

DEAD RIVER

DEAD RIVER HYDROELECTRIC PROJECT (P-10855)

A. SUMMARY

1. License Issued: October 4, 2002
2. Expiration: September 30, 2042
3. Waterway: Dead River
4. Capacity: 15.5 MW (megawatts)
5. Licensee: Upper Peninsula Power Company (UPPCO)
6. Counties: Marquette County, Michigan
7. Federal Lands: Project partially located on Ottawa National Forest
8. Developments
 - a. Silver Lake
 - No generation capacity
 - A 1,500-foot-long earthen dam with a spillway, a 15-foot-long outlet structure,
 - Four earthen saddle dikes
 - 1,464-acre Silver Lake reservoir
 - b. Dead River (Hoist)
 - 4,602-foot-long concrete gravity dam with a spillway
 - A 3,202-acre reservoir
 - A 342-foot-long rock tunnel connected to a 193-foot-long steel penstock
 - A powerhouse containing three turbine generating units with a total installed capacity of 5.5 MW
 - The Hoist Development has a 1,000-foot bypassed stream reach
 - c. McClure
 - 1,874-foot-long concrete gravity dam with a spillway
 - A 95.9-acre reservoir
 - A powerhouse containing two turbine generating units with a total installed capacity of 10 MW
 - A 13,302-foot-long penstock, a surge tank; a tailrace, and an electrical substation
 - The McClure development has a 6.1-mile-long bypassed reach
9. Settlement Agreement: N/A

B. IMPORTANT PROVISIONS AND REQUIREMENTS IN LICENSE/SA

1. *Flows* [Reference: License Article 403]
Minimum flow release from Silver Lake dam

Jan – March	15 cfs (cubic feet per second)
Apr	25 cfs or inflow (whichever is less)
May	20 cfs
June	15 cfs
July – Sep	10 cfs
Oct – Dec	15 cfs

Minimum flow downstream of Hoist Powerhouse at 100 cfs

Minimum flow downstream of McClure Powerhouse at 80 cfs (When sufficient flow is available)

In the bypass channel downstream of McClure dam, a minimum flow of 20 cfs after two years of license issuance at the latest.

2. Operations Monitoring Plan [Reference: License Article 405]

The Plan will discuss monitoring of water levels in the lakes as well as minimum flows at each development. Other provisions to be included in the plan are (a) procedures for emergency drawdown and emergency shutdowns, (b) plan for installation of structure at McClure dam that would ensure flows in the bypassed reach of the river and (c) provision for a 3-year test period to determined UPPCO’s ability to comply with requirements regarding water level and flows.

3. Water Temperature [Reference: License Article 406]

Maximum water temperature for discharge:

	From Silver Lake dam, Hoist Powerhouse, and Bypass reach of McClure dam	Downstream of McClure Powerhouse
Jan	38	38
Feb	38	38
Mar	43	41
Apr	54	56
May	65	70
Jun	68	80
Jul	68	83
Aug	68	81
Sep	63	74
Oct	56	64
Nov	48	49
Dec	40	39

4. *Minimum DO Level* [Reference: License Article 407]

Below Silver Lake dam, below Hoist powerhouse and in McClure bypassed	7 mg/L
Downstream of McClure powerhouse	5 mg/L

5. *Shoreline Erosion Control Plan* [Reference: License Article 401]

The Plan to be developed in consultation with MDNR and MDEQ will develop erosion site inventory, identify erosion control methods and specify implementation schedule.

6. *Water Quality Monitoring* [Reference: License Article 408]

After consultation with MI DEQ, MI DNR and FWS, UPPCO will prepare a WQ Monitoring plan that will identify and describe methods, site locations and schedules to monitor temperature, DO, sediment parameters and other WQ parameters.

7. *Wildlife Management Plan* [Reference: License Article 411]

The Plan will describe the location, number and types of nesting boxes for various species such as osprey, purple martin, bat, owl, common loon etc. It will also include a bald eagle management plan.

8. *Recreation Plan* [Reference: License Article 414]

UPPCO will provide public boating and fishing access at all three reservoirs. Fee public access for bird watching, fishing pier will also be provided under this plan. UPPCO will provide a schedule of construction and will be responsible for continued maintenance of the recreational facilities.

9. *Land Use Plan* [Reference: License Article 4125]

Under this plan, UPPCO will (a) describe methods of land protection and conservation, and (b) continue to prohibit commercial logging within the project boundary. The plan will be updated every five years.

C. OTHER NOTES

1. UPPCO will not require prior Commission approval for activities like
 - a. Landscape plantings
 - b. Non-commercial piers, landings, docks or similar structures that accommodate no more than 10 watercrafts at a time
 - c. Embankments, retaining walls or similar structure for erosion control
 - d. Food plots and other wildlife enhancements
2. The Water Quality Certification issued by MI DEQ has 54 conditions

3. There are two ESA listed species within the project boundary- Bald Eagle and Eastern Gray Wolf. To protect and enhance bald eagle, Department of Interior recommended that the UPPCO develop plans following "The Northern States Bald Eagle Recovery Plan." Similarly, for Gray Wolf, Interior recommended that the UPPCO consult with them and follow the guidelines contained in "Recovery Plans for the Eastern Gray Wolf" and the "Michigan Gray Wolf Recovery and Management Plan. These recommendations are included in the license.

D. PROGRESS IN 2007-2008

After issuance of licenses for the three projects in 2002, water has been put back into a previously dried-up (or bypassed) river channel downstream of the McClure Dam. Since then, a massive failure of Silver Lake Dam damaged or destroyed several other dams, dikes, and bridges. While this accident delayed the implementation of some enhancement projects specified in the settlement, it also potentially opened the door for dam decommissioning. Due to the diligent efforts of the MHRC, FERC imposed requirements on the rebuilding of the Silver Lake Dam, which has raised the bar on rebuilding that dam and others.

UPPCO began scoping for filing a license amendment for the three projects. Since the proposed amendment provides for a major modification in the rebuilding of the Silver Lake Reservoir, FERC has indicated that it will be treating the license amendment under the same standards required for a new license. Because of these requirements, UPPCO has decided not to apply for a license amendment and now plans to rebuild the Silver Lake Reservoir to the current license requirement. On December 3, 2007, UPPCO filed the Draft Agency Consultation Environmental Report for the rebuild of Silver Lake Reservoir. The Agencies and MHRC are reviewing the report.

E. MAP OF DEAD RIVER BASIN

