ILLINOIS POLLUTION CONTROL BOARD
September 7, 2006

CITY OF SPRINGFIELD, ILLINOIS, a municipal corporation,	)	
Petitioner,	)	
v.	)	PCB 06-137
	)	(Variance – Water)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
Respondent.	)	

OPINION AND ORDER OF THE BOARD (by N.J. Melas):

On February 9, 2006, the City of Springfield (Springfield), located in Sangamon County, filed a petition for a variance (Pet.). Springfield seeks relief from the Board's dissolved oxygen (DO) general use water quality standard, set forth at 35 Ill. Adm. Code 302.206.

The granting of the requested relief will allow Springfield to seek certification from the Illinois Environmental Protection Agency (Agency) and a permit from the United States Army Corps of Engineers (USACE) to build temporary dams in the Sangamon River Basin. The supplemental water supply created by the temporary dams will allow Springfield's electric and water utility to use the river as an emergency source of water during drought events. This is Springfield's fourth request for such relief since 1988. To date, environmental conditions have not required Springfield to construct the temporary dams.

The Agency recommended granting the variance as requested. Springfield has waived hearing. Today the Board grants the five-year variance as requested, subject to conditions. The Board has expedited consideration of this case.

PROCEDURAL BACKGROUND

On March 16, 2006, the Board ordered the City of Springfield to provide supplemental information in an amended petition. On May 30, 2006, Springfield filed an "Amendment to Petition for Variance" (Am. Pet.). Based on the May 30, 2006 filing date of the amendment, the decision deadline is September 27, 2006. *See* 415 ILCS 5/38(a) (2004); 35 Ill. Adm. Code 104.232(a)(1)).

Along with the May 30, 2006 amendment, Springfield also filed a motion for expedited review. The Board granted the motion on June 6, 2006, and has considered Springfield's petition

as expeditiously as the Board's resources have allowed.[1] Springfield also moved that the records of the three previous variances be incorporated into the instant record, contending that the exhibits and testimony presented in the two dockets remain true and correct. Pet. at 11. The Board granted Springfield's request to incorporate on March 16, 2006.

Springfield has waived hearing. The Agency filed a recommendation that the Board grant the petition on July 17, 2006 (Ag. Rec.). On July 27, 2006, Springfield responded to the recommendation expressly accepting all conditions specified in the recommendation (Resp.).

FACTUAL BACKGROUND

Springfield owns and operates a water and electric utility, City Water Light and Power (CWLP), which serves the residents of Springfield and certain nearby areas. In addition to Springfield, the water utility also serves the Villages of Chatham, Grandview, Jerome, Leland Grove, Loami, Rochester, and Southern View; the Sugar Creek Public Water District and the Sherman-Williamsville Public Water Commission; and certain unincorporated areas adjacent to Springfield. Pet. at 1-2.

The population served by the water utility is approximately 153,900. Pet. at 1. During 2004 and 2005, the maximum hourly pumpage rate reached 36.0 and 40.9 million gallons per day (mgd), respectively. The maximum daily production was 30.5 mgd and 35.87 mgd, respectively. Pet. at 2. During 2005, the electrical utility generated 1,818.80 gigawatt hours to serve these customers, with peak summer demand of 467 megawatts (MW). *Id*. CWLP's capacity is 448 MW. *Id*. CWLP's utilities are administered by the Office of Public Utilities, which employs 703 individuals. *Id*. at 1.

Lake Springfield is the prime water supply source for the Springfield and surrounding communities. Pet. at 2. Lake Springfield is also the sole source of water for the electrical generating plant, located on the southeast and south sides of the City of Springfield. *Id*. It has a drainage area of 265 square miles, and was constructed in 1935 as the chief water supply source for Springfield. *Id*.

