

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

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

**NOTICE OF FILING**

To: ALL COUNSEL OF RECORD  
(Service List Attached)

**PLEASE TAKE NOTICE** that on the 10th day of November, 2011, I electronically filed with the Office of the Clerk of the Illinois Pollution Control Board, **Metropolitan Water Reclamation District of Greater Chicago's Final Comments on the Proposed Effluent Bacteria Standards.**

Dated: November 10, 2011.

**METROPOLITAN WATER RECLAMATION  
DISTRICT OF GREATER CHICAGO**

By: /s/ Fredric P. Andes  
One of Its Attorneys

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**PROOF OF SERVICE**

The undersigned attorney certifies, under penalties of perjury pursuant to 735 ILCS 5/1-109, that I caused a copy of the foregoing, **Notice of Filing and Metropolitan Water Reclamation District of Greater Chicago's Final Comments on the Proposed Effluent Bacteria Standards**, to be served via First Class Mail, postage prepaid, from One North Wacker Drive, Chicago, Illinois, on the 10th day of November, 2011, upon the attorneys of record on the attached Service List.

*/s/ David T. Ballard*

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**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF: )  
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WATER QUALITY STANDARDS AND ) R08-09  
EFFLUENT LIMITATIONS FOR THE ) (Rulemaking – Water)  
CHICAGO AREA WATERWAY SYSTEM )  
AND LOWER DES PLAINES RIVER ) Subdocket B  
PROPOSED AMENDMENTS TO 35 ILL. )  
ADM. CODE 301, 302, 303, AND 304 )

**METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO'S  
FINAL COMMENTS ON THE PROPOSED EFFLUENT BACTERIA STANDARDS**

On July 7, 2011, the Board issued an Opinion and Order (“Opinion”) in which it addressed the standards necessary to protect the recreation use designations for reaches of the Chicago Area Waterways System (“CAWS”) and whether or not water quality standards or effluent limitations are necessary to protect the designated recreational uses. Opinion and Order of the Board, July 7, 2011 (cited herein as “Op.”). The Board also addressed the economic reasonableness and technical feasibility of the proposed standards and effluent limitations. In its Opinion, the Board decided a number of issues and asked for additional comments on others.

Since the Board issued its Opinion, the District has worked with the other stakeholders in this matter in an effort to cooperatively resolve the remaining open issues so that a joint recommendation could be made to the Board. The parties have made substantial progress in this regard and have agreed upon all but one of the open issues in this Subdocket B. A *Joint Statement of Principles* (“Joint Statement”), which reflects the shared recommendations by the stakeholders regarding these open issues, is being filed separately with the Board today, and is hereby incorporated by reference into these comments.

Although the stakeholders have reached an agreement on the majority of remaining issues, the rationale for supporting the Joint Statement necessarily differs for each party. Therefore, the District is filing these comments to explain its positions on the issues discussed in the Joint Statement. In addition, the District is submitting its comments concerning the one issue on which the stakeholders have not reached an agreement: the appropriate timeframe during the calendar year that the District should be required to disinfect its effluent at its North Side and Calumet facilities.

**I. Comments on Unresolved Issues**

**A. The Specific Months that the District Should be Required to Disinfect its Effluent at its North Side and Calumet Facilities**

The District has not reached an agreement with the other stakeholders in this matter concerning the appropriate timeframe during the calendar year that the District should be required to disinfect its effluent at its North Side and Calumet facilities. The District, therefore, is submitting its comments on this issue.

The District's North Side and Calumet facilities are located on Primary Contact Recreation Waters. The parties have agreed, as discussed above, that the numeric bacteria standards which apply to General Use Waters in Illinois should apply to Primary Contact Recreation Waters. The General Use standards provide:

Section 302.209      Fecal Coliform

- a) During the months *May through October*, based on a minimum of five samples taken over not more than a 30 day period, fecal coliform (STORET number 31616) shall not exceed a geometric mean of 200 per 100 ml, nor shall more than 10% of the samples during any 30 day period exceed 400 per 100 ml in protected waters. Protected waters are defined as waters which, due to natural characteristics, aesthetic value or environmental significance are deserving of protection from pathogenic organisms. Protected waters will meet one or both of the following conditions:

- 1) presently support or have the physical characteristics to support *primary contact*;
- 2) flow through or adjacent to parks or residential areas.

