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January 5, 2009

Sent via email to wayne.hannel@usace.army.mil

District Engineer
U.S. Army Corps of Engineers, Rock Island District
Attn: OD-P (Wayne Hannel)
Clock Tower Building- PO Box 2004
Rock Island, IL 61204-2004

Re: CEMVR-OD-P-2007-327, City of Springfield, Illinois, Hunter Dam & Reservoir

Dear Mr. Hannel:

The Illinois Chapter of the Sierra Club and Prairie Rivers Network object to the proposal to grant a Section 404 permit to the City of Springfield for the construction of a dam on Horse Creek to create a new water supply reservoir. Sierra Club and Prairie Rivers Network members live in the Sangamon River watershed and depend on clean waters in its Horse Creek and Brush Creek tributaries for recreational activities including fishing, birdwatching and other wildlife viewing.

Description of Proposed Project and Impacts

The project proposes to construct a 1700 foot earthen dam on Horse Creek which will create a 3010 acre reservoir that will inundate the present confluence of Horse Creek with Brush Creek. Lost aquatic resources include 102 acres of wetland, 88.3 acres of stream channel and 4 acres of ponds. In addition, 1526 acres of nonwetland forest will be inundated.

In addition, there are aquatic resources impacts from the proposed sewer pipeline planned to divert wastewater effluent from the towns of Virden, Divernon and Pawnee. The proposed 29.6 mile long pipeline will necessitate 18 stream crossings. The USACE notice states that 33 acres of wetland impacts are anticipated.

Because of concerns that Hunter reservoir will cause flooding in the Village of Pawnee, channel modifications to Horse Creek and Henkle Branch are also planned, including relocation of a 0.92 mile segment of Horse Creek, the widening of Horse Creek and Henkle Branch with impacts estimated on 5 acres of wetlands and 4850 feet of stream. The USACE notice describes this as impacts to 4050 feet of Horse Creek and 800 feet of Henkle Branch. Of this, 850 feet of Horse Creek will be abandoned and replaced with a 600 foot new channel. Additional impacts will be from stream widening: 800 feet of Henkle Branch and 3200 of Horse Creek, upstream and downstream of the new channel. The construction of a levee to protect Pawnee High School from Horse Creek is also being considered.

The proposed project is not consistent with the 404(b)(1) Guidelines

Issuance of a Section 404 permit for the proposed project would violate several provisions of the *Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material* (40 CFR § 230), the regulations implementing the USACE's Section 404 permitting program.

The basic precept of the 404(b)(1) Guidelines is that: "dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystem of concern." 40 CFR § 230.1(c). The proposed project will have unacceptable adverse impacts, as described below.

A practicable alternative to the proposed project exists

At 40 CFR § 230.10(a), the Guidelines state that "…no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences." "Practicable" means "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." (40 CFR § 230.1(q))

The applicant has failed to demonstrate that less destructive practicable alternatives exist to provide the 9.1 MGD additional water needed by the City of Springfield during drought situations. (See *Responses to Gravel Pit/Hunter Lake/Water Supply Questions Submitted by Springfield City Council Aldermen, Responses Submitted by City Water, Light & Power, October 27, 2008.*) Practicable alternatives to the proposed project exist in coupling water conservation measures (to reduce demand) with use of gravel pits as a drought water supply. As detailed in Section III of *Prairie Rivers Network and Sierra Club letter to IEPA requesting denial of the 401 certification for Hunter Dam & Reservoir, January 5, 2009 ("401 Comments")*:

- The applicant has failed to consider how federal water conservation standards for plumbing fixtures and appliances will reduce water demand.
- The applicant has failed to evaluate properly how the use of seasonal pricing and water conservation options at its own power plants can be used to reduce water demand.
- The applicant underestimated the potential yields (reported to be 7.4 MGD) of the gravel pits by unnecessarily assuming that water withdrawals during severe droughts would constrained by mining operations even though elsewhere in the Final EIS for the project, the city discusses fee simple acquisition of the pits (and therefore no constraints based on mining operations).

