

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Upper Peninsula Power Company      Project No. 1864-083--MI

NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT

(September 25, 2008)

In accordance with the National Environmental Policy Act of 1969 and the Federal Energy Regulatory Commission's regulations, 18 CFR Part 380 (Order No. 486, 52 F.R. 47879), the Office of Energy Projects has reviewed Upper Peninsula Power Company's proposed shoreline management plan for the Bond Falls Hydroelectric Project, located on the Ontonagon River in Ontonagon and Gogebic Counties, Michigan, and Vilas County, Wisconsin, and has prepared an Environmental Assessment (EA).

A copy of the EA is on file with the Commission and is available for public inspection. The EA may also be viewed on the Commission's website at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number (P-1864) excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll-free at 1-866-208-3676, or for TTY, (202) 502-8659.

Any comments on the EA should be filed by October 27, 2008 and should be addressed to the Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1-A, Washington, D.C. 20426. Please reference the project name and project number (P-1864) on all comments. Comments may be filed electronically via Internet in lieu of paper. The Commission strongly encourages electronic filings. See 18 CFR 385.2001(a) (1)(iii) and the instructions on the Commission's website under the "eFiling" link. For further information, contact Jon Cofrancesco at (202) 502-8951.

Kimberly D. Bose,  
Secretary.

**ENVIRONMENTAL ASSESSMENT**

**Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Administration and Compliance  
Washington, DC**

**Bond Falls Hydroelectric Project  
FERC Project No. 1864-083**

**I. APPLICATION**

Application Type: Bond Falls Shoreline Management Plan  
Date Filed: November 29, 2007  
Applicant's Name: Upper Peninsula Power Company  
Water Body: Ontonagon River  
County and State: Ontonagon and Gogebic counties, Michigan, and Vilas County, Wisconsin  
Federal Lands: The project occupies 73.5 acres of Federal lands

**II. BACKGROUND**

The Federal Energy Regulatory Commission (Commission or FERC) issued a license for the 12-megawatt (MW) Bond Falls Hydroelectric Project (FERC No. 1864) to Upper Peninsula Power Company (UPPCO or licensee) on August 20, 2003.<sup>1</sup> The project is located on the Ontonagon River in Ontonagon and Gogebic counties, Michigan, and Vilas County, Wisconsin, and partially on lands within the Ottawa National Forest (figure 1). The project includes the Bond Falls, Bergland, Cisco, and Victoria

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<sup>1</sup>104 FERC ¶62,135, Order Approving Settlement and Issuing New License (Major Project), August 20, 2003.

impoundments. However, the SMP applies only to the Bond Falls and Victoria impoundments, which are the only two developments experiencing land use pressures and potential impacts anticipated from UPPCO's sale of adjacent non-project lands. The

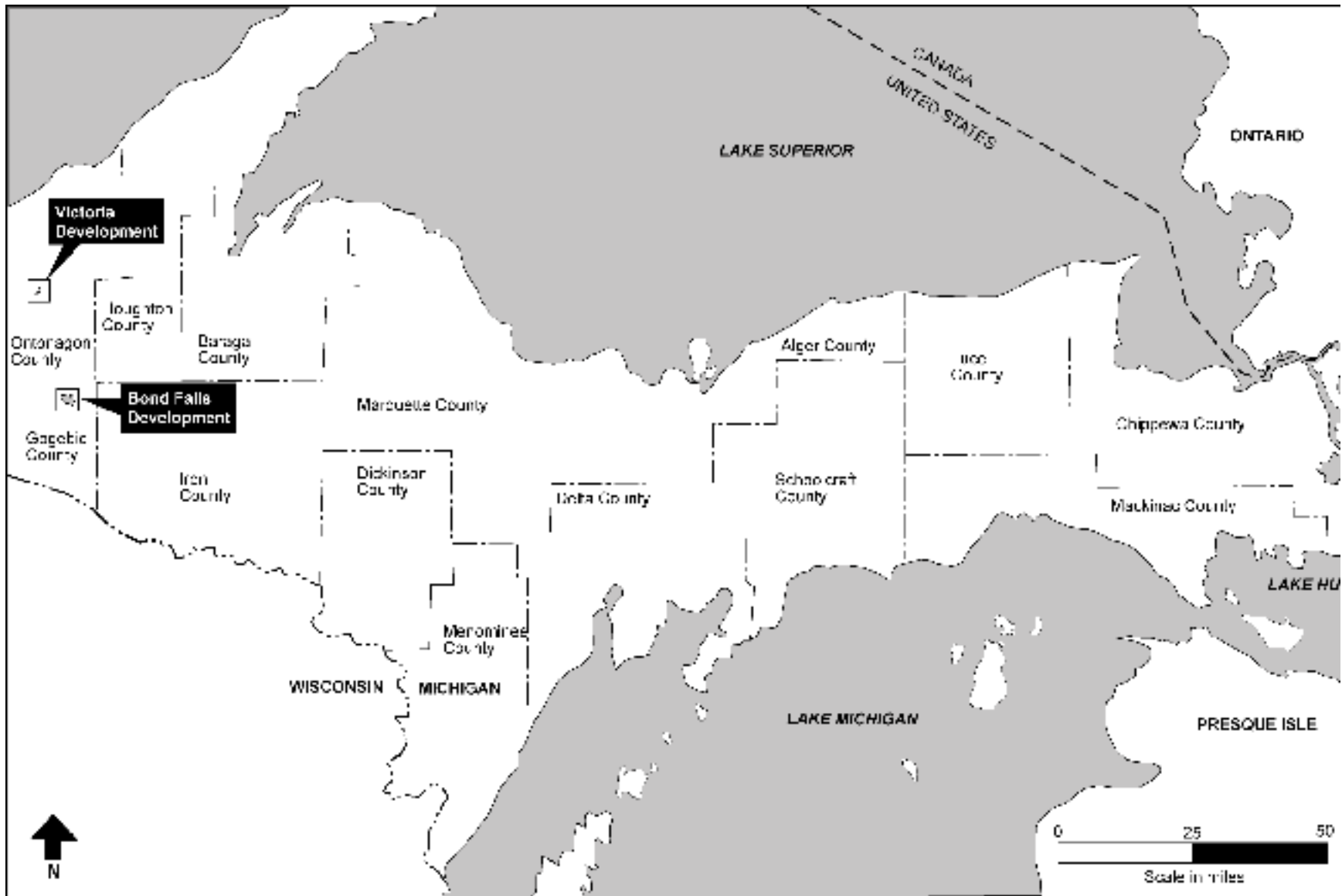


Figure 1. Location map of the Bond Falls Project.

Bond Falls development, located on the Middle Branch of the Ontonagon River, consists of a 45-foot-high, 900-foot-long main dam with a spillway; a 35-foot high, 850-foot-long control dam; the 2,160-acre Bond Falls storage reservoir with a maximum operating elevation of 1,475.9 feet msl; and a 7,500-foot-long canal. The Victoria development, located on the West Branch of the Ontonagon River, consists of a 301-foot-long, 118-foot-high dam; a gated spillway consisting of four concrete bays; the 250-acre Victoria reservoir with a maximum water surface elevation at 910 feet msl; a 9.5-foot-diameter, 6,050-foot-long, above-ground, steel pipeline connecting to a 32-foot-diameter, 120-foot-high steel surge tank, and then dividing into two, 7-foot-diameter penstocks before entering the powerhouse; two 6-MW turbine generator units; a tailrace; and a 1.6-mile-long bypassed reach. The Victoria development has an average annual generation of 72,270 MWh of power.

