

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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JUL 17 2006

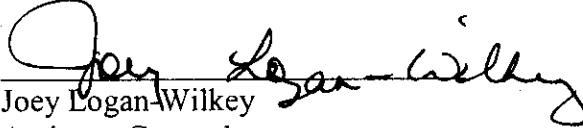
STATE OF ILLINOIS  
Pollution Control Board

CITY OF SPRINGFIELD, )  
a municipal corporation )  
Petitioner, )  
 )  
v. )  
 )  
ILLINOIS ENVIRONMENTAL )  
PROTECTION AGENCY )  
Respondent. )

PCB No. 06-137

APPEARANCE

I hereby file my appearance in this proceeding, on behalf of the Illinois Environmental Protection Agency.

  
Joey Logan-Wilkey  
Assistant Counsel

Joey Logan-Wilkey  
Assistant Counsel  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
(217) 782-5544

**THIS FILING IS SUBMITTED ON RECYCLED PAPER**

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**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

City of Springfield, Illinois, )  
A Municipal Corporation, )  
Petitioner )  
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Illinois Environmental Protection Agency, )  
Respondent. )

STATE OF ILLINOIS  
Pollution Control Board  
PCB No. 06-137  
(Variance)

**AGENCY RECOMMENDATION**

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA"), by its attorney, Joey Logan-Wilkey, and recommends that the Illinois Pollution Control Board ("Board") GRANT the requested variance by the City of Springfield ("City" or "Petitioner") from the water quality standard for dissolved oxygen (35 Ill. Adm. Code 302.206), with the conditions specified in this Recommendation.

**Introduction**

The City owns and operates an electric and water utility, City Water Light and Power ("CWLP"). The chief source of water for CWLP is Lake Springfield (Petition, paragraph 2(a), p. 2). On February 9, 2006, the City filed a variance petition with the Board. The Illinois EPA received the petition on February 9, 2006. The City requests a variance from the dissolved oxygen limits, of not less than 6.0 mg/l during at least 16 hours of any 24 hour period and not less than 5.0 mg/l at any time, in the Sangamon River, in order for CWLP to be able to use the river as an emergency source of water during drought events.

On November 29, 1988, the Board granted the City a variance as it related to the dissolved oxygen standard in the Sangamon River (PCB 88-113). On December 16, 1993, the Board granted

the City an extension of the November 29, 1988 variance (PCB 93-135). On June 8, 2000, the Board granted an extension of the December 16, 1993 variance (PCB 00-179). On February 17, 2006, the City filed a motion to supplement the record of the instant proceeding with the records of PCB 88-113, PCB 93-135, and PCB 00-179. It should be noted that although the Board has granted three variances to the City to allow it to dam the Sangamon River during emergency water shortage conditions, the City has never had to proceed with any emergency damming project.

### **Facility Description**

1. The City, through CWLP, owns and operates water and electric utilities serving the residents of the City and surrounding areas. CWLP provides water service to the City of Springfield, the Villages of Chatham, Grandview, Jerome, Leland Grove, Loami, Rochester, and Southern View, and to the Sugar Creek Public Water District and the Sherman-Williamsville Public Water Commission. CWLP also provides water to several unincorporated areas that are adjacent to the City. The service area encompasses approximately one hundred forty (140) square miles and includes a population of approximately 153,900. The long-term average daily potable water pumpage to the service area is approximately twenty-one (21) million gallons per day (“MGD”). (Petition, paragraph 1, pp. 1-2 )

### **Investigation and Notice**

2. On March 3, 2006, the Illinois EPA caused notice of the variance petition to be published in the State Journal Register. On March 16, 2006, the Illinois EPA caused notice to be sent to the individuals required to be notified by Section Section 37(a) of the Illinois Environmental Protection

Act (“Act”) (415 ILCS 5/37(a) (2004)). The Illinois EPA has not received any written comments concerning the proposed variance.

3. In preparing this Recommendation, the Illinois EPA has contacted personnel within the Division of Water Pollution Control (“DWPC”) and the Division of Public Water Supplies (“DPWS”). The Illinois EPA has consulted the following Bureau of Water staff members:

- a. Toby Frevert,
- b. Bruce Yurdin,
- c. Bob Mosher,
- d. Roger Calloway,
- e. Bud Bridgewater,
- f. Dave McMillan, and
- g. Mike Garretson.

