permit application proceedings or permit modification proceedings. (See, Sections 3730.301(b) and 3730.307) Further, the Rule does not provide for conservation measures to be taken into account for determining water needs in permit modification proceedings. (See, Sections 3730.304 and 3730.310) Therefore, Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this proceeding. Interveners' argument provides no basis for overturning the Contested Issues Prehearing Order ruling or subsequent rulings on Interveners' Requested Conservation Measures contested issues.

Interveners also object to the Hearing Officer's rulings on the basis that "[t]he conservation practices requested by IDNR and Interveners can be granted on the current record because it is uncontested that conservation practices could reduce the need for the discretionary diversion." (Interveners' Brief, p. 38) Interveners' argument is that, irrespective of the Contested Issues Prehearing Order ruling against Interveners' Requested Conservation Measures contested issues, sufficient evidence is still provided in the record showing that Petitioner will need discretionary diversion and, therefore, Interveners' Requested Conservation Measures must be considered in this proceeding.

The Department concludes that Interveners' argument is incorrect. As previously discussed, the Rule does not provide for consideration of any of Interveners' Requested Conservation Measures in this permit modification proceeding, whether under Section 3730.304 or Section 3730.307. The Rule does not provide for the consideration of conservation practices on a Case By Case Determination Approach basis for either permit application proceedings or permit modification proceedings. (See, Sections 3730.301(b) and 3730.307) Further, the Rule does not provide for conservation measures to be taken into account for determining water needs in permit modification proceedings. (See, Sections 3730.304 and 3730.310) Therefore, Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this proceeding, irrespective of what the evidence in the record of this proceeding includes. Interveners' argument provides no basis for overturning the Contested Issues Prehearing Order ruling or subsequent rulings on Interveners' Requested Conservation Measures contested issues.

E. Petitioner's Post-Hearing Legal Arguments

In response to Interveners' legal arguments, Petitioner provided the following legal arguments opposing Interveners' Requested Conservation Measures. First, Petitioner argues that "Interveners' request for the study and imposition of 'conservation practices' violates the Hearing Officer's May 14, 2015 Order in this case." (Petitioner's Response Brief, p. 17) Petitioner additionally argues that Interveners failed to file a Motion to Reconsider the Contested Issues Prehearing Order ruling that Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this proceeding, that the time period for asserting arguments on this issue has passed and that Interveners have waived their opportunity to contest the Contested Issues Prehearing Order. (Petitioner's Response Brief, pp. 19-20)

In reply, Interveners argue that they took appropriate steps to contest the Hearing Officer's Contested Issues Prehearing Order during this proceeding, including in their position statement filed after said ruling and their Prehearing Memorandum filed before the hearing in this proceeding. (Interveners' Reply to Petitioner's Arguments, pp. 2-3) Further, Interveners argue that pursuant to Section 3730.214, the final decision on the matters of this proceeding is for

the Department's Director, and that the Hearing Officer only presents a recommended order to the Director. (Intervenors' Reply to Petitioner's Arguments, p. 4)

Petitioner is correct that Intervenors' Requested Conservation Measures contested issues were presented previously during the prehearing phase of this proceeding and ruled upon by the Hearing Officer in the Contested Issues Prehearing Order. However, throughout this proceeding, Intervenors have maintained their position that the Hearing Officer's Contested Issues Prehearing Order determination was in error and, now, request that this issue be decided by the Department through its Director in this Final Administrative Decision. Intervenors' have not waived their opportunity to contest the Hearing Officer's rulings in the Contested Issues Prehearing Order. Intervenors' ability to contest the Hearing Officer's rulings in the Contested Issues Prehearing Order is also consistent with Rule Section 3730.214, which provides that the Department Director, rather than the Hearing Officer, makes final administrative decisions on Lake Michigan water allocation proceedings. Finally, Intervenors' opportunity to contest the Hearing Officer's rulings in the Contested Issues Prehearing Order was previously recognized by the Hearing Officer:

Additionally, the Department notes that the procedure set forth in the Rule for adjudication of this proceeding provides a further factor to take into account in this determination on Petitioner's Motion to Strike. Section 3730.214 of the Rule provides that a Hearing Officer does not make the final decision on this proceeding, rather the Director of the Department of Natural Resources makes the final decision on this proceeding: "The Hearing Officer's findings and recommended order shall be presented to the Director for his approval. The Director may issue the recommended order as his own or he may modify the recommended order or reconsider the order or order a rehearing." For the Director to properly make the ultimate decision on this proceeding, it is the Hearing Officer's responsibility to produce accurate and appropriate findings and recommended order, which includes the development of a full and fair record. In this case, a full and fair record would include addressing Intervener's requested inclusion of Intervenors' Additional Issues.