During severe drought periods, Lake Springfield provides an inadequate supply of water. Springfield states that water utility operational problems as a result of reduced water quality can occur at a lake elevation of 546 feet mean sea level (MSL) and below. Pet. at 2-3, 5. The adequacy of Lake Springfield as a source of supply was first tested during a drought event that occurred between 1953 and 1955 when the lake level declined from a full pool elevation of 560 feet MSL to 547.4 feet MSL. *Id*. at 2. During that drought event, Springfield constructed a moveable low water dam across the South Fork of the Sangamon River below its confluence with Horse Creek. *Id*. at 3. This facility diverts water from the South Fork and Horse Creek to Lake Springfield and is still used periodically to supplement the lake during dry weather. *Id*.

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[1] Springfield's original petition for variance will be cited as "Pet. at ___"; Springfield's amended petition for variance will be cited as "Am. Pet. at ___"; the Agency's recommendation will be cited as "Ag. Rec. at ___"; Springfield's response will be cited as "Resp. at ___."

In 1986, Springfield completed a technical evaluation of long-term water supply needs. The evaluation concluded that Lake Springfield would meet the water supply needs of the projected service area during drought conditions if an emergency water supply plan was developed that incorporated the use of the Sangamon River. Pet. at 4-5.

Accordingly, Springfield has prepared a two-part emergency water supply plan. The first component is a drought management schedule. The objective of this component is to provide the public with the information and means to reduce water demand. Pet. at 5. The second component is a temporary diversion of water from the Sangamon River into Lake Springfield. *Id*. The diversion project involves building of temporary dams in the Sangamon River and the South Fork of the Sangamon River, which in turn requires permits from USACE. Pet. at 6-7. As a condition of granting the permits, USACE requires a demonstration by Springfield that no water quality standards will be violated due to the presence of the dams. *Id*. at 7.

Springfield seeks a new five-year variance from the DO water quality standard in light of projected drought conditions. Pet. at 10-11. Springfield has faced the same situation three times in the past, and has been granted variance relief similar to that requested here in all three instances. The first variance was granted in City of Springfield v. IEPA, PCB 88-113 (Nov. 29, 1988). The second variance was granted in City of Springfield v. IEPA, PCB 93-135 (Dec. 16, 1993). The third variance was granted in City of Springfield v. IEPA, PCB 00-179 (June 8, 2000). All three records of the previous variances are incorporated into this record.

Although USACE issued the permits necessary to construct the dams during the term of all three of the previous variances, Springfield never constructed the temporary dams. Pet. at 8. Subsequent to November 29, 1988, the level of Lake Springfield never reached a point where the diversion provisions of the emergency water supply plan needed to be implemented. *Id*.

REGULATORY FRAMEWORK

In determining whether to grant a variance, the Board must determine whether a petitioner has presented adequate proof that compliance with the Board regulations at issue would impose an arbitrary or unreasonable hardship. 415 ILCS 5/35(a) (2004). Furthermore, the burden is upon the petitioner to show that its claimed hardship outweighs the public interest in attaining compliance with regulations designed to protect the public. Willowbrook Motel v. PCB, 135 Ill. App. 3d 343, 481 N.E.2d 1032 (1st Dist. 1977). Only with such a showing can the claimed hardship rise to the level of arbitrary or unreasonable.

A variance is a temporary reprieve from compliance with the Board's regulations and petitioners should seek compliance regardless of the hardship that compliance may present an individual polluter. Monsanto Co. v. PCB, 67 Ill. 2d 276, 367 N.E.2d 684 (1977). Accordingly, except in certain special circumstances, petitioners are required, as a condition to the granting of a variance, to commit to a plan that will bring them into compliance within the term of the variance.

BURDEN OF PROOF AND STANDARD OF DECISION

Springfield has the burden of proof. 415 ILCS 5/35(a) (2004); *see also* 35 Ill. Adm. Code 104.238. The Board may grant a variance "whenever it is found, upon presentation of adequate proof, that compliance with any rule or regulation, requirement or order of the Board would impose an arbitrary or unreasonable hardship." 415 ILCS 5/35(a) (2004). If the Board fails to take final action by the decision deadline, Springfield "may deem the request granted under this Act, for a period not to exceed one year." 415 ILCS 5/38(a) (2004).