The project's Bond Falls, Bergland, and Cisco developments provide seasonal reservoir storage and divert river flows to the Victoria development, where the flows are used by the project's sole generating facility, a 12-MW hydroelectric plant. Historically, UPPCO has conducted significant winter drawdowns at Bond Falls (20 feet) and Victoria (14 feet) reservoirs. Cisco and Gogebic reservoirs, where there is substantial shoreline development, have been operated to maintain relatively constant water levels, with modest winter drawdowns.

Pursuant to the project license, UPPCO maintains a minimum flow release of 40 cubic feet per second (cfs) during June, July, and August, and 30 cfs during the remainder of the year at the Bond Falls development. It also diverts water from the Bond Falls reservoir for power generation at the Victoria development. UPPCO maintains specified year-round minimum flows from Bond Falls into the Middle Branch, and reduces the maximum Bond Falls reservoir drawdown from 20 feet to 8 feet.

The total project boundary for the Bond Falls Project includes about 12,954 upland acres. At the Bond Falls development, 1,182 acres of upland land are owned by UPPCO, 73.5 acres (19.5 upland and 54 surface water) are Forest Service lands, and the remaining 1,896 acres are surface water (figure 2). The Bond Falls and Victoria developments contain about 20.2 and 7 miles of shoreline (not including islands), respectively. At Victoria, UPPCO owns the 408 acres, comprising upland property (figure 3). Within the project boundary the licensee has established a buffer zone for all lands within 200 feet of the reservoir.

### **III. PURPOSE AND NEED FOR ACTION**

On November 29, 2007, UPPCO filed a proposed shoreline management plan (SMP) for the Bond Falls Project. The licensee developed the SMP to help address the land use pressures and potential impacts anticipated from UPPCO's sale of adjacent non-project lands (lands located outside of the project boundary and not subject to the terms

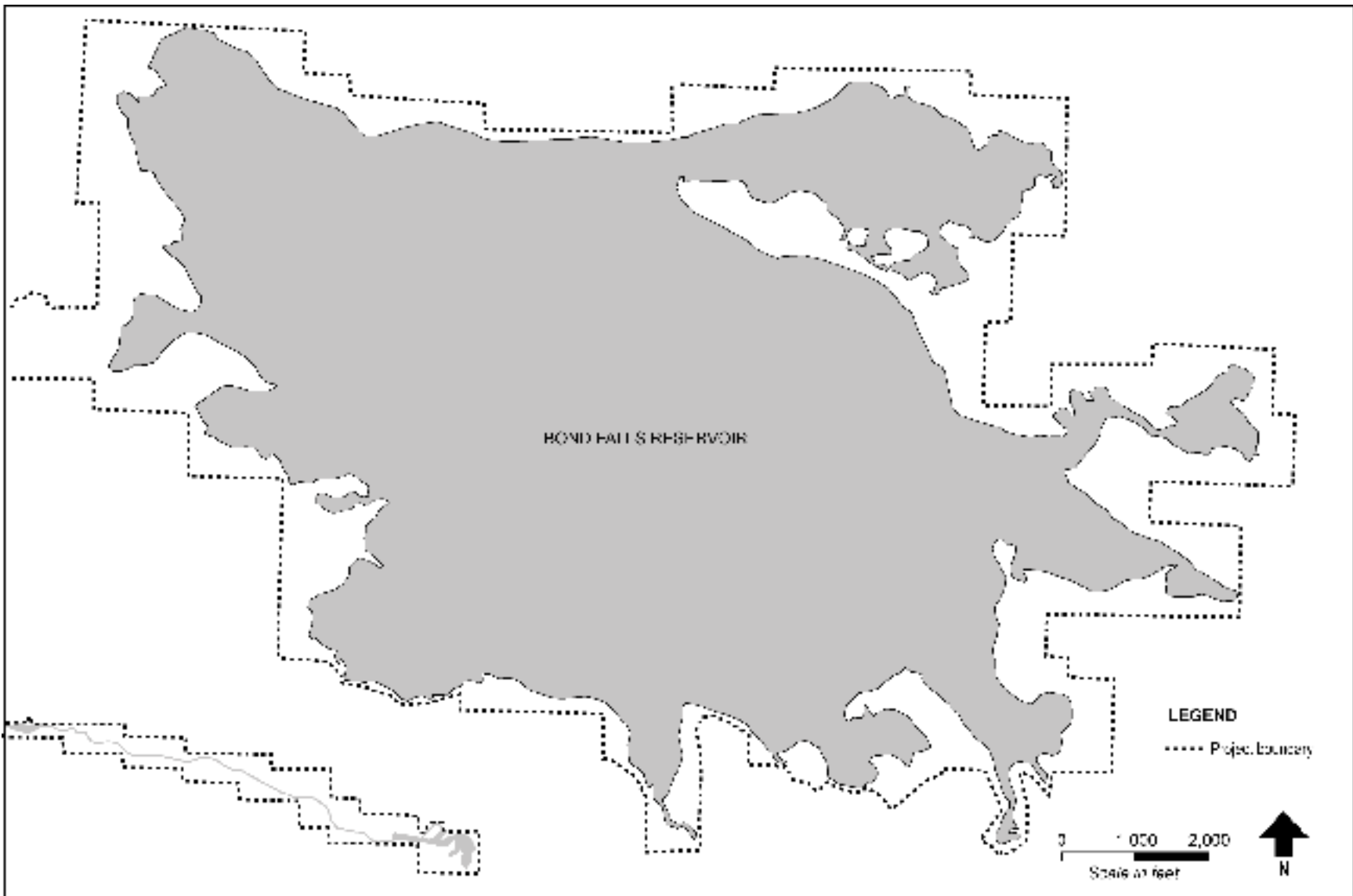


Figure 2. Bond Falls Development boundary map.

