

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Nora Mead Brownell, and Suedeen G. Kelly.

Midwest Hydro, Inc.

Project No. 287-011

ORDER DENYING REHEARING

(Issued November 3, 2005)

1. On June 1, 2005, the Commission issued a new license to Midwest Hydro, Inc. (Midwest) for the continued operation and maintenance of the 3.68-megawatt Dayton Hydroelectric Project No. 287, located in Illinois on the Fox River.¹ On July 1, 2005, the Environmental Law and Policy Center and the Sierra Club (petitioners) jointly filed a request for rehearing,² arguing that the Commission erred in requiring a 20-cubic-foot-per-second (cfs) rather than a 260-cfs minimum flow for the project's bypassed reach. As discussed below, this order denies the request for rehearing.

Background

2. Dayton Dam is 23 feet high and 594 feet long. It is the lowermost dam on the Fox River, located 5.5 miles above its confluence with the Illinois River. Water from the project's impoundment is diverted into a power canal along the west river bank to the powerhouse and released back into the river 900 feet below the dam. The bypassed reach of the river is 900 feet long and approximately 300 feet wide.

3. In the bypassed reach, large cobbles, small boulders, gravel, and sand overlay an area of sandstone bedrock about 600 feet long and 200 feet wide that extends from the west bank toward the east bank. When flows in the bypassed reach are low, this portion

¹ Midwest Hydro, Inc., 111 FERC ¶ 61,327 (2005).

² The Illinois Department of Natural Resources and the Friends of the Fox River also joined in the rehearing request. However, the Commission's tolling order, issued on August 1, 2005, rejected the request for rehearing as it pertained to these two entities because they were not parties to the relicensing proceeding as required by section 313(a) of the Federal Power Act (FPA), 16 U.S.C. § 8251(a).

of the reach is exposed, and water is restricted to a channel along the east bank. Although the prior license did not require any flows for the bypassed reach, Midwest has been releasing 20 cfs into the reach on a voluntary basis since 1998.

4. Midwest's relicense application proposed to continue the 20-cfs minimum flow release. In the relicensing proceeding, the Illinois Department of Natural Resources (Illinois DNR) and the U.S. Department of the Interior (Interior) recommended a minimum flow of 260 cfs,³ which represents the 7Q10 flow for the Fox River.⁴ Petitioners, on the other hand, asked that the relicense application be denied and the Dayton Dam be removed to restore the river's natural flow. In the alternative, they argued that a minimum flow of 612 cfs, which represents "natural flow," is needed to "fully protect" the Fox River.⁵

5. The relicense order concluded that, given the health and diversity of the Fox River fishery in the project area,⁶ the relatively short length of the bypassed reach, its lack of critical habitat, and the results of a visual demonstration flow study, a 20-cfs flow to the bypassed reach would adequately protect the fishery resource. The order also explained that the 7Q10 flow is used to determine the flow needed to dilute point source pollutants entering the stream, and is not the ideal method for determining flow needs for aquatic organisms.⁷ Article 403 of the new license accordingly requires a minimum flow of 20 cfs in the bypassed reach.

³ Interior initially asked for a "moderate" flow of about 302 cfs, but subsequently revised its recommendation to 260 cfs, the same as Illinois DNR's.

⁴ The 7Q10 flow is calculated as the lowest consecutive 7-day streamflow that is likely to occur in a 10-year period.

⁵ See Environmental Law and Policy filing of March 18, 2004, at 7.

⁶ As explained in detail in the relicense order, 111 FERC ¶ 61,327 at P 9, the river in the project area is host to 63 different species of fish and is an excellent location for recreational fishing. Shad and carp have been observed in the main channel of the bypassed reach, and adult walleye and schools of shiners in the bypassed reach's cobble/boulder areas bordering the main channel.

⁷ See *Id.* at P 27 and n. 9.

Discussion

6. On rehearing, petitioners argue that a flow of 20 cfs is inadequate to protect the fishery in the bypassed reach. They now support a 260-cfs minimum flow, rather than the 612 cfs they advocated in the relicense proceeding.⁸ For the most part, petitioners reiterate arguments raised in the relicense proceeding and addressed in the relicense order. Except as discussed below, they present no new information or arguments that warrant further discussion.