THE REQUESTED VARIANCE

Springfield requests a "new variance for a five-year period with the same terms and conditions as set forth in the order of the Board granting variance PCB 00-179." Pet. at 11. Springfield's prior variances granted the city relief 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.

In the amended petition, Springfield identifies the specific portion of the Sangamon River for which it seeks a variance. Springfield states that the variance should apply to the pool created by the temporary dams in both the Sangamon River (a six mile pool) and the South Fork of the Sangamon River (a 5.5 mile pool). Am. Pet. at 5. Springfield also requests that the variance apply to the South Fork below the dam to its confluence with the Sangamon River, and below the dam on the Sangamon River until the rock and crib dam, located at river mile 73.07. *Id*. The Sangamon River temporary dam is designed to be located at river mile 85.24. Pet. at 6. Based on Springfield's request in its amended petition, the variance is to apply up to 12.17 miles downstream of the temporary Sangamon River dam.

The Agency recommends granting the variance as requested, including conditions new and old. The Agency's comments and suggestions will be discussed under each of the headings below along with the petition's assertions.

ENVIRONMENTAL IMPACT

The Illinois Department of Transportation Division of Water Resources conducted an instream flow analysis included in Springfield's PCB 88-113 petition. Based on that analysis, the Division of Water Resources advised the USACE, on August 19, 1987, that the water diversion project portion of the requested relief would provide sufficient flow habitat if DO levels downstream of the project can be maintained at acceptable levels. Pet. at 7, citing PCB 88-113, Exh. 2. Springfield, however, cannot guarantee that the Sangamon River would continuously meet the DO standard, due in part to natural conditions. Pet. at 7-8. Springfield states that a low lake level, of 557.0 feet MSL or less, on June 30 of any given calendar year during the life of the variance would trigger the installation of the dams in the Sangamon River. The temporary dams would create pools and pumping into Lake Springfield would begin upon completion of the temporary dams. The temporary dams would be removed once the lake reaches normal levels. *Id*. at 6-7, Exh. 2.

The USACE permit, effective September 5, 2000 through June 8, 2005, that Springfield attached to the amended petition states:

> [E]xisting tributaries and mouths of intermittent streams along the Sangamon River approximately 5.2 miles upstream of the dam will experience more water than otherwise would occur. In the South Fork, the diverted water will be maintained within the channel except for one eight-acre stand of timber which will be inundated. Pet., Exh. 13 at 1(a).

If the temporary dams are constructed, Springfield proposes to maintain a downstream release rate of 41 cubic feet per second (CFS). Pet. at 12. DO monitoring in the pool upstream of the existing channel dam on the South Fork of the Sangamon River provided empirical data from conditions that might be expected with the proposed diversion. Springfield asserts that data suggest acceptable DO concentrations may be available in the temporary pools under the emergency water supply plan. *Id*. at 15. Springfield determined that it could not maintain continuous compliance at all times with the Board's dissolved oxygen water quality standard. *Id*. Springfield asserts that compliance with Section 302.206 would impose a hardship since the Sangamon River may not meet the dissolved oxygen water quality standard under drought conditions even without implementation of the river diversion project. *Id.*

In each of the previous variance dockets, the Board concluded that the proposed river diversion project would not cause DO problems either upstream or down stream during cold weather months. Most of the DO concern regarding Springfield's proposal is centered on the possible negative impacts caused by higher temperatures, increased solubility, and increased algal populations that tend to occur during warm weather low-flow situations. Data shows that the DO standard in the Sangamon River is not now consistently met at warm weather low-flow.

Springfield asserts that a comparison of biological and water quality survey results of the Sangamon River show improvement since Springfield's first petition for a variance from the DO standard (PCB 88-113). Pet. at 38, Exh. 11. Springfield attributes this progress to improvements in the handling of both wastewater treatment plant discharges and combined-sewer overflows. *Id*. According to Springfield, the Sangamon River did not meet the state DO water quality standard at one station in 1996, but met the DO standard in all locations during a 2003 survey. *Id*.