Ill Adm. Code § 302.209 (emphasis added). The Joint Statement reflects the agreement among the parties that these same levels should be adopted for the Primary Contact Recreation Waters, but does not specify the time period during which the standards would apply. The current regulation for General Use Waters makes clear that the applicable timeframe during the calendar year for bacteria monitoring and compliance with applicable standards is May through October. These months cover the recreation season, including both early and late-season participants. The District's position, therefore, is that it is both reasonable and consistent with relevant Illinois regulations that it only be required to perform disinfection at the North Side and Calumet facilities in May through October of each year.

The environmental groups and IEPA assert that disinfection should occur at the North Side and Calumet facilities in March through November of each year. They argue that recreation activities, including canoeing and kayaking, begin earlier and end later than the timeframe articulated in the regulation for Primary Contact Recreation Waters.

It is imperative to remember that the basis for disinfection in the first instance is the Primary Contact Recreation Waters designation. The Board mandated disinfection only for facilities located on Primary Contact Recreation Waters. Disinfection should therefore take place during the timeframe that the regulations have determined that primary contact is occurring. There is no evidence that significant groups of people are using these waters for primary contact activities during March, April, and November. Therefore, disinfection should

not be required during these months. Instead, the disinfection requirement at the Calumet and North Side facilities should only apply during the months of May through October.<sup>1</sup>

## **II. Comments on Issues in the Joint Statement of Principles**

### **A. Effective Date of the Proposed Effluent Limit**

In its Opinion, the Board discusses the disparate views of the parties regarding the date that compliance with the new effluent limit should be achieved. Op. at p 114.<sup>2</sup> The Board noted that testimony on this issue was provided nearly three years prior to the District amending its position and agreeing to implement disinfection at its North Side and Calumet facilities. Therefore, the Board requested that the parties update the record as to an appropriate compliance schedule. *Id.*

As explained in the Joint Statement, the District has agreed to complete the installation of disinfection equipment at the North Side and Calumet facilities by December 31, 2015. Attached hereto as Exhibit A is a letter regarding the four-phase plan approved by the District for the design and installation of the disinfection equipment with a start-up date targeted for December 2015. The disinfection requirements should then start at the beginning of the 2016 recreation season.

In light of the District's agreement to accelerate the design and installation of the disinfection equipment, as well as scale and complex nature of the project, the District requests that, as reflected in the Joint Statement, a *force majeure* or similar clause be incorporated into

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<sup>1</sup> For the same reasons, the water quality standards for the Primary Contact Recreation Waters should only apply from May through October. This issue is also discussed in Section II.C. below.

<sup>2</sup> As to the effluent limit itself, it is very important that the specific numerical effluent standards set forth in the Joint Statement (assuming that the Board decides to adopt them) need to be included in the rule itself, replacing the general 400 cfu/100 ml level that was originally proposed. This is needed in order to ensure that when the new effluent standards are included in permits, there is no question as to the legal status of those standards.

any deadline established for the commencement of disinfection at the North Side and Calumet facilities. The District will proceed in good faith to meet the deadline; however, various unforeseen circumstances could cause delays in any one of the four phases of the implementation plan. Accordingly, the District believes that it is fair and reasonable to include provisions that allow for adjustments to be made to the effective date of the proposed effluent limit under such circumstances. The *force majeure* provision should allow for extensions when delay is made necessary by circumstances beyond the discharger's reasonable control, including but not limited to: Acts of God; wars or insurrections; or failure of the discharger's suppliers, subcontractors or carriers to meet contractual performance obligations.<sup>3</sup>

**B. Disinfection Should Not be Required at the Stickney Facility**

As explained in the Joint Statement, the stakeholders have agreed that effluent disinfection should not be required at the Stickney facility at the present time. The Board itself determined that “the record for establishing an effluent standard for Incidental Contact Recreation is not as convincing as for Primary Contact Recreation” and it therefore declined to require the Stickney facility to meet an effluent discharge limit for bacteria. Op. at 155.

This conclusion by the Board is a reasonable one, and is supported by the scientific information that the District has provided during this rulemaking as to potential health effects from recreation in and on the CAWS, and evidence that the District has submitted as to the likely costs of disinfection at Stickney. Based on that information, it is logical to conclude that a bacterial effluent standard that would require disinfection at Stickney cannot be considered “necessary” to serve the purposes of the Illinois Environmental Protection Act.<sup>4</sup> In addition, the

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<sup>3</sup> The specific requirements that should be included in the rule's *force majeure* provision are set forth in the Joint Statement.