A. Adequacy of Flow Study

7. On rehearing, petitioners contend that the minimum flow requirement in the license is not supported by the record. Specifically, they argue that the Commission erred in relying on a visual analysis of bypassed reach flows to determine an appropriate minimum flow to protect the fishery in that reach. Rather, petitioners assert, the Commission's decision must be based on a quantitative analysis of the effect of various flows on the habitat in the reach. We disagree.

8. The Commission has relied on both quantitative instream flow studies such as the Instream Flow Incremental Methodology (IFIM)⁹ as well as more qualitative studies such as visual demonstration flow studies, like the one done here, to resolve flow issues at licensing.¹⁰ We consider the results of any study to be more reliable when there is good

⁸ Petitioners explain that they “actually recommended a flow as close to the 612-cfs natural flow as possible, but certainly agree with the [Illinois] DNR and [Interior] that a 260-cfs level is significantly more adequate than the wholly insufficient 20-cfs level... .” Request for rehearing at n.5.

⁹ The IFIM is a tool developed by the U.S. Fish and Wildlife Service to evaluate the relationship between flow and physical habitat for various life stages of an aquatic organism or recreational activity.

¹⁰ It is not unusual for scientific studies to be conducted through visual observations. *See, e.g., Puget Sound Energy, Inc.*, 81 FERC ¶ 61,354 (1997) (resource agencies using visual habitat observations to confirm IFIM studies); *City of Albany, Oregon*, 111 FERC ¶ 62,154 (2005) (approving plans for evaluation of fish screens and fishways including visual observations); *Christopher and Eileen Kruger*, 101 FERC ¶ 62,194 (2002) (referencing visual study of natural flows); and *Rochester Gas and Electric Corporation*, 91 FERC ¶ 62,010 (2000) (monitoring of drawdowns to include visual observations).

agreement among the license applicant, resource agencies, and other study participants as to the study objectives, target species, range of flows to be evaluated, and criteria to be used for evaluating the different flows.

9. In this case, Midwest conducted a visual Instream Flow Evaluation (IFE) of the bypassed reach.¹¹ The IFE identified the site and river characteristics and the species of fish that would inhabit the reach, and observed the visual characteristics of various flows released over the dam into the reach and their likely effect on aquatic habitat. The list of target species to be evaluated was developed in consultation with the Illinois DNR. Both the Illinois DNR and Interior were invited to participate in the flow evaluations, although Interior was not present during the study. The IFE, which studied a range of flows between 20 and 100 cfs, concluded that 20 cfs “is sufficient to protect the habitat requirements of ... [the] most common fish species of concern in the Fox River.”¹²

10. In comments on the flow study, neither agency objected to the study method, recommended that additional flows be evaluated,¹³ or proposed that an alternative study be conducted. Instead, Illinois DNR asked for the 7Q10 flow (260 cfs) for the protection of aquatic habitats, which it stated is generally required in Illinois waters; and Interior expressed support for a “moderate” flow of about 302 cfs (which it subsequently lowered to 260 cfs), asserting that the 20-cfs flow recommended by the study was insufficient to maintain aquatic habitats.

11. Petitioners further argue that the 7Q10 method for determining flow regimes is more appropriate than the visual evaluations of the IFE. We disagree. The 7Q10 method is inappropriate for establishing instream flows for fish. It was developed to ensure that water treatment plants do not violate water quality standards. It determines the minimum

¹¹ Instream Flow Evaluation at the Dayton Hydroelectric Project in La Salle County, Illinois, FERC Project No. 287, Great Lakes Environmental Center, prepared December 10, 2002, and filed February 21, 2003, as appendix D to Midwest’s response to Commission staff’s additional information request.

¹² IFE at 2 (Executive Summary). See the relicense order, 111 FERC ¶ 61,327 P 24-27, for a discussion of the study methods and conclusions.