.... Should the Director make a subsequent determination, contrary to the determination of the Contested Issues Prehearing Order, that Intervenors' Additional Issues are appropriately available to be contested in this proceeding, the Department will reopen the proceeding to allow for the appropriate litigation of said issues. This approach also results in a full and fair record on the issue of Intervener's requested inclusion of Intervenors' Additional Issues and provides the Director the ability to determine from the record the

correctness of the Contested Issues Prehearing Order ruling and the prejudice caused by same, if any. (Prehearing Order Ruling Upon Petitioner's Emergency Motion to Strike Interveners' Prehearing Memorandum and Testimony, pp. 5-6)

Based on the foregoing, Interveners have properly requested that the Hearing Officer's rulings on Interveners' Requested Conservation Measures contested issues be decided by the Department through its Director in this Final Administrative Decision.

Second, Petitioner argues that "'Conservation practices' are not relevant to this proceeding." (Petitioner's Response Brief, p. 21) Petitioner argues that Interveners' reliance on Section 3730.304 as the substantive basis for Interveners' Requested Conservation Measures contested issues is misplaced as Section 3730.304 applies to "applicants" rather than "permittees" and Section 3730.310 does not require consideration of the factors set forth in Section 3730.304 in permit modification proceedings. (Petitioner's Response Brief, p. 22) Petitioner next argues that Interveners' reliance on Section 3730.307 is similarly misplaced as Section 3730.301(b), which contains a reference to Section 3730.307, refers to "applicants" rather than "permittees" and Petitioner's "existing allocation permit does not impose any of the conservation practices set forth in Section 307." (Petitioner's Response Brief, pp. 22-23)

Petitioner is correct regarding its arguments interpreting Section 3730.304. As previously discussed, the Rule does not provide for conservation measures to be taken into account for determining water needs in permit modification proceedings pursuant to Section 3730.304. Therefore, Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this proceeding pursuant to Section 3730.304.

Petitioner is not correct regarding its arguments interpreting Section 3730.307. Section 3730.301(b), which references Section 3730.307, does not somehow limit Section 3730.307 only to permit applicants. First, Section 3730.301(b) states that allocation "permits" shall be conditioned to require conservation practices pursuant to Section 3730.307. It is self-evident that permittees hold permits; applicants do not hold permits. Therefore, Section 3730.301(b) is not limited to applicants and does not limit Section 3730.307 to applicants. Second, as discussed previously, Sections 3730.301(b) and 3730.307 provide for no exceptions to the conservation practices permit condition requirement generally and Section 3730.310 provides for no exception

to conservation practices requirements for permits that have been modified specifically. Modified permits are still permits. Therefore, Section 3730.301(b) requires all allocation permits, original or modified, to be conditioned to require Section 3730.307 conservation practices, including Petitioner's allocation permit as currently modified and after it is modified again pursuant to this proceeding. Third, Petitioner's argument disregards the language of Section 3730.307 itself, which clearly applies its conservation practices permit conditions to "permittees" and not to "applicants." (See, Section 3730.307 (a), (b), (c), (d), (e) and (f)) While Petitioner is incorrect in its interpretation that Section 3730.307 conservation practices do not apply to permittees, this does not result in the applicability of Section 3730.307 to this proceeding. As discussed previously, Section 3730.307 does not provide for the consideration of conservation practices on a Case By Case Determination Approach basis for either permit application proceedings or permit modification proceedings. Therefore, Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this proceeding pursuant to Section 3730.307.