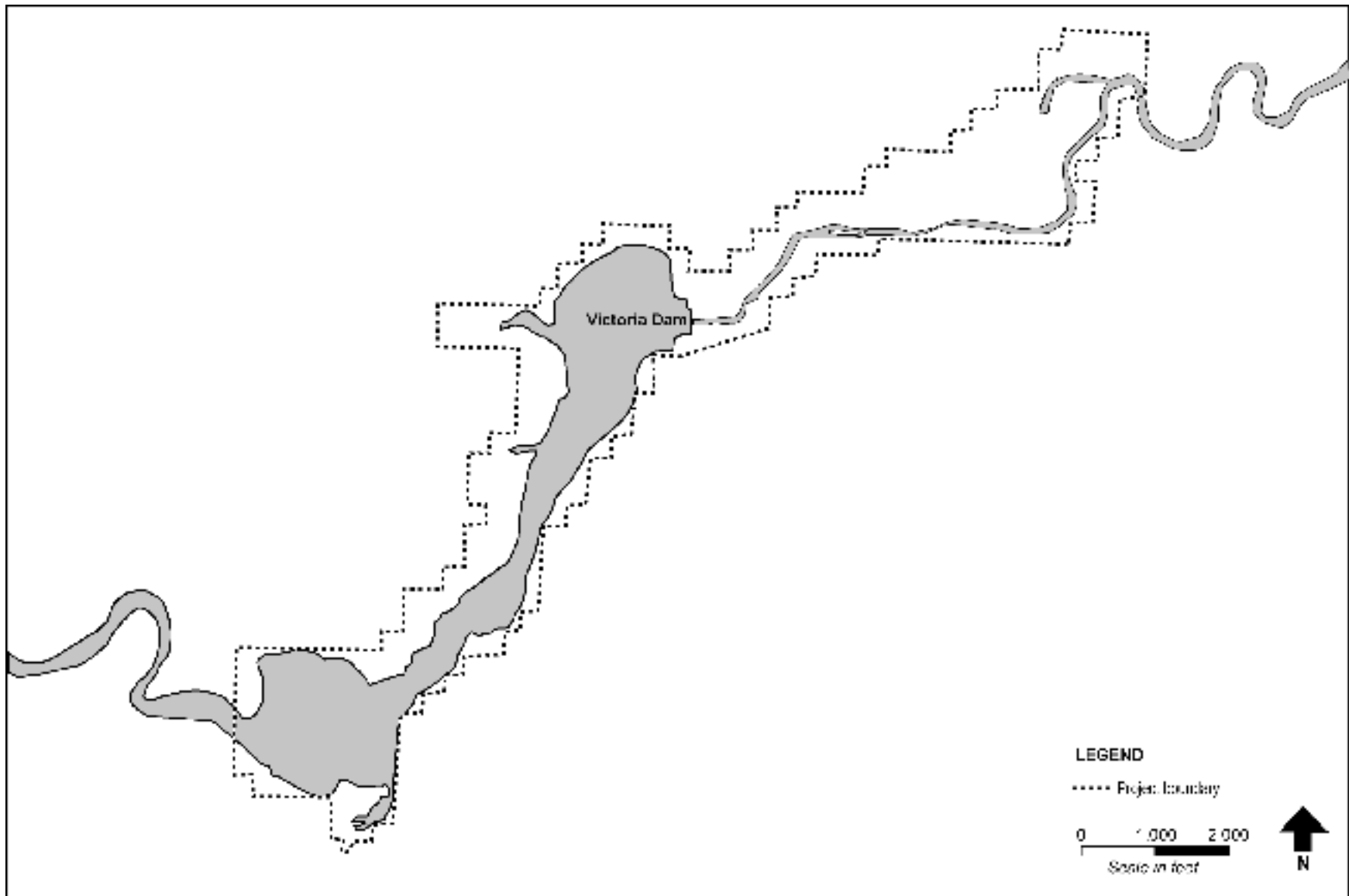


Figure 3. Victoria Development boundary map.

and conditions of the project license) to residential real estate developers. Currently, the licensee manages shoreline resources and development activities at the project through certain license conditions to include the standard land use article (Article 422) and the Historic Resources Management Plan (419) and Commission-approved plans filed pursuant to license requirements (including the wildlife and land management plan [Article 414], buffer zone plan [Article 413], nuisance plant control plan [Article 411], water quality monitoring plan [Article 409], erosion and sediment control plan [Article 410], threatened and endangered species protection and enhancement plan [Article 415], and recreation plan [Article 416]).

UPPCO also is proposing to amend the recreation plan and the buffer zone plan to ensure consistency with the proposed SMP. The Commission must determine whether and under what conditions to approve the proposed SMP and amendment requests.

UPPCO's approved recreation plan<sup>2</sup> for the Bond Falls development includes, among other things, 5 dispersed campsites on islands, 2 designated campgrounds, 2 picnic areas, 3 unimproved and 1 improved boat access sites on the reservoir, and a canoe take-out area near the main dam with directional signage to Agate Falls. Recreational activities at the Victoria development consist primarily of sport fishing and boating. The licensee provides an unimproved public boat launch site next to the dam, a canoe portage from the reservoir to the end of the tailrace, and a parking lot for about 40 vehicles. There are two informal tailwater fishing sites on the north side of the powerhouse and one near the canoe put-in location. UPPCO proposes to amend the recreation plan to include additional recreational enhancements specified in the SMP. Most of these recreation enhancements are not currently required by the project's approved recreation plan. UPPCO proposes these enhancements to accommodate anticipated increased general public recreation use of the reservoir that would inevitably occur and increased use that may occur as the result of anticipated development of non-project lands<sup>3</sup> in the vicinity of the project and increased economic activity in the region. In addition, some enhancements are being proposed to upgrade existing project public boat access sites to conditions would be more user-friendly and, in some instances, barrier free, to meet public expectations for water access. UPPCO also proposes to amend the recreation plan to clarify that recreation enhancements, policies, and development guidelines specified in the SMP are consistent with the objectives of the wildlife management plan.

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<sup>2</sup>113 FERC ¶62,159, Order Modifying and Approving Recreation Plan Pursuant to Article 416, November 29, 2005.

<sup>3</sup>The project boundary must enclose only those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources. Non-project lands are located outside of the project boundary and considered not needed for operation and maintenance and other project purposes.



#### IV. PROPOSED ACTION AND ALTERNATIVES

The licensee is requesting FERC approval of its proposed SMP. The licensee also requests FERC approval to amend the approved buffer zone and recreation plans to ensure consistency with the policies in the proposed SMP.

##### 1. Proposed SMP

The proposed SMP is intended to enhance existing practices and help protect and enhance the reservoir's natural resources and the project's primary function, the production of electricity. The proposed SMP is also intended to provide public recreational enhancements and direct, manage, and mitigate impacts of anticipated development of non-project lands so as to complement or have neutral effects on those natural resources. UPPCO has identified 8 individual and 42 cluster dock locations to accommodate a maximum of 320 private boat slips on the Bond Falls impoundment. A cluster dock would be composed of 2 to 10 slips. UPPCO prohibits the installation of individual and cluster docks at the Victoria impoundment. These private boat slips are intended to accommodate anticipated increased recreational use at the Bond Falls Project. The exact configuration and location of docks would be determined by UPPCO at the time of actual placement, based upon on-site environmental, bathymetric, and topographic conditions. In no case would docks be placed in areas other than those so designated for docks.

The licensee's proposed SMP includes a description of the project and adjacent land uses, current management policies, SMP classification and guidelines, proposed development and recreation enhancements, expected impacts of implementing the SMP on the natural resources in the area, enforcement procedures (permits, oversight), provision for continued consultation throughout the term of the license, and a description of the history and consultation process used in its development. UPPCO developed the SMP in consultation with Resource Agencies,<sup>4</sup> local governments, and non-governmental organizations; and conducted local public outreach sessions. The SMP provides for pedestrian paths and trails, public and private individual and cluster docks, protection of wildlife and fishery habitat, public recreational access to the reservoir, and water quality. The SMP does not provide for any enhanced view areas within these developments due to the fact the project's approved buffer zone management plan contains an old-growth restriction.<sup>5</sup>

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<sup>4</sup>MDNR, Forest Service-Hiawatha and Ottawa National Forests, FWS, National Park Service, Michigan Hydro Relicensing Coalition, and Keweenaw Bay Indian Community.

<sup>5</sup>Personal communication, J Potvin, Louis Berger Group, and S. Puzen, UPPCO, September 2 and 4, 2008.

Three key components of the proposed SMP include its shoreline management guidelines, shoreline classifications and facilities design criteria, and prohibited and permitted shoreline activities.