¹³ Petitioners object that the IFE did not evaluate a 260-cfs flow. However, as explained in Commission staff’s January 24, 2005 environmental assessment (EA) for the project, a flow of 260 cfs, while not evaluated in the IFE, would more evenly distribute water along both the east and west channels and would inundate most of the bypassed reach. EA at 22-25.

flow needed to dilute point source pollutants entering a stream without diminishing water quality. “Thus, it requires a high level of sewage treatment but does not address the flow requirements of fish.”¹⁴

B. Adequacy of 20-cfs Minimum Flow

12. Petitioners argue that the Commission did not engage in balancing of values that gives “equal consideration” to environmental concerns as required by section 4(e) of the FPA. They assert that a 20-cfs flow is inadequate because it would leave a large area of the bypassed reach dewatered. The “fundamental point,” they state, is that the dewatering of a significant portion of the bypassed reach “simply cannot be considered the protection and enhancement of aquatic habitat” required by section 4(e) of the FPA.¹⁵

13. Sections 4(e) and 10(a)(1) of the FPA,¹⁶ require the Commission, in acting on license applications, to give equal consideration to the developmental and environmental uses of the waterway on which the project is located. Any license issued shall be such as in the Commission’s judgment will be best adapted to a comprehensive plan for improving or developing a waterway for all beneficial public uses.

14. The equal consideration requirement of section 4(e) is not an “equal treatment” requirement.¹⁷ Rather, this requirement is satisfied when the Commission considers the impacts of the project proposal and action alternatives on all affected developmental and non-developmental resources. The decision to license the Dayton Project, and the terms and conditions included therein, reflect such consideration.¹⁸

¹⁴ *The Instream Flow Incremental Methodology: A Primer for IFIM*, C. Stanaker, et al., National Ecology Research Center, Internal Publication, National Biological Survey, Fort Collins, Colorado, at 99.

¹⁵ Request for rehearing at 4.

¹⁶ 16 U.S.C. §§ 797(e) and 803(a)(1) (2000).

¹⁷ *California v. FERC*, 966 F.2d 1541, 1550 (9th Cir. 1992).

¹⁸ Petitioners contend that the Commission violated section 10(j) by not giving significant deference to the 10(j) recommendation. Rehearing request at 3-4. However, as the court explained in *American Rivers v. FERC*, 201 F.3d 1186, 1205 (9th Cir. 2000), the Commission’s deference to resource agency recommendations “must yield to the Commission’s reasoned judgment in those instances where the parties cannot agree.”

15. The EA evaluated the physical attributes of the bypassed reach and considered the potential environmental impacts to the reach of a number of minimum flow alternatives. The EA also considered the impact of these alternatives on power production.¹⁹ The relicense order appropriately concluded that, although the higher flows recommended by the agencies would provide a greater area of wetted, non-critical habitat than a 20-cfs flow, a flow of 20 cfs in the bypassed reach would provide adequate habitat for the species' life stages residing there. Conversely, a 260-cfs flow was not justified, given the overall health of the fishery, the reach's short distance, its lack of critical habitat, and the substantial negative effect such a flow would have on the project's power benefits.²⁰

16. Petitioners claim that an Illinois DNR study "plainly states" that "low flow in the bypassed reach is a contributing factor" to lower catch rates for smallmouth bass downstream from the dam.²¹ Petitioners however read too much into Illinois DNR's statement.²² The agency does not give the weight to low flow effects that petitioners would have us believe. To the contrary, Illinois DNR itself acknowledges that "it is difficult to determine the factors responsible for lower catch rates of smallmouth bass in the [downstream] Dayton to Ottawa segment of the Fox River."²³ Moreover, the agency says that habitat and water quality are not limiting factors, that is, an increase or improvement in habitat or water quality theoretically would not improve catch rates. At the same time, it says that low flows should be considered as a contributing factor to low smallmouth bass catch rates, the premise being that higher flows would improve habitat and water quality. It is difficult to reconcile these two ideas. Further, Illinois DNR seems to place too much significance on the bypassed reach, especially in light of its small size and Illinois DNR's admission that it contains no critical habitat.

¹⁹ EA at 19-24 and 51-52.

²⁰ 111 FERC ¶ 61,327 at P 29.

²¹ Request for rehearing at 4.

²² See Illinois DNR's filing of April 25, 2005.

²³ *Id.* at 6.

The Commission orders:

The request for rehearing filed on July 1, 2005, by the Environmental Law and Policy Center and the Sierra Club is denied.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.