In conclusion, Springfield contends that the requested relief will not have an "appreciable" impact upon the fish and invertebrate populations. Pet. at 23. The drought event that would trigger the project may already have caused reduced populations of many fish species. *Id*. Because the Sangamon River fishery may be substantially different during drought conditions, Springfield claims it would be "difficult to predict what fishes, if any, may serve to be protected by the application of standard dissolved oxygen criteria in an extraordinary, yet natural scenario." *Id*. at 24.

The Agency agrees with Springfield's assessment of the environmental impact on the Sangamon River except for Springfield's statement that "a persistent course fishery would have

negligible value." Ag. Rec., par. 13, citing Pet. at 24. The Agency assigns value to the fish and asks the Board to require Springfield to mitigate with the Illinois Department of Natural Resources (DNR) any fish killed due to construction of the dams as the Board did in granting Springfield's requested variance in PCB 00-179. *See* City of Springfield v. IEPA, PCB 00-179, slip op. at 9 (June 8, 2000). Springfield contends a fishery survey of the Sangamon River will be performed "immediately before construction of the temporary diversion structures to provide a baseline against which further damages, if any, could be measured." Pet. at 25.

Springfield states that in addition to the Sangamon River fishery, the diversion project would also benefit the Lake Springfield sport fishery. Springfield claims that the project would help assure the survival of sensitive game fish in Lake Springfield. Pet. at 24.

COMPLIANCE ALTERNATIVES

Springfield evaluated aeration of the Sangamon River impoundment by supplemental means. Pet. at 14. Springfield determined that raising the DO level from 2.9 mg/L to 6.5 mg/L through artificial aeration would cost $372,000 to $661,800 (1998 dollars) in initial capital costs. Further, installation of the temporary equipment would require four to six months before it would even be delivered to the project site. This amount of lag time could be critical during a severe drought. Based on these considerations, aeration was not considered a feasible alternative. Pet. at 14-15.

A feasible long-term alternative to constructing Hunter Lake that was considered was the construction of facilities to withdraw water from the Sangamon River, Brush and Horse Creeks, and the South Fork to Lake Springfield. This alternative was estimated at $13,000,000 (1981 dollars). Pet. at 4.

In 1983, Springfield's consulting engineers evaluated alternative emergency water supply sources including a well field development along the Sangamon River Valley, and pumping from nearby gravel aquifers. Pet. at 15-16. Based on the evaluation, Springfield determined that potential return was not sufficiently high to warrant this alternative and it would take too long to implement the plan to serve as an effective emergency water supply. *Id*. at 16.

COMPLIANCE PLAN

Springfield has taken several steps to address its water shortage on both a short and long-term basis. The most recent variance, granted in PCB 00-179, expired on June 8, 2005. Accordingly, no variance is currently in effect.

Water Conservation

On May 2, 2000, Springfield adopted an ordinance that mandates water conservation as a method for reducing water demand. Pet. at 3. Included in the conservation program are prohibitions against certain water uses and restrictions on the amounts of water use.

According to Springfield, the trigger for initiating conservation measures is a level of 557 feet on June 30 of any given calendar year during the life of the variance. Springfield notes, however that it may initiate measures to encourage voluntary water conservation even before the lake level reaches the critical level. In 1988, for example, the petitioner disseminated water saver kits and public information when the lake level was not yet 558 feet. The kits included "low-flow shower heads, toilet dams, low flow kitchen and bathroom faucet aerators, toilet leak detection tablets, toilet tank flow diverters and installation instructions." Pet. at 17. Springfield notes that through 2005, 6,098 kits have been distributed, almost entirely to residential customers. This number represents 14.1% of the system's total water customers.

Additionally, water conservation measures were included as part of the Hunter Lake draft environmental impact statement (DEIS). Springfield, states that it has already implemented two very important conservation measures that reduce demand by 1.3 to 1.9 million gallons per day. Pet. at 18. First, Springfield implemented the voluntary home plumbing retrofit program, and second, Springfield revised the city's plumbing code in 1990 to require low-flush toilets and low-flow showerheads and faucets for all new or replacement construction. *Id*.