<sup>4</sup> 415 ILCS 5/11(b)

significant costs that would result from imposing a disinfection requirement on the Stickney facility are not reasonable—particularly when balanced against the lack of any public health benefit. A rule requiring disinfection at Stickney would therefore be unnecessary and economically unreasonable.<sup>5</sup>

The District has been supportive of efforts to investigate possible health issues associated with recreation in and on the CAWS. The research conducted by the District in support of the Illinois EPA rulemaking effort resulted in two major studies: the Dry and Wet Weather Risk Assessment of Human Health Impacts of Disinfection vs. Non-Disinfection of the Chicago Area Waterways System (the “Risk Assessment”); and the Chicago Health, Environmental Exposure, and Recreation Study (“CHEERS”). Reports from both efforts provide support that requiring disinfection at Stickney is unnecessary and unreasonable.

**(i) Microbial Risk Assessment Report**

The Risk Assessment was developed for the District by a team of nationally-recognized experts in risk assessment and bacterial human health effects, lead by Geosyntec.<sup>6</sup> The Risk Assessment concluded that low pathogen levels in the District plants’ effluents and in the CAWS downstream of those plants posed minimal risk for gastrointestinal illness associated with recreational use on the CAWS.<sup>7</sup> Pathogen levels were found to be generally low, and were associated with “a low probability of developing gastrointestinal illness, even for the most highly

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<sup>5</sup> The District incorporates by reference herein its comments filed on January 3, 2011 in Subdocket B (PC #567).

<sup>6</sup> See Risk Assessment, at xiii; Pre-Filed Testimony of Tolson, at 1, Attachments 2-3 (Aug. 4, 2008); Pre-Filed Testimony of Gerba, at 1, Attachments 1-2 (Aug. 4, 2008); and Pre-Filed Testimony of Petropoulou, at 1, Attachments 2-3 (Aug. 4, 2008).

<sup>7</sup> Pre-Filed Testimony of Granato, at 4 (Aug. 4, 2008).

exposed recreational users in areas of the CAWS in close proximity to non-disinfected effluents from Stickney, Calumet and North Side plants.”<sup>8</sup>

In addition, it is important to emphasize that while the North Side and Calumet facilities discharge to Primary Contact Recreation Waters, the Stickney facility discharges to Incidental Contact Waters, thus making the Risk Assessment’s findings particularly relevant for Stickney.

**(ii) CHEERS Study**

CHEERS was the first epidemiological study of the health risks of fishing, boating, rowing and padding in the CAWS.<sup>9</sup> In fact, CHEERS was also the first comprehensive epidemiological study of secondary contact recreation conducted anywhere in the country.<sup>10</sup> Epidemiological studies provide an opportunity to directly measure rather than model risk.<sup>11</sup> For this reason, U.S. EPA places considerable weight on epidemiological studies when establishing environmental standards.<sup>12</sup>

The CHEERS Report was submitted to the Board on August 31, 2010.<sup>13</sup> The initial CHEERS Report presented findings on the rates of acute gastrointestinal and non-gastrointestinal illness attributable to CAWS recreation, and also identified the pathogens responsible for acute infections among recreators.<sup>14</sup> The CHEERS Report concluded that rates of gastrointestinal illness are not higher among CAWS recreators as compared to recreators participating in the

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<sup>8</sup> Pre-Filed Testimony of Tolson, at 7.

<sup>9</sup> CHEERS Report, at iv (Frequently Asked Questions about CHEERS (“FAQ”)) (filed with the Board on August 31, 2010); Pre-Filed Testimony of Granato, at 2-3 (Sept. 20, 2010); Pre-Filed Testimony of Dorevitch, at 2 (Sept. 20, 2010).

<sup>10</sup> Pre-Filed Testimony of Dorevitch, at 2 (Aug. 4, 2008).

<sup>11</sup> Pre-Filed Testimony of Dorevitch, at 3 (Sept. 20, 2010).

<sup>12</sup> *Id.*

<sup>13</sup> Pre-Filed Testimony of Granato, at 3 (Sept. 20, 2010); Pre-Filed Testimony of Dorevitch, at 3 (Sept. 20, 2010).