It should be a simple matter for the applicant to provide District staff with revised demand estimates incorporating existing federal water conservation standards and discretionary water conservation measures available to the City (seasonal pricing, conservation at the power plant, and other measures discussed in Section III of *401 Comments*), along with a correct estimate for gravel pit potential yield. Without such an analysis, the District Engineer cannot legitimately make the necessary finding under 40 CFR § 230.10(a)

The proposed project would cause a violation of Illinois' water quality standards for phosphorus in lakes and reservoirs and for dissolved oxygen

The 404(b)(1) Guidelines state that no discharge shall be permitted if it "causes or contributes…to violations of any applicable State water quality standard." (40 CFR § 230.10(b)(1)) As described in Section I of *401 Comments*, the water stored in the reservoir would likely violate Illinois water quality standards for phosphorus in lakes and reservoirs and for dissolved oxygen in the reservoir. Also, the dissolved oxygen standard would likely be violated downstream of the reservoir.

At the public hearing for Illinois EPA's 401 Certification for the project, held on December 3, 2008, Bob Mosher answers with the following when asked whether the Hunter Reservoir will meet the phosphorus water quality standard. (Transcript from December 3, 2008 IEPA public hearing, p. 110) "Will it meet

the phosphorus standard? Probably not. I say that because every impoundment in Illinois that I'm aware of where that phosphorus standard applies is not met. It's a standard that's kind of a wishful thinking. We wish they all met that, but none of them do."

Regardless of the position being taken by Illinois EPA's Water Quality Standards Section Manager on the importance of the water quality standard violations, 40 CFR § 230.10(b)(1) requires that this discharge not be permitted.

The proposed project would contribute to significant degradation of the Sangamon River system
40 CFR § 230.10(c) prohibits discharge of dredged or fill material "which will cause or contribute to significant degradation of waters of the United States. Significant adverse effects on human health or welfare, aquatic life and other water dependent wildlife, aquatic ecosystem diversity, productivity, and stability, or recreational, aesthetic, and economic values, are all effects contributing to significant degradation. 40 C.F.R. § 230.10(c)(1)–(4). These factors *both individually and cumulatively* must be considered when evaluating the specific details of the application.

The proposed project would cause significant degradation of the environment because the proposed mitigation fails to appropriately compensate for functions and services that will be lost by the inundation of Horse Creek and Brush Creek, the wetlands which will be inundated by the reservoir, the impacts to aquatic resources from the proposed sewer pipeline, and stream work proposed in the village of Pawnee. Shortcomings of the mitigation plans are discussed both below, and in Section II of *401 Comments*.

<u>The proposed project is not consistent with the Mitigation Rule</u>

The proposal does not meet the requirements of 33 CFR 332.4(b)(1) that "[t]he level of detail provided in the public notice must be commensurate with the scope and scale of the project," and "the notice must…provide enough information to enable the public to provide meaningful comment on the proposed mitigation."

The USACE reissued the public notice for permit CEMVR-OD-P-2007-327 for construction of the "Hunter Lake" dam and reservoir on December 3, 2008. As stated in the notice this project would: 1) create a 3010-acre reservoir with approximately 95 miles of shoreline; 2) completely and permanently submerge the confluence of Horse Creek and Brush Creeks as well as upstream portions of these creeks; and 3) impact over 200 acres and 4850 linear feet of waters under the jurisdiction of the USACE. Mitigation information provided in 3(c) for pre-FEIS impacts consists of three sentences which provide mitigation ratios and the types of aquatic resources that will be created and/or restored, and a numerical chart that lists impacted and mitigated acreage amounts. In addition, 3(e) of the notice lists project changes made after publication of the FEIS, but fails to provide any written description of mitigation plans for these additional impacts. The numerical chart in the public notice fails to clarify what, if any, of the compensation acreage it includes is mitigation for the post-FEIS impacts.

The public notice includes "Wetland Mitigation Plan Amended" under its list of project changes made after publication of the FEIS, and states "A wetlands mitigation team of various resource agency members…was formed after publication of the FEIS to clarify and quantify the wetland mitigation plan. The following summarizes those findings." However, what follows is the previously-mentioned numerical chart which lacks essential mitigation information.

Given the complexity of the proposed Hunter dam project, and its extensive environmental impacts, the applicant's permit fails to provide mitigation plan information commensurate to the project's scale and scope; the paltry substance of the mitigation information makes it impossible for the public to provide meaningful comment on the project. In addition, the permit fails to provide enough detail about the amended mitigation plan to allow members of the public the opportunity to request a copy for review and comment. We experienced this difficulty first –hand, as responses to our initial calls to USACE and Illinois EPA staff and FOIA requests for additional mitigation plan information were that the project files did not contain any additional mitigation plans; staff also were not able to provide us with a list of documents contained in the files. It was only after receiving Illinois EPA and USACE letters and memos about the project as part of a separate FOIA request did we see references to a 2001 "Revised Mitigation Packet." With this information, we then had to scramble to make additional FOIA requests, which gave us less time to review and comment on this portion of the project's mitigation. At a minimum, the applicant's permit should have been amended prior to its December 3, 2008 re-release to confirm the existence of an amended mitigation plan, as well as contact information for obtaining a copy.