The Agency recommends that in granting the variance the Board require Springfield to develop, and submit to the City Council for approval, a more restrictive water use ordinance and other more stringent measures that will be required in case of a drought. The Agency suggests that any measures approved by the City Council should be submitted to the Agency.

Use of Recirculated Water

In PCB 93-135, the Agency requested that the variance require Springfield to continue to supplement Lake Springfield with recirculated clarification pond water from Springfield's electrical utility. Pet. at 35. The Agency concluded that this had less of an environmental impact than damming the Sangamon River. Ag. Rec., par. 14(c).

In the past, Springfield had problems meeting the boron water quality standard of 1 mg/L when pumping water from its ash pond clarification lagoon into the Sangamon River. In 2000, Springfield proposed relocating the clarification pond discharge to the Dallman Plant intake. Pet. at 36. The intake is for once-through, non-contact cooling water. *Id*. Springfield states the relocation would divert ash pond effluent into the Dallman cooling water intake, which discharges back to Lake Springfield through two different outfalls. The Agency agreed to the modification, but required additional sampling to ensure compliance with the boron water quality standard. *Id*. By March 2001, the new pumps were in place. Pumping was done periodically in 2001, 2002, 2003, and 2005, except for the intermittent times that boron levels required the pumps to be shut off. *Id*. at 37.

The Agency recommends that, as part of water conservation measures, Springfield must supplement the water levels in Lake Springfield during extreme drought events by discharging its recirculated clarification pond water back into the lake. Ag. Rec., par. 15(c).

Movable and Temporary Dams

When water reaches a level of 557.0 MSL or lower on June 30 of any given calendar year during the life of the variance, Springfield plans to construct temporary dams. The final engineering design includes a lower conduit and valve configuration that will allow for a downstream release rate of 41 CFS. Pet. at 13. The design also includes a crest weir and riprap spillway to permit higher river discharges to pass at or near river elevation (525.0 feet MSL). Springfield has provided for discharge gauging at the site and other dam design parameters will comply with the DNR standards and regulations. *Id*.

Springfield constructed one movable dam across the South Fork of the Sangamon River immediately east of Lake Springfield for short-term supply supplementation during the 1953-1955 drought event. Pet. at 3. During dry weather the dam is put in place and water is pumped from the pool behind the dam into Lake Springfield. *Id*. The movable dam facility has been maintained in working condition and is operated periodically to supplement the Lake Springfield water supply. *Id*.

Hunter Lake

As a condition to granting Springfield's requested relief in PCB 88-113, the Board required Springfield to devise and implement a plan to eliminate the need for implementing the particular project for which the variance was granted. Pet. at 27. The principal option for long-term supply supplementation is the construction of a second lake. This lake, which has been named Hunter Lake, has not yet been built, but Springfield has taken several significant steps towards its completion.

The Agency agrees that Springfield has progressed towards securing a second source of water. Ag. Rec., par. 14. Since the Board issued Springfield's last variance on June 8, 2000, the final environmental impact statement was published in November 2000. Springfield states that it continues to exchange information with the neighboring villages of Virden, Divernon, and Pawnee, which have sewage outfalls within the Hunter Lake watershed. Pet. at 34, 35. On August 27, 2003, an agreement was finalized between Divernon and Springfield, but agreements with Pawnee and the Virden Sanitary District remain to be completed. *Id*. at 34.

Springfield has acquired approximately 91% of the acreage (7,128 of the 7,795 acres) required for the project. Pet. at 35. Springfield does not anticipate that it will have secured a second water supply during this requested five-year variance term. *Id*. at 39. For this reason, Springfield urges the Board to grant the variance so that the Sangamon River can continue to serve as an emergency supply of water in case a drought occurs before Hunter Lake is completed. *Id*.

Schedule for Implementation

A level of 557 MSL or lower on June 30 of 2007, or throughout the life of the variance, triggers the implementation of the Sangamon River portion of the emergency plan. Springfield would then follow a specified schedule. Pet., Exh. 1.