Petitioner is also incorrect in its apparent position that its existing allocation permit does not impose any of the conservation practices set forth in Section 3730.307. First, Sections 3730.301(b) and 3730.307 are mandatory in requiring the Department to condition allocation permits to require applicable conservation practices. Section 3730.301(b) states: "... The permit shall state the allocation the applicant is allowed, the starting date and duration of the permitted allocation, and such conditions as specified in Sections 3730.307 and 3730.309 ..." (emphasis added) Section 3730.307(a) states: "The Department shall condition allocations within a user category upon required conservation practices for each user category as specified in subsections (b) and (c)." (emphasis added) As such, these provisions of the Rule mandate compliance with Section 3730.307, irrespective of the inclusion of permit condition language into an allocation permit specifically requiring same. Second, Petitioner's allocation permit was issued pursuant to Department Decision for proceeding LMO-80-4 (Consolidated), which included language requiring compliance with the Rule's conservation practices: "6. Each permittee in Category IB and Category IIA shall comply with Section 820.307(c)(9) [predecessor to renumbered Section 3730.307(c)(10)] of the Rules." (Department Decision LMO-80-4 (Consolidated), p. 60)

(bracketed explanatory text added) Petitioner's permit modification made pursuant to Department Decision for proceeding LMO 00-01 did not remove said conservation practices permit condition. As a result, Petitioner's existing allocation permit is specifically conditioned on compliance with Section 3730.307(c)(10) conservation practices requirement. Therefore, based on the foregoing, Petitioner's existing allocation permit is conditioned upon the applicable conservation practices set forth in Section 3730.307.

Third, Petitioner next argues that "[t]he [Department's] allocation permit cannot regulate the discharge from [Petitioner's] wastewater treatment plants via 'conservation' conditions because IEPA has primary jurisdiction over this area of regulation." (Petitioner's Response Brief, p. 24) Petitioner argues that IEPA has primary jurisdiction over waste water discharges pursuant to the Illinois Environmental Protection Act (415 ILCS 5), IEPA regulates Petitioner's discharges through NPDES permits (415 ILCS 5/12, 39) and the Department possesses no such authority to regulate Petitioner's waste water discharges via diversion allocation permit. (Petitioner's Response Brief, pp. 24-28)

In reply, Interveners first observe that Petitioner's argument assumes a conflict between the Environmental Protection Act and the Level of Lake Michigan Act, which are co-equal laws of the State of Illinois. Interveners argue that the Level of Lake Michigan Act governs allocations from Lake Michigan, that the Department has the statutory duty to implement its Act irrespective of whether another agency has other statutory authority that also applies to a situation, and that "[n]one of the cases cited by MWRD suggest that a state agency should fail to exercise powers that are specifically given to it because they relate to activities that [are] also regulated by another state agency." (Interveners' Reply to Petitioner's Arguments, pp. 6-8)

Petitioner is correct that IEPA has primary jurisdiction over Petitioner's waste water discharges pursuant to the Illinois Environmental Protection Act and that IEPA regulates Petitioner's discharges through Petitioner's NPDES permit. However, as Interveners note, the Department has primary jurisdiction over Petitioner's use of Lake Michigan water pursuant to the Level of Lake Michigan Act and that the Department has the statutory duty to regulate Petitioner's use of Lake Michigan water irrespective of whether another agency has other statutory authority that also applies to Petitioner's water use situation. Therefore, the Department

concludes that Illinois law provides for IEPA to regulate Petitioner's waste water discharge pursuant to the Illinois Environmental Protection Act and for the Department to regulate Petitioner's Lake Michigan water use pursuant to the Level of Lake Michigan Act. As Petitioner fails to identify which of Interveners' Requested Conservation Measures it alleges are beyond the appropriate jurisdiction of the Department's regulation pursuant to the Level of Lake Michigan Act, the Department declines to issue further ruling on this matter. Additionally, even assuming Petitioner had identified the requested conservation measures complained of, the Department would not rule on this matter based on the Department's rulings that Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this permit modification proceeding. The result of the Department's rulings is that the issue of whether Interveners' Requested Conservation Measures are beyond the appropriate jurisdiction of the Department's regulation pursuant to the Level of Lake Michigan Act is not relevant to this proceeding.