The Illinois EPA has reviewed the variance files in PCB No. 88-113, PCB No. 93-115, and PCB No. 00-179.

#### **Variance Requested**

4. The City requests a variance from the water quality standard for dissolved oxygen in the Sangamon River. Section 302.206 states:

“Dissolved oxygen (STORET number 00300) shall not be less than 6.0 mg/l during at least 16 hours of any 24 hour period, nor less than 5.0 mg/l at any time.” (35 Ill. Adm. Code 302.206)

#### **Facts**

##### *Background*

5. In order to address severe drought conditions and low water levels in the lake, the City developed an emergency water supply plan that involved supplementing the lake with water from the Sangamon River and graduated water restrictions. The emergency water supply would be created by placing temporary dams in the Sangamon River and the South Fork of the Sangamon

River. (Petition paragraph 3(b), p. 6) CWLP would then supplement the lake water level by pumping water from the impoundment area created by the temporary dams. Unless the City obtains a variance from the dissolved oxygen standard for the Sangamon River, the Illinois EPA would have to deny, based on an inability to meet applicable water quality standards, certification to the United States Army Corps of Engineers (Corps of Engineers) for a permit to place temporary dams in the river.

6. In *City of Springfield v. Illinois Environmental Protection Agency*, (PCB No. 88-113, November 29, 1988), *City of Springfield v. Illinois Environmental Protection Agency*, (PCB No. 93-135, December 16, 1993), and *City of Springfield v. Illinois Environmental Protection Agency*, (PCB No. 00-179, June 8, 2000), the City sought and obtained a variance from the dissolved oxygen standards for the Sangamon River. The Board also required the development of a long-term solution for the City's water supply needs by the development of a second water supply source. During the terms of the variances in PCB Nos. 88-113, 93-135, and 00-179, the City did not have to place temporary dams in the river. However, the City took several steps, discussed below, to make progress on its long-term supplemental water source, Hunter Lake.

#### *Hardship*

7. As the City notes, the variance granted in PCB 00-179 expired on June 8, 2005. The permit granted by the Corps of Engineers expired on December 31, 2005. The City presently without a valid permit from Corps of Engineers to construct temporary dams necessary for its emergency water supply source. It is without a variance from the water quality standards for dissolved oxygen, and the Illinois EPA must deny a Section 401 of the Clean Water Act certification without the variance. The current lake level of Lake Springfield is 556.5 MSL, or approximately 3.5 feet below full pool (560 MSL). The City notes that for this time of year, the lake level is nearly 1.5 feet below

average. “In view of current conditions and the current estimated schedule for completion of Hunter Lake, the City of Springfield has decided to reapply with the Corps of Engineers for the permit to construct the dam on the Sangamon River that is called for in the City’s emergency water supply plan.” (Petition, paragraph 7, p. 11). As in prior instances, the Illinois EPA cannot certify under Section 401 of the Federal Water Pollution Control Act (FWPCA) that the project will result in discharges that comply with applicable water quality standards under Title III of the Clean Water Act unless the City again requests that the Board grant a variance from the dissolved oxygen water quality standard as it relates to the Sangamon River.

8. The Illinois EPA agrees that the City conducted dissolved oxygen analyses and explored alternatives to obtaining a variance from the dissolved oxygen water quality standard. As the Petition states that the City has “...had its consulting engineers conduct a dissolved oxygen (DO) analysis...with and without the presence of the temporary dam under low-flow conditions. The analyses showed virtually no difference in the DO patterns downstream of the dam given the two scenarios...Aeration of the Sangamon River impoundment by supplemental means was also evaluated. It was determined that incrementally raising the DO level from 2.9 mg/l to 6.5 mg/l would cost \$372,0000 to \$661,800 (1998 dollars) in initial capital costs. However, it was concluded further that it is very difficult to determine what will happen to the water quality within the impoundment area with or without artificial aeration. Moreover, installation of the temporary equipment would require a lead time of four to six months before it would be delivered to the project site. Based on these considerations, supplemental aeration was not considered to be feasible. (Record, 88-113, Tr. 216-224)” (Petition, paragraph 10(1), pp. 14-15; emphasis added).