### Shoreline Management Guidelines

The proposed SMP includes guidelines for prohibited and allowable activities within the shoreline classification zones and provides detailed procedures and criteria for regulating activities within the project boundary. UPPCO states the objectives of the guidelines were developed to protect UPPCO's interests in power generation; protect and enhance the public recreational, public safety, scenic, cultural, and other environmental values of the project; and comply with applicable Federal regulations. UPPCO also states the guidelines were developed to address commercial and residential marina facilities, conveyances, excavations, private facilities, shoreline stabilization, vegetation management, general lake-use policies, and other miscellaneous uses.

### Shoreline Classifications and Prescriptions

In consultation with governmental agencies and with input from local stakeholders, the licensee developed four shoreline classifications for the Bond Falls Project and identified areas of the shoreline to which these classifications would apply (table 1). These shoreline classifications, and associated prescriptions of allowable uses and restrictions, are generally described below and shown in figures 4 and 5.

Table 1. Shoreline classification categories.<sup>a</sup>

Shoreline Classification Area	Percent of Shoreline	
	Bond Falls	Victoria
Conservation – Limited Public Trail Areas	62.3	82.8
Conservation – Limited Public Path Areas	5.2	N/A
General Use/Formal Recreation	15.6	5.7
Project Operations	17.0	11.5

<sup>a</sup> The percentages of shoreline contained in the SMP were measured in feet. The Bond Falls and Victoria developments contain about 20.2 and 7 miles (36,960 feet)miles of shoreline (not including islands), respectively The Bond Falls reservoir has 20.2 miles (106, 656 feet) of shoreline (not including islands). The method used the GIS base layer with a project boundary and surface water overlay. Area was calculated using the GIS system. Any location where the reservoir's surface water came into contact with the project land was considered shoreline. The shoreline estimate includes shoreline on islands and oxbows (personal communication, J. Potvin, Louis Berger Group, and S. Puzen, UPPCO, April 14, 2008).



Figure 4. Shoreline classifications for the Bond Falls Development from proposed Shoreline Management Plan.

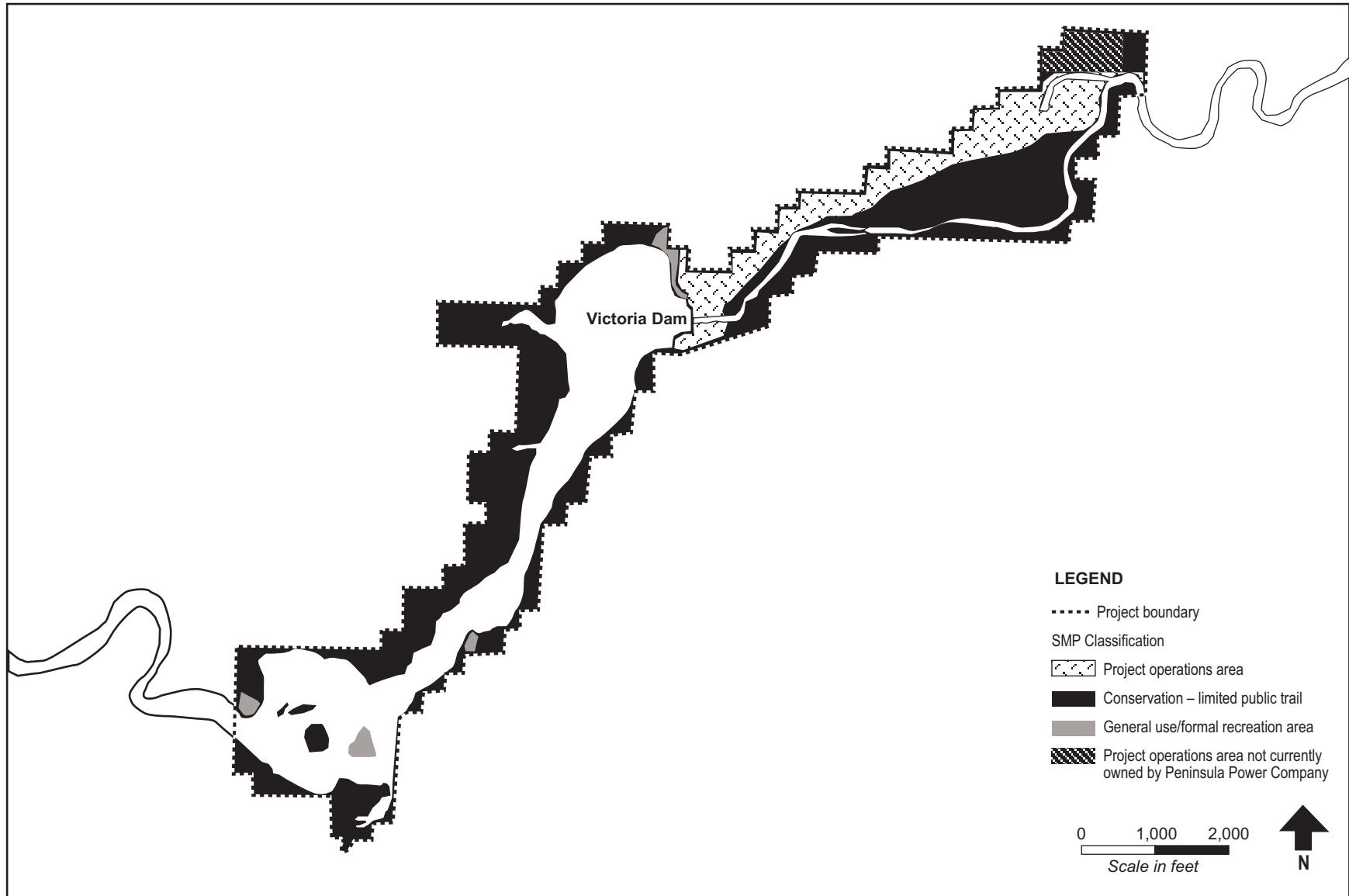


Figure 5. Shoreline classifications for the Victoria Development from proposed Shoreline Management Plan.

The **Conservation – Limited Public Trail Area** classification is assigned to areas within the project boundary that have been set aside for conservation purposes only, in many cases above and beyond current license requirements. With the possible exception of a low-impact public trail at the Bond Falls impoundment, and any management deemed necessary by the BFIT to move towards preserving or enhancing old growth forest characteristics, these areas are not to be disturbed. Consistent with objectives of the approved buffer zone plan, Conservation – Limited Public Trail Areas would be managed to achieve old growth forest characteristics. Commercial harvesting of timber would be prohibited in Conservation – Limited Public Trail Areas. Conservation – Limited Public Trail Areas include identified rare, threatened, or endangered species habitat, wetlands, cultural resource, and/or other highly sensitive terrestrial or aquatic habitat and many other areas not considered sensitive at this time but not proposed for general use or project operations. The Conservation – Limited Public Trail Areas that would not contain any dock structures comprise 62.3 percent of shoreline and 74.0 percent of lands within the project boundary at Bond Falls, and 82.8 percent of shoreline and 69.4 percent of lands within the project boundary at Victoria. As detailed in Section 9 of the SMP, UPPCO proposes to increase the acreage of project lands designated Conservation by about 57.0 percent at the Bond Falls impoundment and 66.9 percent at the Victoria impoundment.<sup>6</sup>

The **Conservation – Limited Public Path Area** classification is assigned to lands within the project boundary where paths from the adjacent non-project landowners would lead to shoreline areas suitable for the placement of seasonal individual and cluster docks. To the extent possible, new path development would follow existing paths, trails, or roads, and be commonly shared by abutting landowners. The public path area designation represents the areas where the pathways could be placed. The actual acreages occupied by paths at a maximum width of 4 feet would be expected to be small.

