RECREATIONAL NEEDS

Proponents of Hunter Lake, apparently realizing water needs alone do not justify the project, added in 2018 the claim that the Springfield region requires more surface water for boaters. The claim is questionable. Area lakes, particularly Sangchris Lake, are far from fully used. And fishing opportunities could be expanded more effectively and cheaply by enhancing public access to shorelines and adding fishing piers. Many options exist to expand canoeing and kayaking on the Sangamon. Further, if Hunter Lake is halted, the nearly 8,000 acres set aside for it could be opened to the public and developed for hiking, jogging, camping, birding, and more. Ironically, Hunter Lake would add surface water recreation space by destroying an equal or larger area of on-land recreation space.



Edwards Trace is an historic trail that runs along the Hunter Lake site

THE QUESTION FOR SPRINGFIELD

City leaders have acted wisely by monitoring water needs and preparing for both growth and drought. But fairly assessed, Lake Springfield is more than adequate to meet future needs, even during extreme drought. Meanwhile, the city can identify far cheaper water-supply options and hold them in reserve. A new, 8,000-acre nature and recreation area would heighten Springfield's appeal. Higher water rates would do the opposite.

Cities are wise to prepare for natural disasters. But evaluations must rest on sound facts and science. As for climate change, the best models predict that Central Illinois will become wetter in coming decades, not drier. While more rain may fall in winter with drier summers, the timing of annual rains makes no difference for a city like Springfield with a sizable reservoir (or two reservoirs, including Sangchris Lake). Locally, climate change is making extreme drought less likely, not more so. The water-supply options proposed above would provide Springfield with all the water security it could need.

RECONSIDERING HUNTER LAKE

Nearly 8,000 acres of land were purchased decades ago in anticipation of a new reservoir. Long off limits to the public, these acres and their 45 miles of streams have become richer in plant and animal life. They could become one of the largest parks in central Illinois. Springfield citizens could help design it.



PROTECTING WATER HEALING LAND & INSPIRING CHANGE SINCE 1967

Springfield officials have long worried about future water shortages should the City grow substantially and then encounter extreme drought. They have proposed Hunter Lake, a new 2,500 acre reservoir, as the way for a future, more populous Springfield to avert such an event and survive a 100-year drought without additional water conservation measures. Hunter Lake would be an expensive safety net, flooding thousands of acres and significantly increasing water rates. Is it needed, and would be worth cost of \$350,000,000?

FUTURE WATER NEEDS

Proponents of Hunter Lake fear an 18-month drought could leave an enlarged Springfield short of water by some 12 million gallons per day (mgd). The case for the new reservoir rests on this scenario and on particular water estimates. Is this projection, set in 2065, a plausible one?

A few relevant facts:

- Springfield's total water usage has declined from 35 mgd in 2012 to 19 mgd today, mostly due to power plant closings. 2012 was a dry year, yet Lake Springfield remained nearly full.
- For the past 50 years Springfield's use of treated water has remained steady, despite population growth of 20%. The reason: households and businesses have shifted to plumbing fixtures and appliances that use less water, a trend likely to continue.

- The feared 12 mgd shortfall in 2065 assumes water consumption by households and businesses will have increased considerably, by over 5 mgd. Yet, even if Springfield does return to historic growth rates, a sounder estimate is that water use in 2065 will be no more than today, given continued shifts to more efficient fixtures among other factors. Indeed, water usage over time could decline since the biggest user, the Dallman power plant (2.5 mgd), will likely retire by 2045. A better prediction is that this component of water usage will remain flat, a scenario that, when accepted, reduces the projected 12 mgd shortfall to 7 mgd.
- Another 6 mgd of this projected 12 mgd shortfall is attributed to hoped-for new water users—chiefly a huge new power plant and a new ethanol plant–plus new demands by surrounding communities to tap into Springfield's water. But these water uses—all hypothetical—will become less likely if water rates increase dramatically to pay for Hunter Lake. Indeed, higher rates could lead big users to seek out alternative sources of water, further decreasing demand and raising the bills of Springfield residents even higher. The way to attract businesses is to keep water rates low.

SOURCES OF WATER

The claimed need for Hunter Lake must also be scrutinized in terms of the projected water-supply numbers. The feared 12 mgd shortfall rests on the flawed Lake Springfield presumption that cannot be fully used to meet water needs in worst-case times, and that only 12 of the Lake's 20 feet of water can be used. But there is no sound justification to leave so much water untouched in an extreme emergency. When calculations start with this alternative assumption, the Lake's current water increases nearly 6 vlague mad. Springfield has several low-cost ways to expand its water supply without need for any major construction.

- Sangchris Lake is the most appealing option. Its waters flow down the South Fork to an existing pump station that, when needed, sends the water into Lake Springfield. The South Fork's water flow will increase substantially by 2027 when the adjacent power plant closes and frees up an additional 5 mgd. As a further preparation for extreme drought the City could secure the right to pump water over the dam at Sangchris Lake.
- Seven gravel pits along the Sangamon River provide excellent sources of groundwater. Easily installed pumps and above-ground piping could furnish the City with 9.1 mgd of new water—and even more than that, if ever needed, by diverting Sangamon River water into the pits. The City could purchase these gravel pits immediately, holding them in reserve for worst-case possibilities. They could continue to be leased for mining since water pumping need not interrupt mining.
- There are additional ways to increase supply or decrease demand. An emergency dam could be installed on the Sangamon (engineering plans already exist) to pump river water into Lake Springfield (see the above numbers on the Sangamon's abundant flow). Also, a major consumer such as the Dallman power plant could use treated wastewater for cooling rather than purified water from Lake Springfield. Further, dredging part or all the Lake over time would expand its storage capacity while improving water quality (a costly option, but one with water quality and public health benefits).

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The Sangamon River's capacity dwarfs any projected shortfall. The Sangamon River flow through Springfield has averaged 1,530 mgd over the past 10 years (75 times the City's current water usage). It declined to 200 mgd during the dry year of 2012 and to 70 mgd during the drought year of 1954.

Lake Springfield is now kept full. When rainfall alone fails to do the job water is pumped in, from the nearby South Fork of the Sangamon River. Predictions for an 18-month drought are modeled on the 1953-54 drought, but the water supply at that time was stressed largely due to poorplanning;the lake level was artificially low when the drought started. The lesson was learned: keep the lake full.

Sangchris Lake, almost exactly the size of the planned Hunter Lake, was built as a water supply reservoir for a large power plant. That plant will retire in 2027 leaving water available for Springfield to use. Sangchris Lake can fill the role of Hunter Lake!

In addition to providing a reserve water supply, gravel pits along the Sangamon would offer alluring recreation options.