<sup>14</sup> Pre-Filed Testimony of Granato, at 3 (Sept. 20, 2010).

same activities on general use waters that do not receive undisinfected wastewater treatment plant effluent.<sup>15</sup> On CAWS waters, approximately 12-13 cases of gastrointestinal illness per 1,000 uses can be attributed to the types of incidental or non-contact recreational uses that are proposed for the CAWS.<sup>16</sup> This rate is statistically indistinguishable from the rate of gastrointestinal illness attributable to limited contact recreation on general use waters.<sup>17</sup> About 13-14 cases of gastrointestinal illness were attributed to recreators on non-CAWS waters.<sup>18</sup>

The CHEERS Report did include a statistically significant increase in the incidence of eye symptoms among CAWS recreators than those on general use waters, with an incidence rate of 15-16 cases per 1,000 uses.<sup>19</sup> The increased incidence of eye symptoms, however, was likely due to lower rates of hand washing among CAWS recreators who ate or drank.<sup>20</sup> Eye symptoms reportedly were very minor in most cases, generally not requiring any medication, or requiring only use of over-the-counter medications.<sup>21</sup> Other types of illness, including skin, ear, and

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<sup>15</sup> *Id.*; Pre-Filed Testimony of Dorevitch, at 6 (Sept. 20, 2010).

<sup>16</sup> CHEERS Report, at i (Abstract), ix (FAQ), xxxi (Executive Summary); Pre-Filed Testimony of Granato, at 3-4 (Sept. 20, 2010); Pre-Filed Testimony of Dorevitch, at 6 (Sept. 20, 2010). These findings are consistent with the Risk Assessment, which estimated a less than 8 in 1,000 risk of illness due to pathogens alone, rather than total risk associated with recreational activities due to pathogens and all other causes. Pre-Filed Testimony of Tolson, at 7; Oct. 19, 2010 Hearing, Testimony of Granato, at 254-55.

<sup>17</sup> CHEERS Report, at ix (FAQ), xxx (Executive Summary); Pre-Filed Testimony of Granato, at 3-4 (Sept. 20, 2010).

<sup>18</sup> CHEERS Report, at ii (Abstract), ix (FAQ), xxxi (Executive Summary).

<sup>19</sup> CHEERS Report, at i (Abstract), ix (FAQ); Pre-Filed Testimony of Dorevitch, at 6 (Sept. 20, 2010).

<sup>20</sup> Oct. 19, 2010 Hearing, Testimony of Dorevitch, at 196 (“If I restrict that analysis only to the people who ate or drank, then taking into account handwashing makes the difference between the CAWS group and the general use group disappear.”).

<sup>21</sup> CHEERS Report, at ix (FAQ); Pre-Filed Testimony of Granato, at 4 (Sept. 20, 2010); Pre-Filed Testimony of Dorevitch, at 6 (Sept. 20, 2010).

respiratory symptoms, were reported at similar rates for CAWS recreators, general use water recreators, and non-water recreators alike.<sup>22</sup>

The CHEERS Supplement quantified the relationship between water quality and health risk, by investigating the extent of any relationship between reported illness and various microbes.<sup>23</sup> Among CAWS recreators overall, there was *no* relationship between microbe concentration and occurrence of gastrointestinal illness.<sup>24</sup> In contrast, gastrointestinal illness for General Use water recreators could be predicted based on levels of enterococci.<sup>25</sup> For example, when enterococci levels were 250 cfu/100 mL, the rate of attributable gastrointestinal illness could be estimated at approximately 11 cases per 1,000 uses.<sup>26</sup>

The CHEERS Report makes it clear that disinfection is not necessary to support the Incidental Contact and other uses proposed for reaches of the CAWS that could be affected by discharges from the Stickney facility. Indeed, in declining to require disinfection at Stickney, the Board stated that the CHEERS study cannot be ignored. Op. at 115.

**(iii) Disinfection at Stickney is Not Economically Reasonable**

Disinfection at Stickney would require enormous capital and operational costs for the District. Dr. David Zenz, P.E. testified in detail concerning the projected costs of UV disinfection, which currently represents the most likely technological choice due to lower costs and lack of disinfection byproducts. Dr. Zenz pointed out that a UV disinfection system for the Stickney plant “could be one of the largest ever constructed in North America, and probably one

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<sup>22</sup> CHEERS Report, at i (Abstract), ii (Abstract), ix (FAQ).

<sup>23</sup> The CHEERS Supplement was filed with the Board on December 6, 2010.