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<sup>6</sup>The maps provided in the SMP contain a contradiction. The licensee specifically states this area is set aside for conservation purposes, these areas are not to be disturbed except for a possible public trail, and this classification would not contain dock structures. However, map 8-1 shows two paths and cluster docks within Conservation-Limited Public Trail Areas on the north shore. Map 7-1C also shows docks within the Conservation-Limited Public Trail Areas. UPPCO states (personal communication from S. Puzen, UPPCO representative, with J. Potvin, Louis Berger Group, September 2 and 4, 2008) that the docks should have been shown in the Conservation-Limited Public Path Area and not be in the Conservation-Limited Public Trail Zone. UPPCO also states the purpose of maps 8-1 and 7-1C are to only show how much area a path (4 feet wide maximum) would occupy and how a dock structure of maximum allowable width and length would affect navigation. Therefore, the placement of any docks within the Conservation-Limited Public Trail Areas would not be permitted under the SMP.

Consistent with the Conservation – Limited Public Path Area, UPPCO proposes dock zones within portions of this classification of the Bond Falls Project. Dock zones were established through the reservoir after the resource inventory data layers from the field investigations were overlaid on digital ortho-rectified aerial photography. Zones along the shoreline where seasonal docks could be placed without directly affecting sensitive resources (e.g., known or suitable rare, threatened, or endangered species habitat; cultural resources; aesthetic resources; and/or other highly sensitive habitat such as emergent wetlands and beds of submerged aquatic vegetation) were identified.

The **General Use/Formal Recreation Area** classification is assigned to areas within the project boundary with existing and proposed formal recreation areas that are not allowed under other classifications. In these areas, the reasonable construction of recreation areas/facilities, roads, pedestrian paths, and motorized vehicle trails, along with the placement of docks and seasonal dock storage, also would be permitted in designated areas. The locations of these areas were planned based upon data collected as part of the 2006 environmental studies. UPPCO would maintain these project access roads according to county specifications for public use. Proposed recreational enhancements would occur in these areas.

The **Project Operations Area** classification is assigned to lands that are currently occupied by hydropower generation and transmission and related structures or facilities that are necessary for the operation of the Bond Falls Project. The construction of recreation areas/facilities, roads, pedestrian paths, and motorized vehicle trails, as well as the placement of dock structures, would be permitted under this classification.

Should additional lands be required outside of the project operations areas for the continued safe operation of the Bond Falls Project, UPPCO would prioritize the use of lands that are located in the general use/formal recreation area; however, any lands within any of the classifications might be required for project purposes as required by the Commission.

#### Shoreline Management Activities

The following sections list prohibited activities and allowable uses by the general public within the project boundary on UPPCO lands and waters at the Bond Falls Project, as presented in the SMP. In general, the following activities would fall within the types of use and occupancy for which the licensee already has the authority to grant or deny permission under the standard land use article (Article 422). This article allows licensees to convey interests in project lands and waters (through leases, rights-of-way, or fee title conveyances) for certain non-project uses without obtaining prior Commission approval. A non-project use of project lands is a third-party use and occupancy of project property authorized by the licensee through the conveyance of a specific interest in project lands and waters. If a proposed use does not meet the criteria of the standard land use article,

the licensee must then obtain Commission approval prior to issuing the conveyance. The licensee proposes to codify existing and proposed use policies by implementing an SMP to use as a tool to make consistent decisions.

### **Prohibited Activities**

The following activities would be prohibited by anyone other than UPPCO on its property within the project boundary at the Bond Falls Project. The activities include, but are not limited to:

- Any use or activity conducted without prior UPPCO written permission for that use or activity.
- The construction of permanent structures or improvements, except those authorized via a permit<sup>7</sup> or Non-exclusive License Agreement (NLA).
- The construction of paved, concrete, or loose stone/gravel roads, boat ramps, or parking lots within conservation areas.
- Storage of docks and access ramps on any project lands other than those that are so designated.
- Other than snowmobile use in the winter, the use or parking of motorized vehicles except at designated recreation areas, existing roads, and project operations areas, and as necessary for the launching and removal of boats or the drop-off and pick up of boating supplies, or as needed for access by people with disabilities.
- Vegetation cutting or installation of any sort unless allowed under a permit.
- The burning or piling of brush or organic material such as compost, grass clippings, or leaves.
- The raking of leaves into the reservoirs, i.e., below the normal high-water mark of the reservoir.

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<sup>7</sup>Prior to undertaking any improvements or modifications on UPPCO lands within the project boundary, a completed permit application must be submitted to UPPCO. An applicant would be required to apply in writing for the permit. Information and a permit application would be furnished to the applicant concerning the necessary instructions and appropriate application fee. Construction or ground-disturbing activities requiring a permit would not begin until all plans and specifications have been approved in writing by UPPCO.

- The construction of wastewater disposal facilities such as but not limited to septic tanks, drain fields, underground pipes, and portable toilet facilities.
- The routing of storm-water drainage onto UPPCO land or into the waters of the reservoirs through open ditches or drains without UPPCO permission.
- The discharge of any septic effluent onto UPPCO land or into the waters of the reservoirs from septic systems or other sources.
- The installation or use of rail launches for boats.
- The storage of gasoline, oil, propane, or other combustible materials.
- The overnight placement of lawn furniture, picnic tables, playground equipment such as a swing set or slide, or flagpole placement on UPPCO property.
- The placement of floating rafts used for purposes other than docking.
- The placement and use of boat lifts.
- The installation of permanent electrical dock lighting and electric service.
- Placement of fill or structures on or in intermittent or perennial streams or wetlands on UPPCO property under a permit is strictly prohibited.
- Any use, activity, or encroachment that in UPPCO's judgment interferes with the enjoyment of UPPCO lands and the reservoir by the general public or by neighboring property owners.
- Any other use that UPPCO determines would degrade the scenic, recreational, or environmental value of the Bond Falls or Victoria reservoirs. Any such determination lies with the sole and uncontestable discretion of UPPCO.

Permitted activities must be in accordance with all applicable laws, building codes, regulations, and ordinances. In addition, such facilities would have to be installed on the UPPCO property as close as feasible to directly fronting the permittee's property. In no case would any work create conditions that would cause erosion on UPPCO lands or sediment to enter waterways or the lake. All activities on UPPCO property must be done so as to minimize the removal of live trees or brush.

### **Allowed Activities**

Owners of residential property located outside the project boundary and immediately adjacent to UPPCO-owned land within the project boundary, and who



maintain such property for non-commercial use, may request that UPPCO grant it a permit or NLA to allow additional non-exclusive uses of UPPCO project land. Allowable uses would be subject to the express written approval of UPPCO in the form of a permit and/or NLA. An UPPCO-approved permit or NLA issued to the eligible property owner may authorize these activities on UPPCO property or the reservoir:

- The creation of a pedestrian path and associated stairs and elevated wooden walkways (if activity falls within the Conservation – Limited Public Path Area, General Use/Formal Recreation Area, or Project Operations Area).
- The installation of a dock and an access ramp to the dock (if activity falls within the Conservation – Limited Public Path Area, General Use/Formal Recreation Area, or Project Operations Area).