The City further states that, “[d]iel monitoring of DO in the pool upstream of the existing channel dam on the South Fork of the Sangamon River in September, 1985 (Exhibit 8 to the 1988

Petition) provided empirical data from conditions that might be expected to occur with the proposed diversion facility. These data suggest that acceptable DO concentrations may be available in the pool on the Sangamon and South Fork under the emergency water supply plan. (Record 88-113, Tr. 249-252)” (Petition, paragraph 10(b), p. 15)

9. The lag time mentioned above could be critical during a severe drought condition. In fact, any delay in building the dams once it is determined that the dams need to be built, could be critical to maintaining the City’s water supply. The Illinois EPA therefore agrees with the City that continuous compliance at all times with 35 Ill. Adm. Code 302.206 by the City would impose a substantial, arbitrary and unreasonable hardship in that the City, potentially, is not capable of achieving compliance with the water quality standard under all circumstances during the life of the actual project for which the variance is requested, and because the standard potentially may not exist in the Sangamon River under drought events. (Petition, paragraph 11, p. 15)

#### **Cost of Compliance**

10. As stated in paragraph 8, the Illinois EPA agrees that the City has evaluated alternatives for the provision of an emergency water supply. It has also provided the cost of compliance with the dissolved oxygen standard by artificial aeration. (Petition, paragraph 10(a), p. 14) As stated in paragraph 9, the Illinois EPA agrees that given the lag time in installing the equipment during a critical water shortage, and the cost of installing the equipment, that continual compliance with 35 Ill. Adm. Code 302.206 by the City would impose a substantial, arbitrary and unreasonable hardship in that the City is potentially not capable of achieving the standard under all circumstances during the life of the actual project for which the variance is requested, and because the standard potentially may not exist in the Sangamon River under drought events.

### **Federal Law**

11. There are no applicable federal laws or regulations that preclude the granting of this variance.

### **Environmental Impact**

12. Petition has stated that “[a] variance from the DO standard will not have an appreciable impact upon the fishery and invertebrate populations that would not already exist from the drought event during which the project would be implemented. The population density of fishes may be significantly reduced by drought conditions.” (Petition, paragraph 11(j), p. 23) The Illinois EPA agrees with this statement.

13. However, the City goes on to state that the remaining fish in the river would “have negligible value.” (Petition, paragraph 11(j), p. 24) The Illinois EPA does not agree that the fish in the Sangamon River have little or no value. Therefore, the City should be required to mitigate with the Illinois Department of Natural Resources any fish that could be killed due to the construction of the dams.

### **Compliance Plan**

14. In the prior proceeding, the Illinois EPA recommended and the Board conditioned the variance upon the development of an additional source of water for the Petitioner.

a. **Hunter Lake**

“The Board’s order in PCB 88-113 conditioned the granting of the requested variance upon the City undertaking a schedule for an alternative plan to eliminate the need for implementing the particular project for which the variance was granted.

Petitioner embarked on pursuing the alternative of a second lake. On December 20, 1988, the Council of the City of Springfield adopted Ordinance No. 899-12-88,



entitled Ordinance Authorizing the Construction and Development of Lake Springfield II in the City of Springfield, Illinois...The Council then adopted Ordinance No. 54-1-89 on January 17, 1989, naming the proposed second lake as John H. Hunter Lake, [Hunter Lake].” (Petition, paragraph 17, p. 27) Since 1988, the City has hired numerous organizations and engineering firms to conduct studies necessary to complete an Environmental Impact Statement that the Corps of Engineers required prior to building Hunter Lake.

As the City notes: “Upon completion of all study elements, final reports and a revised DEIS text was transmitted to the Corps on May 8, 1998. The Corps compiled all of the available information and published the DEIS for the Hunter Lake Project on April 9, 1999. The 45-day comment period was extended upon request of the U.S. Fish and Wildlife Service and comments were received by the Corps through June 18, 1999. Comments were sorted and evaluated by the Corps, and a request was forwarded to the City on September 14, 1999 asking for the City to provide additional information and response to various DEIS comments. The City forwarded the majority of comment responses to the Corps on February 3, 2000...Publication of the final EIS occurred in November, 2000. Between March and May 2001, additional wetlands information and responses to FEIS public hearing comments were formulated. The Corps began formulating its Record of Decision, but completion remained subject to IEPA issuing its Section 401 permit conditions. In September 2001 IEPA specified additional elements needed with regard to the sewage outfalls of Divernon, Pawnee and the Virden Sanitary District for discharges in the Hunter Lake Watershed. From November 2001 to the present,