<sup>24</sup> CHEERS Supplement, at iii, ES-18.

<sup>25</sup> *Id.* at ES-18.

<sup>26</sup> *Id.*

of the largest constructed in the entire world.” Op. at 45. According to Dr. Zenz, the 20-year present worth cost of implementing UV disinfection at Stickney is \$511.2 million. *Id.* This figure is greater than the projected cost of implementing disinfection at North Side and Calumet *combined* (\$408.4 million). Moreover, this cost estimate for Stickney is likely very conservative, representing the low end of the range of possible disinfection costs. Imposition of the exorbitant costs that would result from disinfection at Stickney would require extraordinary measures to approve funding, or could have significant adverse effects on the District’s ability to fund other initiatives.<sup>27</sup>

For all of the reasons stated above, requiring disinfection at Stickney is not appropriate, and such a requirement should not be adopted by the Board.

**C. General Use Standards Should be Applied to CAWS Primary Contact Recreation Waters**

As explained in the Joint Statement, the stakeholders have agreed that the bacteria standards at 35 Ill. Adm. Code § 302.209 that apply to General Use Waters should be applied to CAWS Primary Contact Recreation Waters. As noted by the Board in its Opinion, USEPA is both conducting research on whether bacterial indicator species is the best method to indicate the possible presence of human pathogens in the water and reevaluating risk assessment for primary human contact in waters. Op. at 112. USEPA is planning to publish new or revised recreational water quality criteria by October 2012 that address recreational waters. Given this uncertainty at the federal level, the District agrees with the Board and the other stakeholders that it makes sense to adopt the existing bacteria standards at Section 302.209 for Primary Contact Recreation

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<sup>27</sup> Pre-Filed Testimony of Mastracchio, at 5 (Aug. 4, 2008).

Waters at this time.<sup>28</sup> The District anticipates that the standards will be clarified when USEPA promulgates its new standards in 2012.

**D. There is No Basis to Apply Numeric Standards for Non-Primary Contact Waters**

As explained in the Joint Statement, the stakeholders have agreed that using numeric standards for the Incidental Contact Recreation Waters, or for other waters that are not designated for Primary Contact Recreation, is not appropriate at this time. The parties recognize that, in contrast to USEPA-recommended numeric standards for Primary Contact Recreation Waters, there is no federally recommended numeric standard for Incidental Contact Recreation Waters. On this issue, the Board declined to establish standards but invited IEPA to propose bacteria water quality standards for CAWS and LDPR that will be protective of Incidental Contact Recreation after USEPA provides guidance for drafting standards in 2012. Op. at 115. The District agrees with this approach assuming that IEPA develops a methodology with a scientific basis before proposing such standards. At this time, it is clear that there is simply not enough research, scientific support, or other evidence on which to base a numeric limit applicable to Incidental Contact Recreation Waters. In fact, the only available research is the CHEERS study which established that among CAWS recreators overall, there was *no* relationship between microbe concentration and occurrence of gastrointestinal illness. Op. at 67-68. Dr. Dorovitch testified at length concerning the study's methodology and results and Dr. Gorelick confirmed that the study was scientifically sound and the results were valid. *Supra* at pp. 7-10.

Accordingly, the science available on Incidental Contact Recreation Waters demonstrates that *no*

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<sup>28</sup> The Joint Statement does not specify when these standards should apply. The General Use standards that are applicable elsewhere in Illinois apply during the period of May through October, as discussed earlier in these comments, and the District believes that the standards for Primary Contact Recreation Waters should apply during that same time period.

cause and effect relationship exists between bacterial concentration and illness, and thus no numerical standard can be supported for Incidental Contact Recreation Waters at this time.

### **III. Conclusion**

The District and the other stakeholders in this matter have reached an agreement on the majority of open issues in this matter as discussed in the Joint Statement. The District has committed to completing installation of the disinfection equipment at North Side and Calumet by December 2015 with disinfection requirements to apply at the beginning of the 2016 recreation season. The parties and the Board are in agreement that disinfection should not be required at this time at the Stickney facility. This position is supported by the findings of the Risk Assessment and the CHEERS study, especially in light of the fact that Stickney discharges to Incidental Contact Waters and the costs of disinfection would be extraordinary. The parties have also agreed that the bacteria standards at 35 Ill. Adm. Code § 302.209 that apply to General Use Waters should be applied to CAWS Primary Contact Recreation Waters. The parties agree that applying numeric standards for the Incidental Contact Recreation Waters (and other waters that are not designated for Primary Contact Recreation) is not appropriate at this time. There is not enough scientific support for a particular numeric limit.