Fourth, Petitioner argues that "Interveners' attempt to impose 'conservation' conditions on the District is an impermissible collateral attack on the IEPA's NPDES permits and corresponding consent decree." (Petitioner's Response Brief, p. 28) Petitioner argues that two of Interveners' requested conservation measures, implementation of enhanced wastewater treatment and utilization of green infrastructure technology, have been the subject of previous litigation between Petitioner and Interveners over Petitioner's NPDES permits and over Petitioner's environmental consent decree administratively before the Pollution Control Board and judicially before state and federal courts and that Petitioner has thus far legally prevailed. (Petitioner's Response Brief, pp. 28-30) Thus, Petitioner argues that Interveners' attempt to obtain the same actions from Petitioner in this Lake Michigan water allocation proceeding is an impermissible collateral attack on Petitioner's previously litigated NPDES permit and environmental consent decree. (Petitioner's Response Brief, pp. 30-31) (case citations omitted)

In reply, Interveners argue that Interveners' requested conservation measures do not seek to prohibit Petitioner from taking actions permitted under Petitioner's NPDES permits. (Interveners' Reply to Petitioner's Arguments, p. 6)

Initially, the Department notes that it is impossible to determine whether Petitioner's or Interveners' assertions are true, as neither party cites to the record of this proceeding or analyzes Petitioner's NPDES permits or environmental consent decree. However, consistent with Petitioner's preceding argument, even assuming the parties had identified and analyzed Petitioner's NPDES permits and environmental consent decree, the Department would not rule on this matter based on the Department's rulings that Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this permit modification proceeding. The result of the Department's rulings is that the issue of whether Interveners' Requested Conservation Measures are an impermissible collateral attack on Petitioner's NPDES permits and corresponding consent decree is not relevant to this proceeding.

Fifth, Petitioner argues that "Federal law preempts DNR from imposing the 'conservation' conditions sought by Interveners." (Petitioner's Response Brief, p. 31) Petitioner argues that "[the Department] is preempted from regulating the discharges of wastewater treatment plants outside the framework of the NPDES permit program because doing so interferes with the methods by which the Clean Water Act was designed to reach its goals. *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 494 (1987)." (Petitioner's Response Brief, p. 31) Thus, the Department should deny all Interveners' attempts at requiring any conservation measures in this proceeding. ." (Petitioner's Response Brief, p. 32)

In reply, Interveners argue that *Int'l Paper Co. v. Ouellette* does not, in fact, support Petitioner's argument that the Department is preempted from regulating the discharges of wastewater treatment plants outside the framework of the NPDES permit program because doing so would interfere with the federal Clean Water Act. (Interveners' Reply to Petitioner's Arguments, pp. 9-10)

Petitioner's argument fails on grounds more fundamental than the proper application of *Int'l Paper Co. v. Ouellette*. First, the Department in this proceeding has only the authority set forth in the Level of Lake Michigan Act, which does not provide authority to declare the Level of Lake Michigan Act preempted by federal statute. See, *Delgado v. Board of Election Com'rs of City of Chicago*, 224 Ill. 2d 481, 485 (2007):

As a creature of statute, the Election Board possesses only those powers conferred upon it by

law. Any power or authority it exercises must find its source within the law pursuant to which it was created. Under section 10–10 of the Election Code (10 ILCS 5/10–10 (West 2004)), an election board's scope of inquiry with respect to objections to nomination papers is limited to ascertaining whether those papers comply with the provisions of the Election Code governing such papers. See *Nader v. Illinois State Board of Elections*, 354 Ill.App.3d 335, 340, 289 Ill. Dec. 348, 819 N.E.2d 1148 (2004). Administrative agencies such as the Election Board have no authority to declare a statute unconstitutional or even to question its validity. *Texaco–Cities Service Pipeline Co. v. McGaw*, 182 Ill.2d 262, 278, 230 Ill. Dec. 991, 695 N.E.2d 481 (1998); see *Wiseman v. Elward*, 5 Ill.App.3d 249, 257, 283 N.E.2d 282 (1972). In ruling as it did, the Election Board therefore clearly exceeded its authority.

Any action or decision taken by an administrative agency in excess of or contrary to its authority is void. *Alvarado v. Industrial Commission*, 216 Ill.2d 547, 553–54, 297 Ill. Dec. 458, 837 N.E.2d 909 (2005); see *Citizens to Elect Collins v. Illinois State Board of Elections*, 366 Ill.App.3d 993, 998, 304 Ill.Dec. 521, 853 N.E.2d 53 (2006).

The Department has the statutory authority to regulate the use of Lake Michigan water pursuant to the Level of Lake Michigan Act Water Allocation Program. The Department does not have the statutory authority to invalidate or declare the Level of Lake Michigan Act preempted by federal statute. Therefore, the Department declines to rule on Petitioner's federal preemption arguments based upon *Int'l Paper Co. v. Ouellette*.