The applicant's mitigation plan fails to meet the requirements of 33 CFR 332.3(f)(1) that: 1) "…[t]he amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions;" and 2) "[i]f a functional or condition assessment or other suitable metric is not used, a minimum one-to-one acreage or linear foot compensation ratio must be used" and the requirements of 33 CFR 332.3(b)(1) that the required compensatory mitigation "should be located where it is most likely to successfully replace lost functions and services…"

The discussions of wetland and stream mitigation in the FEIS, 404 Public Notice, 401 Antidegradation Assessment, and May 10, 2001 Revised Mitigation Proposal contain no information on the ecological and water quality functions provided by the wetlands and streams that will be destroyed, and no evidence that the proposed mitigation sites and mitigation measures will provide equivalent functional performance.

Section 4.1.9 of the FEIS entitled "Mitigation Measures for Hunter Lake Environmental Impacts" contains subsections describing mitigation plans for forested wetlands, emergent wetlands, forest/prairie/natural succession, and stream corridor restoration and enhancement. Most of these subsections state that mitigation activities will provide "diverse habitat;" however, creating diverse habitat does not equal replacing lost wetland and stream functions. The applicant's mitigation plans proposes to create two "large prairie sites" totaling 252 acres. (FEIS, p. 4-18) Again, creation of a different (and non-aquatic) resource area, while admirable, cannot be used as a substitute for replacing lost aquatic functions.

The Antidegradation Assessment states that the project will result in a shift in habitat from a riverine to lacustrine system; when questioned about this major change at the December 3, 2008 public hearing, Bob Mosher, of Illinois EPA, stated 'our approach is that it is a tradeoff that can be made.' (Transcript at p. 112) This statement confirms the Illinois EPA has failed to properly evaluate the functions and values provided by the impacted headwater streams. Illinois EPA assessment methods are appropriate for third order tributaries with continuous flow and above, not for streams such as Brush Creek and Horse Creek. Illinois, unlike neighboring states, does not have a headwater stream evaluation in place. Headwater communities function very differently than wadable permanent streams. Although they do not have a high biological diversity, this does not mean that they are not valuable. Their value has to be graded by structural and functional contributions they make to their downstream communities. (Where Rivers Are Born; Meyer, 2001; both referenced in *401 Comments*)

The applicant's permit proposes to create "emerging wetlands" as mitigation for wetland losses on the project site. The FEIS states 36.3 acres of emerging wetlands will be creating by building them "within three coves of the Hunter Lake project area." (FEIS, Section 4.1.9.3, p. 4-18) More specifically, "In-lake water detention structures would be installed at the mouths of the shallow coves such that as Hunter Lake recedes due to natural or induced drawdown, the emergent wetland sites would retain water and maintain hydrologic conditions." (FEIS, Section 4.1.9.3, p. 4-18) Nothing in this description explains how creating these cove impoundments will replace the functions of a natural emergent wetland, nor does it describe how these features will be maintained to ensure continued functioning of these "wetlands."

What publicly available studies have been done to provide assurance that creating wetlands using reservoir coves will – in the words of the Antidegradation Assessment – "retain water and maintain hydraulic conditions" during drawdowns that the FEIS states will be 7 feet in a "typical year" and greater during dry years? The Monitoring Program set forth in the 2001 Revised Mitigation Proposal provides for annual wetland site checks and is not a maintenance plan. During a March 27, 2001 meeting of the mitigation planning group, one member suggested installing an inexpensive water control structure, such as a Dozier valve, in some of the coves. (March 27, 2001 Memorandum of Meeting of Hunter Lake Mitigation Working Group, p. 3) None of the mitigation documents discuss whether or not this device or another would help maintain wetland hydrologic functions within an impounded cove.