These standard activities would be subject to the design criteria listed in the following section.

#### Other SMP Components

##### **Design Criteria**

The criteria for specific allowable uses are summarized as follows.

Pedestrian Paths. Paths may be permitted to provide walking access to the high-water mark of the lake and, in some cases, may interconnect with a public trail. These paths would be available for use by the general public. Where practicable, UPPCO may direct a single path to serve multiple residential areas. Installation of a new path or maintenance of an existing path would be subject to the following:

- To the extent possible, new path development would follow existing paths, trails, or roads and would be commonly shared by abutting landowners.
- Where feasible, new paths would not be laid out in a straight line; rather they would meander through the woodland to a reasonable extent taking into consideration topography, visual impact, and natural features in an effort to reduce the need for vegetation trimming, adverse aesthetic impacts, and shoreline erosion.
- Paths are for pedestrian use only; no motorized vehicles would be permitted on the paths except for project maintenance and enforcement action as directed by UPPCO.
- Paths would be no more than 4 feet wide.

- Paths would be developed and maintained in a manner that avoids where possible, and otherwise minimizes, the removal of vegetation; with the exception of trees that are hazardous, only brush less than 2 inches in diameter at a height of 5 feet and/or tree limbs below a height of 8 feet within the 4 foot width of the path may be removed. In addition, no eastern hemlock, den cavity/nesting trees, wolf trees, and/or fruit and mast bearing trees would be removed or trimmed.
- Only natural woodchips and/or bark may be used to improve the path. No other materials including, but not limited to, stone, brick, gravel, sand, stepping stones, flagstone, and colored stones, or any other materials, may be used on the paths.
- In limited instances where extreme topography or sensitive ecological areas warrant, steps or wooden walkways may be incorporated into a pedestrian path.
- Steps and elevated walkways would not be more than 2 feet above the contour of the ground.

Docks. A dock is a seasonal/temporary structure connected to the shoreline by a walkway/access ramp and is most often used for mooring boats. Under the SMP, a permit or NLA may grant the permittee permission to install an individual dock or a cluster dock of 10 or less slips in which no individual parcel owner could occupy more than one slip. UPPCO states that the following is consistent with the state of Michigan guidelines for docks and defines criteria for all residential docks:

- A dock may not obstruct the free flow of water or include any features which trap or accumulate aquatic plants or sediment.
- A dock may be floating or freestanding.
- To the greatest extent possible, docks and access ramps would be of natural tone colors so as to blend into the natural shoreline.
- Access ramps to docks must be removable and would not have railings.
- Docks would not be placed in the water prior to Memorial Day weekend of each year, and docks and access ramps must be removed from the water by October 15 of each year.
- All docks would either be securely anchored with mooring cable or chain, or secured to a subsurface removable support frame. Such support frames may have wheels for ease of manual installation and removal.

- UPPCO's dock permit number must be displayed on all sections of a permitted dock. The number must be located so as to be visible from a boat on the lake.
- Permittees are responsible for maintaining docks in a safe manner.
- During the period from October 16 to just prior to Memorial Day weekend, docks and access ramps cannot be present on the project land unless they are specifically authorized by UPPCO and the stored docks are located within areas so designated for dock storage.
- The removal of any submerged/emergent aquatic vegetation or submerged substrate or woody debris for the placement of the dock would be prohibited.

In addition to the criteria listed above, individual and cluster docks would have to meet the following criteria, as specified in the permit or NLA:

Individual Docks. Individual docks would be installed to achieve a maximum depth of 10 feet (as measured at the end of the dock) at the normal summer high water elevation, but in no case would an individual dock exceed 60 feet in length (combination of access ramp and dock) measured from the shore out into the reservoir. Individual docks would not be more than 5 feet wide. This width would be sufficient for the safe loading of gear and passengers. Individual floating dock configurations would generally conform to the schematic diagram in figure 7-1 of the proposed SMP, and individual non-floating dock configurations would generally conform to the schematic diagram in figure 7-4 of the proposed SMP. Only one watercraft could be stored overnight at each individual dock.

Cluster Docks. Cluster docks would not accommodate more than 10 boats and be installed in order to achieve a summer maximum depth of 10 feet (as measured at the end of the dock/slip) at the normal summer high water elevation, but in no case would the overall length of the cluster dock be allowed to exceed 150 feet (combination of access ramp and dock).

Dock sections could not be more than 5 feet wide. This width would be sufficient for the safe loading of gear and passengers. Cluster dock configurations would generally conform to the schematic diagrams shown in the proposed SMP (figures 7-2 or 7-3), depending on shoreline bathymetry and on-site environmental conditions. Only one watercraft could be stored overnight in each individual boat slip.

### **Recreational Enhancements**

UPPCO proposes to design and fund the construction, operation, and maintenance of proposed recreation enhancements within the project boundary of the Bond Falls Project as part of its overall SMP. Most of these recreation enhancements are not

currently required as part of the approved recreation plan. UPPCO proposes these recreational enhancements to accommodate anticipated increased general public recreation use of the reservoir that would occur naturally and increased use that may occur as the result of anticipated development of non-project lands in the vicinity of the project and increased economic activity in the region.

For scheduling purposes UPPCO has selected amenities to existing formal public recreation facilities that would make them more user-friendly and accessible as high priorities. In addition, UPPCO considered public requests by regular lake users as well as the levels of public and private recreational use associated with proposed non-project use of project lands. Table 2 shows the proposed recreation enhancements, priority, and implementation schedule. The exact placement of recreation enhancement number 1 would be determined based on approval of the proposed SMP.

Table 2. Proposed recreational enhancements at the Bond Falls Project.

<b>Recreational Enhancement</b>	<b>Facility/ Priority</b>	<b>Implementation Schedule</b>
A hard surface boat launch at Barclay boat landing.	1	By November 29, 2010
A skid pier at Barclay boat landing.	2	By November 29, 2010
Installation of a hard surface for launching at the Calderwood boat landing.	3	By November 29, 2010
Installation of a skid pier at the Calderwood boat landing.	4	By November 29, 2010
Canoe take-out area with directional signage to Agate Falls for additional canoe launching opportunities downstream.	5	By November 29, 2010
Improvements to parking at the Barclay boat landing.	6	1-5 years after SMP approval
Installation of a marina/cluster dock for public rental of boat slips near the Barclay boat landing.	7	1-5 years after SMP approval
Installation of public parking for the marina/cluster dock near the Barclay boat landing.	8	1-5 years after SMP approval
Improvement of Barclay boat landing access to incorporate barrier-free access.	9	1-5 years after SMP approval