Second, based on the Department's rulings that Interveners' Requested Conservation Measures contested issues are not appropriately available to be contested in this permit modification proceeding, the issue of whether Interveners' Requested Conservation Measures are preempted by the federal Clean Water Act is not relevant to this proceeding.

F. Department Staff's Requested Conservation Measures

Department Staff also requests Petitioner's allocation permit be conditioned to require Petitioner to consider and implement Requested Conservation Measures. Department Staff's request cited Section 3730.307(c)(10), (Direct Testimony of Daniel Injerd, p. 4) Department Staff provided no analysis or legal argument to support the citation of Section 3730.307(c)(10) as applicable to this proceeding.

As previously discussed, Section 3730.307 does not provide for the consideration of conservation practices on a Case By Case Determination Approach basis for either permit

application proceedings or permit modification proceedings. Therefore, Department Staff's Requested Conservation Measures are not appropriately available to be contested in this proceeding pursuant to Section 3730.307.

The Department notes, however, that this ruling does not preclude Department Staff from proceeding pursuant to Section 3730.307 regarding requested conservation measures. Section 3730.307(c)(10) requires Petitioner to implement the following conservation practice: "Installation of facilities and implementation of programs to reduce to a reasonable minimum, and to accurately account for, water used for navigational and discretionary purposes." The Rule authorizes Department Staff to work cooperatively with Petitioner regarding Petitioner's compliance with Section 3730.307(c)(10) required conservation practices standard. Should Department Staff determine Petitioner's conservation practices fail to meet the Section 3730.307(c)(10) required conservation practices standard, the Rule authorizes Department Staff to issue a notice of violation pursuant to Section 3730.301(d) and to commence an enforcement proceeding pursuant to Section 3730.202(b). Alternatively, the Department has the option to institute a rulemaking to amend Section 3730.307 to include specific conservation practices for Petitioner to implement, similar to the conservation practice requirements for domestic water user permittees.

G. Determination

Based on the foregoing, the Department determines not to condition Petitioner's allocation permit in this proceeding to require Petitioner to consider and implement Interveners' or Department Staff's Requested Conservation Measures. Petitioner's allocation permit will be conditioned to require Petitioner to comply with all applicable conservation practices set forth in Section 3730.307.

iii. Requested Permit Conditions Requiring Information Reporting

Department Staff has requested the Department to condition Petitioner's allocation permit in this proceeding to require Petitioner to provide certain information reporting to the Department ("Requested Information Reporting"). No other party has requested Petitioner's

allocation permit be conditioned to require information reporting.

Department Staff's position regarding Requested Information Reporting is as follows:

The Department also requests that the order include a requirement that the District maintain all lakefront sluice gates and structures under its jurisdiction to reduce leakage, maintain the accuracy of reported discretionary diversion flows, and complete and implement the optimization report as described in Dr. Melching's testimony. The Department requests that the District submit an annual report documenting its activities, including a description of any corrective actions taken, to the Department. (Direct Testimony of Daniel Injerd, p. 6) (emphasis added)

Department Staff cited no Rule provision to provide authority for requesting the foregoing Requested Information Reporting permit condition.

Petitioner provided no position on Department Staff's Requested Information Reporting.

Rule Section 3730.309 Reporting Requirements sets forth reporting requirements for Water Allocation Program permittees. Similarly to Section 3730.307 Conservation Practices, Section 3730.301(b) mandates the requirements specified in Section 3730.309 as permit conditions: : "The permit shall state the allocation the applicant is allowed, the starting date and duration of the permitted allocation, and such conditions as specified in Sections 3730.307 [Conservation Practices and Other Permit Conditions] and 3730.309 [Reporting Requirements] as the Department may require the applicant to comply with in order to receive or to continue to receive its allocated share of the Lake Michigan diversion." (emphasis added) (bracketed explanatory text added) Also, similarly to Section 3730.307, Section 3730.309 sets forth a type of Permit Condition Approach by listing the specific information required to be reported by permittees. However, Section 3730.309(a), in addition to listing the specific information required to be reported, also requires permittees to report "such other information relevant to the Lake Michigan allocation as the Department may require..." As there is no specified procedure for the Department to make required information requests pursuant to Section 3730.309(a), Department Staff is not precluded from making its required information request in this proceeding. Therefore, Department Staff's Requested Information Reporting permit condition is appropriately considered in this proceeding. Further, the Department finds that Department Staff's Requested Information Reporting is "relevant to [Petitioner's] Lake Michigan allocation." Therefore, Department Staff's Requested Information Reporting meets the substantive requirement for

Department information requests pursuant to Section 3730.309(a).