studies and negotiations regarding options for relocating effluent discharges or upgrading the sewage treatment facilities for the three communities, as well as addressing flooding concerns of the Village of Pawnee, were conducted. Draft agreements were prepared for consideration in each community. On August 27, 2003 an agreement was finalized between Divernon and Petitioner with regard to relocating the effluent of their sewage lagoon outfall. Agreements with Pawnee and the Virden Sanitary District remain outstanding. In October 2004 an additional study regarding the feasibility of pumping Virden, Divernon and Pawnee wastewater to the Springfield Metro Sanitary District was completed. Negotiations continued with all three communities to the present. In April 2005 Petitioner forwarded correspondence to the IEPA and to the Corps of Engineers outlining updated water demand and yield information and requesting renewed effort at issuing the Section 401 Water Quality Certification and the Record of Decision. On June 2, 2005 a meeting was held with the Corps. Background information was reviewed and new revised information needs were presented to the Petitioner for the Corps to complete it's Record of Decision...Negotiations and exchanges of information regarding the sewer projects for the three villages are ongoing.” (Petition, paragraph 31-37, pp. 33-35) The City also states that “[t]he City’s modified NPDES permit became finalized on July 20, 2000.” (Petition, paragraph 43, p. 37)

Thus, the Illinois EPA agrees that the City has shown progress toward securing a second source of water.

b. Variance Length

The City states that “Petitioner again seeks a variance for a term of five years. Petitioner does not anticipate that it will have secured a second water supply during this five year period. Upon the Agency’s issuance of the 401 water quality certification for the Hunter Lake Project, the Corps of Engineers can proceed to make its decision on the underlying permit application. If the Corps does grant the permit and the United States Environmental Protection Agency concurs (the Agency is deemed to have veto power under Section 404 (c) of the Clean Water Act), Petitioner will proceed with detailed engineering of the project, development of plans and specifications for construction contracts, bid contracts and conduct Phases II & III historical and archaeological work. Petition must also issue bonds to finance this work and the subsequent construction activities. Petitioner estimates that it would take at least two years to complete construction and fill the lake. (Petition, paragraph 47, p. 39) However, the City goes on to state that “Petitioner believes that the variance should be granted to continue the potential for the Sangamon River to serve as an emergency supply of water in accordance with the plan discussed in PCB 88-113, PCB 93-135, and PCB 00-179 should a drought event occur prior to completion of Hunter Lake. (Petition, paragraph 47, p. 39) Section 36(b) of the Act provides that variances are for a period of time not exceeding five years. (415 ILSC 5/36(b) (2004)) The Board may extend a variance from year to year but only if satisfactory progress has been shown. (415 ILCS 5/36(b) (2004)) The

request from the City to extend its variance until Hunter Lake is completed, which is more than five years away, is not permitted under the express terms of the Act.

c. Use of Recirculated Water

As the City notes, “in the Agency Recommendation filed in PCB 93-135, it requested that the Board’s grant of a variance require that the Petitioner continue to supplement Lake Springfield with the recirculated clarification pond water. The Agency concluded that this had a ‘lesser environmental impact of allowing the City to temporarily return this clarification pond water into Lake Springfield during extreme drought events than in damming the Sangamon River” (Paragraph 6 of the Recommendation.)...Prior to filing its 2000 petition, the City met with the Agency on April 28, 2000, to develop an acceptable operating scenario by which this clarification water could be returned to Lake Springfield during drought events while meeting the general water quality standard for boron in Lake Springfield and resulting in no adverse impacts on the finished drinking water of Springfield...By March 2001, the pipeline had been constructed and the new pumps were in place at the old discharge point.” (Petition, paragraphs 40-44, pp. 35-37) The City has utilized the recirculation mode periodically as needed since that time.

d. Emergency Water Plan

The City has attached its “City of Springfield Drought Management Schedule Emergency Water Supply Plan” (“Plan”) to the petition as Exhibit

1. (Petition, Exhibit 1) As the Plan notes, in May at below average lake levels, the City is to pass the first of several ordinances addressing water conservation. (Petition, Exhibit 1) The Illinois EPA notes that the Plan provides that additional water use restrictions/requirements will be undertaken by the City as the water level in the lake decreases. However, it does not provide specific details regarding those restrictions. Nevertheless, in the interest of timely implementation of the drought management described in the Plan, the Illinois EPA will condition its recommendation on a requirement that the City develop the specific details of the more restrictive water use ordinance and other more stringent conservation measures that will be required in the event of a drought. The Illinois EPA will continue to be available for involvement and to confer with the City if any additional drought emergency measures are required.