<b>Recreational Enhancement</b>	<b>Facility/ Priority</b>	<b>Implementation Schedule</b>
Improvement of parking at the Calderwood boat landing.	10	1-5 years after SMP approval
Installation of a marina/cluster dock for public rental of boat slips near the Calderwood boat landing.	11	1-5 years after SMP approval
Installation of public parking for the marina/cluster dock near the Calderwood boat landing.	12	1-5 years after SMP approval
Construct a park pavilion for rental by the general public.	13	1-5 years after SMP approval
Construct a shower building for the use of campers.	14	1-5 years after SMP approval
Install a fish cleaning station at Calderwood boat landing.	15	1-5 years after SMP approval
Install a fish cleaning station at Barclay boat landing.	16	1-5 years after SMP approval
Install playground equipment at the Bond Falls day use area.	17	1-5 years after SMP approval
Establishment of an easement across project lands (Little Falls area) to be used in conjunction with a sanctioned multi-use trail that connects a north/south multi-use corridor trail on the Ottawa National Forest lands.	18	Within one year of a request from an organized effort to develop a sanctioned multi-use trail that connects a north/south multi-use corridor trail on the Ottawa National Forest lands, UPPCO will work with the group to grant conditioned permission for the trail.
Install barrier-free fishing pier within one of the General Use/ Formal Recreation Areas.	19	1-5 years after SMP approval
Develop a recreation brochure for Bond Falls and make it available to the general public.	20	1-5 years after SMP approval
Install a historical interpretive sign for public education and viewing.	21	1-5 years after SMP approval

<b>Recreational Enhancement</b>	<b>Facility/ Priority</b>	<b>Implementation Schedule</b>
Install and maintain a volleyball net at the day-use area.	22	1-5 years after SMP approval
Develop a bathymetric map of the impoundment for use of the general public.	23	1-5 years after SMP approval
Install electric service to west consolidated campground.	24	1-10 years after SMP approval
Install a public hiking trail linking the east and west campground areas.	25	1-10 years after SMP approval
Install a public hiking trail around the remaining impoundment area.	26	1-10 years after SMP approval
Little Fall Access Area	27	Address only as necessary according to recreational use and site conditions.
Dead Man Falls Access Area	28	Address only as necessary according to recreational use and site conditions.
Twin Lakes Access Area	29	Address only as necessary according to recreational use and site conditions.

The licensee states the proposed pedestrian public trail (priority 1 in table 1) was specifically requested by the public during SMP development outreach meetings. UPPCO's proposed Conservation – Limited Public Trail Area classification would allow the placement of the public trail in consultation with the appropriate Resource Agencies to minimize impacts on sensitive environmental resources. The public trail would generally be located within 100 feet of the shoreline and would have a maximum width of 6 feet. Additionally, the trail would be developed and maintained in a manner that avoids where possible, and otherwise minimizes, the removal of vegetation. The licensee states where extreme topography or sensitive ecological areas warrant, steps or wooden walkways may need to be incorporated into the public trail.

UPPCO states it would use best management practices (BMPs) when constructing the public trail and would install necessary measures to prevent the erosion of soil into the water. Some portions of the public trail may not be constructed after detailed planning if trail construction and/or operation may result in significant resource impacts.

### Amendment of Buffer Zone Plan

In UPPCO's approved buffer zone plan,<sup>8</sup> it committed to providing a variable width buffer zone with an average width of 200 feet on project lands that it owns adjacent to the Bond Falls and Victoria impoundments. While the principal management objective of the plan is to achieve old growth forest characteristics, the plan is also designed to protect and enhance habitat and be consistent with the wildlife and land management plan and the threatened and endangered species protection and enhancement plan. As part of this SMP, UPPCO proposes to increase the acreage of project lands to be managed for old growth characteristics by about 57 percent at the Bond Falls impoundment and 67 percent at the Victoria impoundment (table 3).

Table 3. Comparison of lands protected under buffer zone plan versus SMP.

Conservation Area	Percent of Project Boundary	
	Bond Falls	Victoria
Existing buffer zone plan	45.1	46.4
Proposed SMP	79.1	69.4
Proposed Increase in Conservation Area	57.0	66.9

### 3. Action Alternative

No viable action alternatives have been identified for consideration.

### 4. No-action Alternative

Under the no-action alternative, the licensee would not implement its proposed SMP and would continue to manage the reservoir's shoreline under its existing license conditions and Commission-approved plans. The licensee would continue to permit activities and the placement of docks on a case-by-case basis, and therefore not benefit from a comprehensive plan designed to protect environmental resources of the project.

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<sup>8</sup>110 FERC ¶62,165, Order Approving Buffer Zone Plan Pursuant to Article 413, February 23, 2005.

## V. CONSULTATION AND COMMENTS

This section discusses comments received on the proposed action as follows: (1) comments received during the preparation of the proposed SMP and (2) comments received during the Commission's public notice period for the proposed SMP.

### 1. Pre-filing Consultation

In 2005, UPPCO originally worked with local governments in designing a draft plan for non-project uses of project land. After working with township and county governments, UPPCO conducted a public and agency outreach and education program. Through this process, UPPCO states it consulted with a representation of interests, including, but not limited to, some groups in opposition to the development and sale of non-project lands and any new uses of non-project and project land. This outreach resulted in agencies requesting the development of an SMP for the project.

UPPCO continued its outreach throughout the development of its SMP, involving the public and agencies by:

- Establishing a website with a comprehensive library of information on the land sale and shoreline management process as well as questions and answers about the project.
- Forming stakeholder focus groups, consisting of representatives from economic development, government, hunting and fishing, and conservation groups in the Eastern and Western Upper Peninsula that met monthly (May-October and early 2007).
- Holding four public meetings to gather feedback.
- Providing a draft SMP for public and agency comment.
- Issuing news releases and fact sheets to media throughout the Upper Peninsula, sending informational letters to citizens in affected townships, and meeting with local media editorial boards.
- Meeting with state and Federal legislators, Resource Agencies, and hunting, fishing, ATV, and snowmobiling organizations.
- Conducting interviews with print and on-air reporters, responding to email information requests, and making presentations before township and county boards and planning commissions in and around the project.



In addition, postpaid, pre-addressed comment cards were made available at all public meetings, and the public was encouraged to contact UPPCO with their comments and suggestions.

The following Federal and state agencies worked with UPPCO during the pre-filing process: the U.S. Department of Agriculture (Forest Service-Hiawatha and Ottawa National Forests); the U.S. Department of the Interior (National Park Service and Fish and Wildlife Service); MDNR; Michigan Department of Environmental Quality; Michigan Attorney General's Office; Anglers of the Au Sable, Inc., the Great Lakes Council, Inc. of the Federation of Fly Fishers, Inc., the Michigan United Conservation Clubs, and the Michigan Council of Trout Unlimited (Michigan Hydro Relicensing Coalition); and Keweenaw Bay Indian Community.

Generally, the Federal and state agencies, private individuals, and public and private non-governmental organizations' issues concerned the potential impacts of implementing the proposed SMP on water resources, fishery resources, terrestrial resources, threatened and endangered species, aesthetic resources, cultural resources, recreation resources, and socioeconomic resources. Specifically, the Resource Agencies requested the licensee conduct 20 resource studies at the Bond Falls Project. The licensee conducted 12 studies (as requested), 3 modified studies, and did not conduct 5 studies requested by the Resource Agencies.

Specifically, UPPCO did not conduct the water quality study, lake sturgeon study, and habitat surveys - Old growth, mesic conifer, and red oak-timber surveys - requested by the agencies stating that adequate data exist for these resources and there is no lake sturgeon habitat within the Bond Falls Project boundary. The licensee did not conduct a nuisance plants study requested by the agencies stating it is not necessary because the current project license already requires periodic nuisance plant surveys. BMPs would be implemented during ground-disturbing activity within the project boundary. The licensee also stated that homeowner restrictions on acceptable vegetation plantings were not within the purview of these studies. The agencies also requested an archaeological/geologic/cultural features study; however, the licensee states archaeological investigations were conducted during the relicensing phase of the project, and known significant archaeological/geological/cultural features would be mapped pursuant to Article 419 of the project license.