Springfield does not anticipate that it will have secured its long-term water supply during the requested variance. Once the Agency issues the water quality certification for Hunter Lake under Section 401 of the federal Clean Water Act (CWA), 33 U.S.C. 1341, USACE can make a decision on the permit application. Assuming USACE grants the permit and the United States Environmental Protection Agency concurs, Springfield will then proceed to the financing, development, and construction portions of the project. Springfield estimates that once USACE issues a permit, it will take a minimum of five years to complete detailed design, secure project funding, complete land acquisition, construct the necessary facilities, and fill the lake. Am. Pet. at 4. For these reasons, Springfield requests the variance for the maximum allowable period of five years. Pet. at 39.

Estimated Costs

Springfield believes the costs of the project are justifiable when measured against the potential economic and social losses. Water quality monitoring will cost $2,500 per month. The temporary Sangamon River diversion project will cost less than $1 million to implement. Pet. at 21. Springfield states the potential impact on Sangamon River fishery is approximately $65,000, but the impact of a drought without the project would probably be substantially greater. *Id*.

Springfield estimates the long-term water supply alternative of constructing Hunter Lake to cost approximately $103,000,000 (2005 dollars). Pet. at 4.

ARBITRARY OR UNREASONABLE HARDSHIP

Springfield argues, and the Agency agrees, that continued compliance at all times with the DO water quality standard (35 Ill. Adm. Code 302.206) by Springfield would impose a substantial, arbitrary and unreasonable hardship. Pet. at 15; Ag. Rec., par. 10. Springfield states the Sangamon River may not meet the DO water quality standard under drought conditions even without implementation of the river diversion project. Pet. at 15. The Agency similarly concludes that the Sangamon River potentially will not meet the water quality standard 100% of the time during the diversion project. Ag. Rec., par. 10. The Agency believes that water quality violations may be inevitable due to natural causes that occur during drought conditions. *Id*.

Temporarily damming the Sangamon River and South Fork requires involvement from USACE of Engineers pursuant to Section 404 of the CWA. 33 U.S.C. 1344. As part of the permit process, the Agency must certify under Section 401 of the CWA that the project will not violate any water quality standard. 33 U.S.C. 1341. For these reasons, Springfield contends that it needs a variance from the DO standard because without it, the Agency would not be able to certify under Section 401 of the CWA as required by USACE prior to its issuance of the necessary permit. Pet. at 15.

According to Springfield, supplementing Lake Springfield's water supply is critical to maintaining electric and water utility operations during times of drought. Pet. at 18. The city could potentially discontinue electric generation and instead purchase power from other sources. This assumes, however, that the drought event would not also affect the electric utilities from which Springfield would purchase electricity. Springfield states, however, that the cost of

purchasing power would be a hardship. Springfield contends that at the time of filing, electricity from its units on Lake Springfield cost $24.65 per megawatt hour (mwH). *Id*. at 19. During the summer of 2005, prices in the Midwest Independent System Operation Energy Market ranged from $40 mwH to $80 mwH from off-peak to on-peak hours. Replacement power costs would be considerably higher.

Springfield asserts that without the requested relief, Springfield believes it could only implement water conservation measures to lessen the effects of a drought event. Springfield states that severe public health and welfare, fire protection, and economic consequences could occur not only for Springfield, but for 80% of the population of Sangamon County. Springfield concludes that this potential hardship is not justifiable. Pet. at 19.

Springfield points to a 1983 study of nine major Springfield employers to determine monetary losses resulting from a cutback in water delivery. Pet. at 20. The study found that two of the nine companies would have to stop production when experiencing a 50% decrease in water supply, and at a 75% decrease, an additional four companies would have to cease production. *Id*.

CONSISTENCY WITH FEDERAL LAW

Springfield states, and the Agency agrees, there are no applicable federal laws or regulations that preclude granting the instant variance request. Ag. Rec., par. 11.