With respect to the one issue of disagreement, the District's position is that it is both reasonable and consistent with relevant Illinois regulations that it only be required to perform disinfection at the North Side and Calumet facilities in May through October of each year. There is no evidence that significant groups of people are using these waters for primary contact activities during March, April, and November. Therefore, disinfection should not be required during these months.

In sum, the District requests that the Board issue an opinion and order consistent with the agreements in the Joint Statement and take under consideration the District's comments concerning the appropriate months of disinfection for the North Side and Calumet facilities.

Dated: November 10, 2011

**METROPOLITAN WATER RECLAMATION  
DISTRICT OF GREATER CHICAGO**

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# Exhibit A



# Metropolitan Water Reclamation District of Greater Chicago

## Legislation Details (With Text)

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### TRANSMITTAL LETTER FOR BOARD MEETING OF SEPTEMBER 15, 2011

#### COMMITTEE ON ENGINEERING

Mr. David St. Pierre, Executive Director

Title

Report on the Plan for Implementation of Disinfection Facilities at the North Side and Calumet Water Reclamation Plants

Body

Dear Sir:

In accordance with the policy adopted by the Board of Commissioners at the Special Meeting held June 7, 2011, and at the direction of the Executive Director, the Engineering Department has developed a plan to proceed with the design and construction of facilities to disinfect the effluent from the North Side and Calumet Water Reclamation Plants (WRPs). The District has made the determination that disinfection facilities shall be operational at both plants by the year 2015. This report provides a brief description of the implementation plan to meet that deadline.

The implementation plan for disinfection facilities encompasses four phases: the Investigation Phase, the Design Phase, the Construction Phase, and the Start-Up and Operation Phase. The purpose of the Investigation Phase is to establish or confirm the appropriate disinfection technology to be implemented at the North Side and Calumet WRPs, and to develop an information data base which is necessary for establishing the parameters to be used to design the disinfection facilities. The District convened an expert panel in 2004-2005 to determine the most appropriate technology for disinfection at the MWRD plants which currently do not disinfect, and ultra-violet light technology was selected to be used for further cost estimating purposes. Several advances in disinfection technology since the time of the 2004-2005 study warrant further review.

During the Investigation Phase, analytical tests and monitoring will be required to establish the characteristics of the effluent water at each plant, which will be used to develop design parameters for the chosen technology.

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Other wastewater treatment agencies that operate very large disinfection facilities will be contacted to learn of their experiences with the construction, operation, and maintenance of these facilities, and site visits to selected plants will be arranged. Information related to the existing sites and facilities will be gathered for use during the Design Phase.

The Design Phase will provide detailed construction documents for the facilities required to provide the selected disinfection technology. The Construction Phase involves the bidding, award of contracts, and construction of disinfection and related facilities, as well as construction management and engineering design support services. The Start-Up and Operation Phase will encompass all tasks required to transition the disinfection facilities into permanent operation.

The schedule for this implementation plan is as follows:

Investigation:	September 2011 to March 2012
Design:	April 2012 to March 2013
Advertising, bidding, and award:	April 2013 to October 2013
Construction:	November 2013 to November 2015
Start-Up and Operation:	December 2015

The Monitoring and Research (M&R) Department is taking the lead on conducting the Investigation Phase. A team of engineers from the M&R, Engineering, and Maintenance and Operations Departments will be dedicated to this team until selection of the disinfection technology is made. The Investigation Phase is currently in progress.

The Engineering Department will retain professional services from consulting engineering firms to provide the engineering design work. The consultant selection process is currently in progress. Requests for Statement of Qualifications have been sent to qualified firms to present their credentials for this work under the Engineering Department's qualifications based selection process. Submittals are due September 26, 2011, and interviews will be conducted shortly thereafter. Two firms will be selected, one assigned to the North Side plant and the other to the Calumet plant. Agreements will be finalized shortly after the disinfection technology is selected by the investigation team. The scope of work for the agreements will encompass the complete design of all disinfection unit process, including all related facilities, support during advertising, and post-award engineering services. The Engineering Department will provide construction management, surveillance, and inspection during construction.

Respectfully Submitted, Kenneth A. Kits, Director of Engineering, TEK:ECB