Information on mitigation for stream corridor loss is also incomplete. The applicant plans to relocate almost a mile-long segment of Horse Creek to provide some flood protection for the Village of Pawnee; as a result 33 acres of wetlands and 4850 linear feet of stream corridor will be impacted. The permit does not provide any information on mitigation for these wetland and stream losses. The isolated statement in the public notice that "the abandoned channel will remain as wetland habitat" only raises more questions about the applicant's mitigation plans.

Compared to other mitigation sections, the FEIS goes into more detail regarding plans to mitigate for the wetland and stream losses from the inundation of Horse Creek and Brush Creek, but still fails to provide assessments of functions that will be lost and information that supports the plans proposed by the applicant. The applicant calculates that the stream impact amounts to a loss of 449 acres, "assuming a 100-foot corridor along the stream sections" is impacted. Setting aside the question of whether this calculation is reasonable, the FEIS then states the project will create 95 miles (or 815.3 acres) of "lacustrine littoral shore riparian areas." (FEIS, Sections 4.1.9.5, p. 4-19 and 4.1.8., p. 4-10). This assumes, without further explanation, that the created shoreline of the reservoir, an artificial rather than a natural lake, will replace the lost riparian functions. In addition these numbers are inconsistent with those provided in the 404 Public Notice and 401 Antidegradation Assessment, which attribute only 69.1 acres (95 miles of a six-foot wide lacustrine wetland fringe) to this piece of the proposed mitigation.

The second component of this mitigation is the dedication and enhancement of "a prime section of the Sangamon River Valley corridor known as Riverside Park." While explaining what will be done on the park grounds, there is still no explanation or supporting information as to whether this was the best mitigation site choice and the most appropriate mitigation choice.

The most recent mitigation document consists of a memo from Tom Skelly of CWLP dated May 10, 2001 to the Hunter Lake Mitigation Working Group. This memo contains the Revised Mitigation Proposal for the reservoir project. The first two pages provide mitigation information for an additional 25 acres (broken into three individual sites) of wetland mitigation; the next two pages are numerical tables giving

acreage and ratio information for mitigation; the final seven pages contain a Monitoring Program and maps of the additional wetland mitigation sites.

The additional wetland sites are currently used for crops; the mitigation plan proposes to create wet meadows. The plan lists the soil types of the sites, the seed mix to be used and provides a short paragraph on the method for wetland creation (excavating soil and breaking underlying field tiles). After several agencies reviewed the Revised Mitigation Proposal, they provided suggestions which include: 1) consider creating berms instead of excavating site (IDNR June 15, 2001 letter); 2) conduct a thorough investigation of soils on the three proposed sites "to determine the extent and landscape position of the hydric soil inclusions" (USFW June 19, 2001 letter). CWLP's response to these letters was that it will take these suggestions "into consideration…during the plans and specifications phase for wetlands creation on these sites *at such time that this project will move forward*" (emphasis added)(CWLP July 10, 2001 letter).

To respond by saying that consideration of suggestions for mitigation plans (and potential mitigation plan amendments) will wait until the project is approved goes against not only the spirit, but the stated objectives, of USACE regulations that require permits to provide enough information for meaningful public review. It also violates basic NEPA principles.

In addition, there was no information in either the Revised Mitigation Proposal or letters referencing this proposal that indicate whether there was concurrence of the mitigation working group members on the adequacy of the design parameters, planting plan, performance criteria, or other aspects of the plan other than the acreage amounts of proposed mitigation. The findings and agreements of the team should be clarified.

For the reasons provided above, the project's mitigation plans must be amended to include: 1) adequate functional assessment of all aquatic resources that will be impacted; 2) descriptions of how proposed mitigation for wetland and stream destruction will replace lost functions of each of these resources; 3) information that supports mitigation site selection and choice of resource type to be used for mitigation; and 4) clarification on the findings and agreements of the mitigation working team with respect to information provided in the May 10, 2001 Revised Mitigation Proposal. The amended mitigation plan should treat each impacted resource individually and specifically reference each site.

The Performance Standards contained in the Monitoring Program section of the May 10, 2001 Revised Mitigation Proposal do not meet the requirements of 33 CFR 332.5(a) that performance standards "…should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type, providing the expected functions, and attaining any other applicable metrics (e.g., acres)."

The Monitoring Section of the May 10, 2001 Revised Mitigation Proposal contains the only information on performance standards or monitoring of mitigation sites for wetland and stream losses resulting from the construction of the Hunter dam and reservoir. Failure to include any of this information in the public notice or FEIS prevents the public from making meaningful comments on how mitigation sites will be evaluated and monitored.