DISCUSSION

Finding of Arbitrary or Unreasonable Hardship

As the Board has observed previously, this matter:

> [I]s unusual among matters before the Board in that [it] involves not a weighing of the cost of a pollution control facility versus the environmental gain which accrues from its presence, but rather a weighing of two matters of public injury. On the one hand there is the injury that Springfield's citizens would suffer in the absence of an adequate water supply; on the other hand there is the injury that the public environment of the Sangamon River would suffer. City of Springfield v. IEPA, PCB 88-113, slip op. at 9-10 (Nov. 29, 1988).

The Board has also previously observed that Springfield faces a substantial hardship if it cannot proceed with its plans for securing an emergency water source for its residents and other customers who rely upon it. This hardship stems not only from the inconvenience associated with a less-than-abundant water supply, but more critically from the public health and safety risks plus economic losses that are associated with an inadequate public water supply. City of Springfield v. IEPA, PCB 88-113, slip op. at 10 (Nov. 29, 1988).

While the Board recognizes that the temporary dams may stress the Sangamon River fishery, the Board also notes that the Sangamon River fishery may be even more stressed in

times of drought without the temporary dams. Further, both Springfield and the Agency agree that exceedences of the DO standard may be inevitable even under natural conditions. Finally, the Board finds that the economic hardship that Springfield would experience, such as businesses ceasing operations or Springfield purchasing power at a high cost to consumers, would constitute an unreasonable hardship given the feasible alternatives. Thus, based on the facts before it, the Board concurs with the Agency's analysis, and finds that Springfield would suffer an arbitrary or unreasonable hardship if denied the requested relief. Accordingly, the variance will be granted, subject to conditions as recommended by the Agency, and as the policies of the Act require.

Conditions

Both parties agree that construction of Hunter Lake, the long-term solution to Springfield's water shortages, may require more than five years for completion. Pet. at 32-33; Ag. Rec., par. 14(b). Nevertheless, both parties also are aware that variances of terms longer than five years are not permitted under the express terms of the Act (415 ILCS 5/36(b) (2004)). Ag. Rec., par. 14(b); Resp. at 1. For this reason, the Board grants the variance for a term of five years.

The Agency recommends and Springfield agrees to remove any temporary dams built pursuant to this variance when normal lake levels return. Ag. Rec., par. 15(a); Pet. at 6.

Springfield proposes, and the Agency agrees, that a minimum release of 41 CFS be maintained from the dams. Pet. at 11; Ag. Rec., par. 15(e). In accordance with Springfield's previous variances, the Board will impose this condition attached on this variance.

Springfield observes that populations of the more prized fish species migrate away from low DO waters. Pet. at 22. Yet Springfield contends that fish lost due to presence of the dams "would have negligible value." *Id*. In response, the Agency specifically requests that the Board add a condition to the variance that Springfield must mitigate any fish kills with the DNR. Ag. Rec., par. 13. Springfield responded by accepting the Agency's suggestion. Resp. at 1. Consistent with Springfield's prior three variances, the Board includes that condition in today's order.

Springfield has successfully relocated the point of discharge of its clarification pond subsequent to the PCB 00-179 variance. The Agency requests that Springfield continue to supplement Lake Springfield with recirculated clarification pond water generated at Springfield's electrical utility. The Agency believes that such supplementation may lessen the need or duration of damming the Sangamon River. Ag. Rec., par. 14(c). Springfield also concurred with this suggestion. Resp. at 1.

The Board finds that supplementation with the recirculated clarification water is an effective means to supplement water in Lake Springfield while maintaining minimum environmental impact. The Board includes this condition in today's order. The Board notes that Springfield's National Pollutant Discharge Elimination System (NPDES) permit addresses compliance with the boron water quality standard. Pet. at 36-37.

In the past variances granted to Springfield, the Board has conditioned the grant of variance with a requirement that Springfield monitor DO conditions both above and below the Sangamon River dam, and with a requirement that Springfield follow mandatory water conservation measures for as long as the temporary dams are in place. The Agency recommends that the Board again include these conditions in this variance, and Springfield agrees. Ag. Rec., par. 15(f); Resp. at 1. The Board agrees, and includes those conditions in today's variance.