#### **Recommendation**

15. The Illinois EPA recommends that the Board grant the Petitioner a variance from the water quality standard as it relates to dissolved oxygen in the Sangamon River subject to the following conditions:

- a. The Petitioner shall remove any temporary dams constructed when normal lake level, described in Petition Exhibit 2, returns.
- b. The Petitioner shall mitigate any losses of fish with the Illinois Department of Natural Resources if a fish kill occurs as a result of placement of the dams.
- c. The Petitioner shall initiate mandatory water conservation measures before the dams are constructed. As a part of the water conservation measures, the Petitioner shall

be required during extreme drought events to supplement the water levels in the Lake Springfield water supply by discharging its recirculated clarification pond water back into the lake. The Petitioner shall initiate its water conservation measures in such a way that water conservation will lessen the need for damming the Sangamon River.

The Petitioner shall proceed at this time to develop and seek City Council approval of the specific details associated with the more restrictive water use ordinance and other more stringent conservation measures that will be required in the event of a continuation of a drought.

The Petitioner shall submit to the Illinois EPA any mandatory water conservation measures that are approved by the City Council.

- d. The mandatory conservation measures must remain in effect as long as the dams remain in place. The measures may be withdrawn only when the temporary dams are actually removed from the rivers.
- e. The Petitioner shall assure a minimum release of 41 cubic feet per second of water from the Sangamon River dam in accordance with the Division of Water Resources in stream flow analysis and the August 19, 1987 letter to the U.S. Army Corps of Engineers.
- f. The Petitioner shall conduct monitoring for dissolved oxygen at stations located both above and below the dam to be installed on the Sangamon River and above the dam to be installed on the South Fork of the Sangamon River. The Petitioner shall submit the results of such monitoring to the Illinois Department of Natural

Resources, Division of Water Resources, and the Illinois EPA on a monthly basis or upon request.

- g. This variance shall expire within five (5) years or upon the Petitioner receiving a second water supply source, whichever occurs first.

**Certification**

16. Within forty-five days of the Board's final order, the Petitioner shall execute the attached Certificate of Acceptance and Agreement to be bound to all of the terms and conditions of the granted variance. This agreement shall be forwarded to:

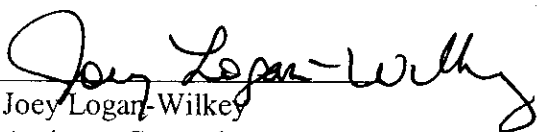
Michael Garretson, Manager  
Compliance Assurance Section  
Bureau of Water  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

The forty-five (45) day period shall be held in abeyance during any period that this matter is being appealed. Failure to execute and forward this certificate in a timely fashion shall render the variance null and void.

17. The Illinois EPA reserves the right to supplement this Recommendation at any time prior to the closure of the record in this proceeding.

Respectfully submitted,  
Illinois Environmental Protection Agency

Dated: July 14, 2006  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
(217)782-5544

By:   
Joey Logan-Wilkey  
Assistant Counsel

**CERTIFICATE OF SERVICE**

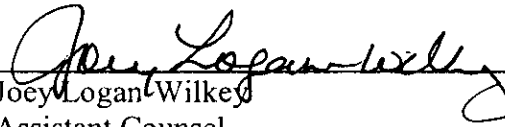
I, Joey Logan-Wilkey, certify that I have served the original and nine copies of the attached **Appearance** and **Agency Recommendation for Variance**, by first class mail, upon:

Ms. Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
100 West Randolph Street, Suite 11-500  
Chicago, IL 60601

And one copy to

William A. Murray  
Special Assistant Corporation Counsel  
Office of Public Utilities  
800 E. Monroe  
4<sup>th</sup> Floor, Municipal Building East  
Springfield, IL 62757

via first class United States mail from Springfield, Illinois, on the 14<sup>th</sup> day of July 2006,  
with postage fully prepaid.

  
Joey Logan Wilkey  
Assistant Counsel  
Division of Legal Counsel

**THIS FILING IS SUBMITTED ON RECYCLED PAPER**