The Monitoring Program is inadequate as it does not contain or reference any assessments of wetland and stream functions that will be lost as a result of the projects (as discussed in the previous section, this necessary information was not provided in either the public notice or the FEIS). While the applicant has proposed in other documents to create emergent wetlands, forested wetlands and wet meadow wetland

mitigation sites, the performance standards fail to delineate whether its reference to "wetland communities" (Performance Standard 3, page 2 of Monitoring Program) includes all proposed types of wetlands, or only the wet meadow wetlands discussed in the Revised Mitigation Proposal. If it pertains only to the wet meadows wetlands, then the performance standards fail to meet the requirement that it contain criteria that will evaluate whether the wet meadows site is developing and providing the functions wet meadows wetland should. If it pertains to all wetland types proposed for mitigation, then the performance standard is additionally deficient as it does not provide individualized evaluation criteria for each wetland type that will be used for mitigation.

Another deficiency of the performance standards is that none of them provide information or authoritative cites to support the criteria selected. For example, Performance Standard 5 provides: "In at least two out of five years, there should be apparent surface water or saturation present during continuous days for a minimum of 5 percent of the growing season." (Monitoring Plan, p. 2). Are we to assume this standard applies only to the wet meadows wetlands? Without additional information, the public is left to guess how the evaluation criteria were selected and whether that criteria is appropriate for a given mitigation site.

In addition, the Monitoring Program contains no performance standards for the significant impacts to 4,850 linear feet of stream corridor resulting from the relocation of Horse Creek and the widening of Horse Creek and Henkle Branch. If the mitigation working group did not intend to include this loss in the May 10, 2001 Monitoring Program, it must develop specific performance standards for stream mitigation and provide that information to the public.

For these reasons, the applicant's mitigation plan should be amended to: 1) include specific and individualized performance standards for each aquatic resource type that will be used as mitigation; 2) contain criteria designed to evaluate mitigation sites for successful development, as well as replacement of lost functions; and 3) provide supporting information and/or authoritative cites to support evaluation criteria selected.

The information the applicant states it will provide in its monitoring reports fails to meet the requirements of 33 CFR 332.6(a)(1) that "…the content and level of detail for those monitoring reports must be commensurate with the scale and scope of the compensatory mitigation project, as well as the compensatory mitigation project type."

Many of the mitigation plan deficiencies discussed in the previous section also pertain to the applicant's monitoring reports, and will not be repeated here. To summarize, the applicant's permit, FEIS, 401 Antidegradation Assessment and the mitigation and performance standards in the Revised Mitigation Proposal, even when examined as a whole, do not provide sufficient and detailed mitigation information required by the Corp's mitigation regulations. This inadequacy of information is carried over to the applicant's list of items that will be in its monitoring reports.

One of the most glaring omissions of the proposed monitoring reports is its failure to include specific information on evaluations of stream mitigation as a part of the report. The reports should also require each mitigation site be treated individually and include assessment of hydrological conditions and other appropriate factors unique to a particular mitigation resource type. Finally, as with performance standards, decisions on which factors and conditions will be included in a monitoring report should be based on accepted and appropriate practices. During its March 27, 2001 meeting, the Hunter Lake Mitigation

Working Group had a brief discussion on monitoring where members voiced concern over the potential for each mitigation site to need a separate monitoring plan, which could be a "monitoring nightmare." (March 27, 2001 Memorandum of Meeting of Hunter Lake Mitigation Working Group, p. 6) The decision to create individualized monitoring plans for mitigation sites must be made if varying site conditions and types require it, and not be based on personal feelings of the applicant or others involved with the project.

Therefore, the applicant's mitigation plan should be amended to require that monitoring reports contain: 1) information for all mitigation sites; 2) information on each site that is specific to its unique functioning and needs for success; and 3) information to support decisions on required report contents.

Impacts of the dam and reservoir on other factors make the proposed project contrary to the public interest

In addition to the impacts outlined in Section Four of the FEIS, the proposed dam and reservoir will have many detrimental impacts on other factors of public interest in the surrounding area which we describe below. On balance, and coupled with the likely availability of a less damaging alternative, the review required by 33 CFR 320.4 shows the project to be contrary to the general public interest.