Lastly, the Agency recommends that the variance contain a condition that Springfield develop a "more restrictive water use ordinance and other more stringent conservation measures that will be required in the event of a drought." Ag. Rec., par. 14(d), 15(c). While the Board understands the Agency's concern, the Board does not condition the grant of this variance on the implementation of more restrictive water conservation measures. Rather, the Board leaves the manner in which Springfield regulates the water use of its constituents to Springfield's discretion.

CONCLUSION

Springfield has shown much progress towards establishing a long-term water supply that will eventually eliminate the need for a variance from the Board's DO water quality standard. The Board finds, however, that Springfield will not secure the long-term water supply during this five-year variance term. For the reasons described above, the Board grants Springfield a five-year variance from the Board's DO water quality standard found at 35 Ill. Adm. Code 302.206.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

City of Springfield (Springfield) is hereby granted a variance from 35 Ill. Adm. Code 302.206 as it applies to dissolved oxygen in the following portions of the Sangamon River: (1) the six-mile pool created on the Sangamon River by the temporary dams; (2) the 5.5-mile pool on the South Fork of the Sangamon River created by the temporary dams; (3) the South Fork below the dam to its confluence with the Sangamon River; and (4) up to 12.17 miles downstream of the temporary Sangamon River dam to the rock and crib dam (between river mile 85.24 and 73.07). Springfield's variance is subject to the following conditions:

1. This variance expires on September 7, 2011, or upon Springfield receiving a second water supply source, whichever occurs first.

2. Springfield must remove any temporary dams constructed (one on the Sangamon River and one of the South Fork River) when average lake level, provided in Petition Exhibit 2, returns.

3. 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.

4. Once the proposed temporary dams are in place, Springfield must assure a minimum release of 41 cubic feet per second of water over the Sangamon River dam.

5. Springfield must mitigate with the Illinois Department of Natural Resources any losses of fish that occur as a result of constructing, maintaining, or removing the dams.

6. Springfield must monitor 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. Springfield must submit the results of such monitoring to the Illinois Department of Natural Resources, Division of Water Resources and the Illinois Environmental Protection Agency on a monthly basis or upon request.

7. Springfield is 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 Lake Springfield.

8. If Springfield chooses to accept this variance, within 45 days of the grant of the variance, Springfield must execute and forward the attached certificate of acceptance and agreement to:

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

IT IS SO ORDERED.

If the petitioner chooses to accept this variance, it must, within 45 days after the date of this opinion and order, file with the Board and serve on the Agency a certificate of acceptance and agreement to be bound by all the terms and conditions of the granted variance. "A variance and its conditions are not binding upon the petitioner until the executed certificate is filed with the Board and served on the Agency. Failure to timely file the executed certificate with the Board and serve the Agency renders the variance void." 35 Ill. Adm. Code 104.240. The form of the certificate follows:

CERTIFICATE OF ACCEPTANCE

I (We), _____, having read the opinion and order of the Illinois Pollution Control Board in docket PCB 06-137, dated September 7, 2006, understand and accept the opinion and order, realizing that this acceptance renders all terms and conditions of the variance set forth in that order binding and enforceable.

_____
Petitioner

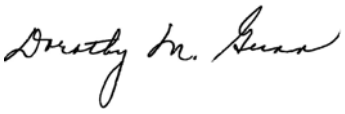
_____
Authorized Agent

_____
Title

_____
Date

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2004); see also 35 Ill. Adm. Code 101.300(d)(2), 101.906, 102.706. Illinois Supreme Court Rule 335 establishes filing requirements that apply when the Illinois Appellate Court, by statute, directly reviews administrative orders. 172 Ill. 2d R. 335. The Board's procedural rules provide that motions for the Board to reconsider or modify its final orders may be filed with the Board within 35 days after the order is received. 35 Ill. Adm. Code 101.520; *see also* 35 Ill. Adm. Code 101.902, 102.700, 102.702.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on September 7, 2006, by a vote of 4-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board