Based on the foregoing, the Department determines to condition Petitioner's allocation permit in this proceeding to require Petitioner to provide information reporting to the Department on Department Staff's Requested Information Reporting. Petitioner's allocation permit will be conditioned to require Petitioner to comply with all applicable reporting requirements set forth in Section 3730.309 and to report, including a description of any corrective actions taken, on its activities: (1) to maintain all lakefront sluice gates and structures under Petitioner's jurisdiction to reduce leakage, (2) to maintain the accuracy of Petitioner's reported discretionary diversion flows, and (3) to complete and implement the optimization modeling and plan for discretionary diversion use referenced in the record of this proceeding.

iv. Requested Permit Term Reserving the Right of Future Petitions For Modification

Department Staff takes the position of "... no objection to the District's request to reserve the right to petition for a modification of their allocation should a change in circumstances at any point in the future warrant such a request." (Direct Testimony of Daniel Injerd, p. 6) This request does not appear to be specifically included in Petitioner's post-hearing briefs. (Petitioner's Brief in Support, p. 31; Petitioner's Response Brief, pp. 32-33)

Irrespective of the status of such a request in this proceeding, the issue of permittee's ability to bring petitions for permit modification is specifically addressed by Rule Section 3730.310(a):

- a) Petitions for modification of an allocation permit may be filed by any entity at any time. Petitions for modification must comply with Section 3730.204(c). If the Department finds that any such petition is supported by an adequate statement of reasons, is not plainly devoid of merit or frivolous, and does not deal with a subject on which a hearing has been held within the preceding six months, a hearing shall be held pursuant to Sections 3730.201 through 3730.215. ...

The Department concludes that Petitioner has all of the ability to file a future petition for permit modification provided by the Rule. As such, it is unnecessary to include a specific reservation of right for Petitioner to file a future petition for permit modification. Further, the Department declines to specify a right for Petitioner to file a future petition for permit

modification that might be interpreted differently from its ability to file a future petition for permit modification provided by the Rule. Therefore, the Department determines not to include a permit term reserving Petitioner the right to petition for a modification of their allocation in the future.

v. Current Additional Permit Terms

Petitioner's current allocation permit includes two terms in addition to the yearly discretionary diversion amounts addressed above. First, Petitioner's current allocation permit includes an allocation for the diversion component of navigation makeup. Navigation makeup is water that is diverted into the CAWS to bring water levels back up to adequate pool stage for navigation purposes in circumstances where the pool stage was lowered to provide flood water storage in anticipation of a significant rainfall event and the rainfall event does not occur as predicted. The yearly allocation for navigation makeup in Petitioner's current allocation permit is 35 cfs. (Department Decision LMO 00-01, p. 2) Petitioner expressly excluded its allocation for navigation makeup from its petition for modification: "The District does not seek to modify the portion of that allocation related to navigability in this Petition; rather, the District solely request that the State modify the amount of discretionary diversion allocated for maintaining the water quality of the CAWS." (Petition, p. 3) No parties identified the navigation makeup component of Petitioner's allocation permit as a contested issue in this case, nor did any party take a position on or argue this issue in this proceeding. Therefore, the Department determines that Petitioner's current navigation makeup diversion component is not modified in this proceeding and Petitioner's navigation makeup diversion component will continue at the current 35 cfs amount in Petitioner's permit as modified pursuant to this proceeding.

Second, Petitioner's current allocation permit includes for a "banking" approach to Petitioner's water diversion. This banking approach is explained as follows:

... The District will be allowed to "bank" unused water from these two categories for future use as long as it does not exceed a running average over a five year period of the allocation limits. (Department Decision LMO 00-01, p. 2)

Petitioner did not address this permit term. Department Staff addressed this permit term

as follows:

The Department recommends that the “banking” approach as allowed in LMO 00-01 be continued. We note that the purpose is to provide the District the opportunity to conserve Lake Michigan water when it is not needed, and to have a reserve available should there be a short term need to increase diversion. (Direct Testimony of Daniel Injerd, p. 5)

No parties identified the banking approach term of Petitioner’s allocation permit as a contested issue in this case, nor did any party take a position on or argue this issue in this proceeding. Therefore, the Department determines that the banking approach term of Petitioner’s allocation permit is not modified in this proceeding and the banking approach term of Petitioner’s allocation permit will continue in Petitioner’s permit as modified pursuant to this proceeding.