Economics
The project includes the removal of three wastewater treatment plant discharges from the Hunter Lake watershed. (Transcript at p. 18) Rerouting the effluent to the Springfield Metro Sanitary District via pipeline is proposed. Yet the details of this part of the project have not been worked out and concerns have been raised about the economic impact on the entities which own and manage these facilities and which determine costs to their customers, including the Virden Sanitary District (Transcript at p. 94-98) and the Village of Pawnee (Transcript at p. 121-127) John Myers, village attorney, reports that the Village of Pawnee has been asked by the City of Springfield to provide $4 million towards the cost of rerouting their wastewater effluent "with no corresponding benefits to the village." (Transcript at p. 123-124)

The proposed project plan also lists potential sanitary sewer service for 460 residences along the proposed pipeline as a benefit. Yet the potential cost to the residents of these homes has not been addressed (Transcript at p. 234-237)

The cost of relocating the Rockies Express natural gas pipeline which crosses the project site does not appear to have been addressed (Transcript at p. 92)

Land which the City of Springfield has purchased and set aside for the reservoir is currently generating $300,000 in revenue for the city which will be lost if the project is constructed. (Transcript at p. 211)

Aesthetics
Numerous commenters at the public hearing presented an alternative vision for the property that would be flooded by the proposed reservoir. See the **Recreation** section below.

Cultural values
The proposed reservoir would flood an area filled with hundreds of sites of Native American and pioneer occupation. This includes the Edwards Trace, an ancient highway that has seen buffalo, Native American

and pioneer migration. Nearly 800 sites of prehistoric and pioneer occupation have been identified. Among the cultural artifacts that would be submerged are the cabin sites of the first settlers in Sangamon County and the still-standing historic Pensacola Tavern, built in the 1830s and the site where Stephen Douglas gave a presidential campaign speech in 1860. (Transcript at p. 49-51, Citizens for Sensible Water Use brochure *Does Springfield Really Need More Water?*) The USACE notice also states that 117 historic properties that are potentially eligible for inclusion in the Nation Register of Historic Places have been identified, including 89 within the pool and shoreline zones.

There are also concerns about how the reservoir will impact a portion of the Joseph Brunk Cemetary but protection measures have not been determined. (Transcript at p. 146-147, 166-167)

Fish and wildlife values
The Friends of the Sangamon Valley have raised concerns about impacts to a diverse mussel bed found downstream of the proposed dam site including dry down impacts while the lake is being filled and scouring impacts after the lake is filled. (Transcript at p. 45) This represents a loss of existing uses and violates Illinois water quality standards. The Friends also presented concerns about the proliferation of bluetongue disease during periods of dry down.

According to a natural area inventory performed by the Friends of the Sangamon Valley in 2000, the project would destroy all of the remaining hardwood floodplain forest in the Brush and Horse Creek watersheds. (Transcript at p. 47) This area is prime habitat for the migratory Indiana bat, habitat that cannot be replaced.

The proposed reservoir would also inundate trees that now serve as a heron rookery. Fish species including the bluntnose minnow, bullhead minnow, quillback, tadpole madtom, and blackstripe topminnow, would decrease in numbers of individuals and several species, such as central stoneroller, striped shiner, redfin shiner, hornyhead chub, bigmouth shiner, sand shiner, suckermouth minnow, creek chub, white sucker, pirate perch, and Johnny darter, would not survive and reproduce in the lake. (FEIS section 4.1.5.1, p. 6)

Flood hazards
The proposed reservoir threatens the Village of Pawnee with flooding, to the point that the project now includes the construction of a second channel for Horse Creek in Pawnee and a levee may need to be constructed at Pawnee High School. (Transcript at pp. 17-18, 80-81)

Floodplain values
As stated in the **Fish and wildlife values** section above, this project would destroy all of the remaining hardwood floodplain forest currently found in the Brush and Horse Creek watersheds.

Shoreline erosion and accretion
The proposed reservoir will be subject to shoreline erosion. Numerous concerns have been raised about the impacts of the proposed pumpage from the reservoir to Lake Springfield on the integrity of the reservoir's shoreline (Transcript at pp. 36, 48, 113).

Recreation
While the proposed reservoir is projected by its proponents to provide lake recreation consisting of fishing and boating, others have presented information on the recreational opportunities that the land in its existing state could provide, including hiking, biking and horseback riding trails through a landscape

filled with history and nature (Transcript at p. 189-190). The additional recreational benefits described in the Antidegradation Assessment of picknicking and hunting could also be provided by the land in its current state.

CWLP plans to divert water from the proposed reservoir to Lake Springfield to maintain Lake Springfield at its average pool depth (Transcript at pp. 150-151) Resulting drawdowns in the proposed reservoir will limit its water-based recreation as aquatic habitat will be exposed and recreational structures such as piers will be impacted. (Transcript at pp. 178, 206) Drawdowns will also adversely impact recreational areas adjacent to the proposed reservoir, such as Pawnee Park (Transcript at p. 115)

Water supply and conservation
This whole project is about water supply, yet numerous entities (including Citizens for Sensible Water Use, National Wildlife Federation, Sustainable Springfield, Sierra Club, Faith Based Network, Prairie Rivers Network) have presented information showing that water conservation is part of a viable alternative to the proposed reservoir. (Transcript at pp. 31-34, 43, 90, 119-121, 208; also see Section III of *401 Comments*) In addition, evaporation losses from the proposed reservoir will waste, not conserve, water. (Transcript at pp.114-115, 188)

Water quality
The proposed project plan lists potential sanitary sewer service for 460 residences currently using septic systems as a water quality benefit. Specifically, 180 septic systems on properties adjacent to Lake Springfield are cited. (Transcript at pp. 18-19) However, septic systems are not currently listed among the sources of the current impairments of Lake Springfield.

The Illinois EPA's Antidegradation Assessment also lists the removal of sewage treatment plant discharges from the watershed as an anticipated benefit. However, this activity could occur independent of the proposed reservoir so should not be considered an inherent benefit of the project. (Transcript at pp. 233-236) In addition, it does not appear that any consideration has been given to impacts which the diverted wastewater will have on the new water body into which it is discharged.

Energy needs
The alternative use of the land which CWLP has acquired as a site for a wind farm has been proposed. (Transcript at p. 189)

Safety
Dams pose safety risks. The proposed dam has been identified as a Class 1 high hazard dam by civil engineer Jerald Jacobs. (Transcript at p. 191)

Food production
Prime farmland will be lost to inundation by the proposed reservoir, resulting in a loss of income to the City of Springfield, the jobs associated with food production on these lands, and the food supply itself. (Transcript at pp. 187-188)

The general needs and welfare of the people
The Hunter dam and reservoir is a costly project, not only for the citizens of Springfield, but also for citizens in surrounding towns. Residents of Springfield will be paying for a water supply well in excess of their projected needs. The economic impacts on the citizens of Pawnee and Virden associated with the piping of their wastewater discharges away from the watershed of the proposed reservoir remains

unknown. The establishment of the proposed reservoir threatens the Village of Pawnee with flooding problems. It will inundate an area filled with sites potentially eligible for inclusion in the Nation Register of Historic Places. The building of the dam creates an unnecessary safety concern. The project will destroy existing riverine, wetland and forest habitat adversely impacting the aquatic life and other wildlife which currently make use of the Horse and Brush Creek corridors and surrounding uplands, and affect the public's enjoyment of the area for fishing and wildlife viewing.

Substantial evidence has been placed into the record on alternatives sources of water supply, including water conservation, which would satisfy the City of Springfield's need for additional water during times of drought. These alternatives should be pursued, not the Hunter dam and reservoir project, the alternative with the greatest environmental and cumulative impact.

Thank you for the opportunity to review the public notice and provide our comments on the proposed 404 permit. Please contact us if you have any questions.

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Sincerely,

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Glynnis Collins
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cc: Illinois EPA Watershed Management Section (sent via email to kurt.neibergall@illinois.gov)
Illinois Dept. of Natural Resources, Office of Water Resources (sent via email to mike.diedrichsen@illinois.gov)
Kenneth Westlake, USEPA Region 5
Linda Holst, USEPA Region 5

Attachments

Prairie Rivers Network and Sierra Club letter to IEPA requesting denial of the 401 certification for Hunter Dam & Reservoir, January 5, 2009

Responses to Gravel Pit/Hunter Lake/Water Supply Questions Submitted by Springfield City Council Aldermen, Responses Submitted by City Water, Light & Power, October 27, 2008

March 27, 2001 Memorandum of Meeting, Hunter Lake Mitigation Working Group

May 10, 2001 Revised Mitigation Proposal

June 15, 2001 IDNR letter

June 19, 2001 USFW letter

July 11, 2001 CWLP letter

Citizens for Sensible Water Use brochure *Does Springfield Really Need More Water?*