V. Petitions for Reconsideration or Rehearing and Judicial Review

Section 3730.214 Order of Hearing Officer or Director states in part: “... Any party may petition the Director for reconsideration or for a rehearing within 30 days of the issuance of the Director’s order.”

Section 3730.401 Administrative Review states: “All final administrative orders of the Director except those orders which deal with rulemaking shall be subject to judicial review pursuant to the Administrative Review Law [735 ILCS 5/Art. III] by filing a complaint and causing the issuance of summons on the Director and on each of the other defendants within 35 days from the date that a copy of such order sought to be reviewed was served.”

ORDER

Metropolitan Water Reclamation District of Greater Chicago's Lake Michigan Water Allocation Permit is modified to the following amounts, terms and conditions set forth below:

1. Metropolitan Water Reclamation District of Greater Chicago's Lake Michigan Water Allocation Permit is modified to the amounts set forth as follows. All allocation quantities are shown in cubic feet per second.

<u>Water Year</u>	<u>Discretionary Diversion</u>	<u>Navigation Makeup</u>
2016	270	35
2017	270	35
2018	220	35
2019	220	35
2020	220	35
2021	220	35
2022	220	35
2023	220	35
2024	220	35
2025	220	35
2026	220	35
2027	220	35
2028	220	35
2029	220	35
2030	220	35
2031	101	35
2032	101	35
2033	101	35
2034	101	35
2035	101	35

2. As a Lake Michigan Water Allocation Permittee, Metropolitan Water Reclamation District of Greater Chicago is required to comply with the Department's Administrative Rule for the Allocation of Water from Lake Michigan.

3. Metropolitan Water Reclamation District of Greater Chicago will complete all water conservation practices mandated by Section 3703.307 of the Department's Administrative Rule for

the Allocation of Water from Lake Michigan.

4. Metropolitan Water Reclamation District of Greater Chicago will complete all reporting requirements mandated by Section 3730.309 of the Department's Administrative Rule for the Allocation of Water from Lake Michigan. Additionally, Metropolitan Water Reclamation District of Greater Chicago will report, including a description of any corrective actions taken, on its activities: (1) to maintain all lakefront sluice gates and structures under Petitioner's jurisdiction to reduce leakage, (2) to maintain the accuracy of Petitioner's reported discretionary diversion flows, and (3) to complete and implement the optimization modeling and plan for discretionary diversion use referenced in the record of this proceeding.

5. Metropolitan Water Reclamation District of Greater Chicago will be allowed to "bank" unused water from the Discretionary Diversion and Navigation Makeup categories for future use as long as it does not exceed a running average over a five year period of the combined allocation limits.

6. This Decision on a Petition for Modification of a Lake Michigan Water Allocation Permit by the Metropolitan Water Reclamation District of Greater Chicago for a Lake Michigan Water Allocation constitutes the Illinois Department of Natural Resources' Final Administrative Decision within the meaning of the Administrative Review Law (735 ILCS 5/3-101 et seq.), is appealable to Circuit Court pursuant to the Administrative Review Law and shall be effective as of the date set forth below.

RECOMMENDED:

Robert G. Mool

Robert G. Mool
Hearing Officer

APPROVED:

Wayne A. Rosenthal

Wayne A. Rosenthal
Director
Illinois Department of Natural Resources

Dated this 22nd day of September, 2016.

**STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES**

IN THE MATTER OF)	
)	
PETITION FOR MODIFICATION OF)	
LAKE MICHIGAN WATER)	
ALLOCATION FOR METROPOLITAN)	No. LMO-14-5
WATER RECLAMATION DISTRICT)	
OF GREATER CHICAGO)	

PROOF OF SERVICE

I hereby certify that the foregoing **Final Administrative Decision** was served by electronic mail to the following on this, the 22nd day of September, 2016:

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