Except as discussed in the appropriate resource sections of this document, we find that either UPPCO has adequately responded to the agencies comments or that the issues raised are outside the scope of this environmental assessment (EA).

## **2. Public Notice and Commission Correspondence**

On December 28, 2007, the Commission issued a public notice of the application for the proposal, which solicited comments, motions to intervene, and protests. The

deadline for filing responses to the notice was January 29, 2008. Table 4 shows the entities who filed comments and/or motions; entities who filed late are italicized:

Table 4. Entities who filed comments and/or motions pursuant to the Commission public notice.

<b>Entity</b>	<b>Filing Date</b>	<b>Comment and/or Motion</b>
Upper Peninsula Public Access Coalition (UPPAC)	January 5, 2008 January 25, 2008  March 17, 2008	Intervention in protest Supplement to Intervention in protest with signatures on petition  Comments providing information on an on-going lawsuit
U.S. Department of the Interior, Fish and Wildlife Service (FWS)	January 2, 2008	Correction to the Administrative Record
James Cameron Coleman	January 8, 2008	Comments with concerns
Mary Carol Coleman	January 8, 2008	Comments with concerns
Michael G. Genrich, P.E.	January 9, 2008	Intervention in Protest
Upper Peninsula Construction Council (UPCC)	January 9, 2008	Comments in support
Douglas B. Welker	January 9, 2008 January 29, 2008	Comment not in support Comments in opposition
Joseph LeBouton	January 9, 2008	Comments not in support
Ontonagon Conservation District	January 10, 2008	Comments in support
Jerry Woolpy	January 10, 2008	Comments with concerns
Wade Fleming	January 11, 2008	Intervention not in

<b>Entity</b>	<b>Filing Date</b>	<b>Comment and/or Motion</b>
		support
Al Warren	January 12, 2008	Intervention in protest
Mark Hovel – Big Bear Adventures	January 14, 2008	Comments in protest
Charles Guschel	January 14, 2008	Comments not in support
Western U.P. Michigan Works	January 14, 2008 January 28, 2008	Comments in support Comments in support
Long Lake Property Owners Association	January 14, 2008	Comments not in support
Karen Domanus	January 14, 2008	Comments not in support
Arnold Domanus, Jr.	January 14, 2008	Comments not in support
Dawn and Tom Korinek	January 14, 2008	Comments not in support
Ned Loar	January 14, 2008	Comments not in support
Dennis Gray	January 15, 2008	Comments not in support
Mary Jo Hedenberg	January 15, 2008	Protest
James Claypool & Cora Claypool	January 16, 2008	Comments not in support
Cora Claypool	January 17, 2008	Comments not in support
James G. Claypool	January 16, 2008	Comments not in support
Sherry and Anthony Zoars	January 16, 2008	Intervention in protest
SaveOurSchools/SaveOurShorelines (SOS)	January 17, 2008 January 25, 2008 January 29, 2008 <i>January 30, 2008</i>	Intervention in support Comments in support Comments in support <i>Comments in support</i>

<b>Entity</b>	<b>Filing Date</b>	<b>Comment and/or Motion</b>
Martin J. Draeger	January 17, 2008	Comments not in support
John Coupe	January 18, 2008	Protest
Nancy Auer	January 22, 2008	Comments with concerns
Jack Speak	January 22, 2008	Protest
Warren Miller, Jr.	January 22, 2008	Protest
Norman Poulton	January 23, 2008	Protest
Michigan Department of Natural Resources (MDNR)	January 23, 2008	Intervention
Tom Church	January 23, 2008	Protest
Steve Hovel	January 23, 2008	Protest
Darby Lee Beaudet for the Upper Peninsula chapter of Community Enlightenment	January 23, 2008	Protest
Roger Hoffstrom	January 23, 2008	Protest
Bonnie Applekamp	January 23, 2008	Comments not in support
Keith Applekamp	January 23, 2008	Comments not in support
John Novak	January 18, 2008	Protest
Stannard Township	January 22, 2008	Intervention in protest
United States Department of the Interior	January 24, 2008	Intervention
Rachel Hovel	January 24, 2008	Requests a 30-day EOT for filing comments
UPPCO	January 28, 2008	Comments in support
Jerry M. Juihle	January 24, 2008	Comments with concerns
Sidney L. Harring	January 24, 2008	Protest

<b>Entity</b>	<b>Filing Date</b>	<b>Comment and/or Motion</b>
Justine and Ron Richards	January 24, 2008	Comments not in support
William F. Delacourt	January 25, 2008	Intervention in support
Upper Peninsula Environmental Coalition (UPEC)	January 25, 2008	Intervention with comments
U.S. Department of Agriculture, Forest Service	January 25, 2008	Intervention
Bond Falls Flowage Area Landowners	January 25, 2008	Intervention not in support
Sidney L. Haring	January 25, 2008	Protest
Wisconsin Department of Natural Resources	January 25, 2008	Intervention
Friends of the Land of Keweenaw (FOLK)	January 26, 2008	Intervention in protest
Michigan United Conservation Clubs, Michigan Council Trout Unlimited, Great Lakes Council, Inc., Federation of Fly Fishers, Inc., and Anglers of the Au Sable. (The Michigan Hydro Relicensing Coalition or “the Coalition”)	January 27, 2008	Intervention
Western Upper Peninsula Canoe Association	January 27, 2008	Intervention not in support
Michigan Department of Natural Resources, U.S. Forest Service Hiawatha and Ottawa National Forests, FWS, National Park Service, Michigan Hydro Relicensing Coalition and Keweenaw Bay Indian Community (collectively “Resource Agencies”)	January 28, 2008	Comments
Northwood Alliance, Inc.	December 29, 2008	Intervention in protest
Mike Szurek	January 28, 2008	Protest
Tom Casperson, Michigan House of	January 25, 2008	Comments in support

<b>Entity</b>	<b>Filing Date</b>	<b>Comment and/or Motion</b>
Representatives		
Common Coast Research and Conservation	January 29, 2008	Intervention not in support
Northwoods Wilderness Recovery and its executive director Douglas R. Cornett	January 29, 2008	Intervention in protest
Nancy Warren	January 29, 2008	Protest
Alger County Board of Commissioners	January 28, 2008	Comments in support
Western U.P. Michigan Works	January 28, 2008	Comments in support
Ontonagon County Board of Commissioners	January 28, 2008	Comments in support
Western Upper Peninsula Planning and Development Regional Commission	January 28, 2008	Comments in support
June Schmaal	January 28, 2008	Comments not in support
Roderick W. McKinnon, III	January 28, 2008	Intervention in protest
Roseanna Larrin	January 28, 2008 February 7, 2008	Intervention not in support Comments on legitimacy of letters filed in support of proposal.
Theresa Viitala	January 28, 2008	Intervention in support
Interior Township	January 28, 2008	Comments in support
Eugene Nurmi	January 28, 2008	Comments in support
Ontonagon County Economic Development Corporation	January 28, 2008	Comments in support
Perry J. Schneeberg	January 29, 2008	Intervention in support
Steven C. Garske	January 29, 2008	Intervention in protest
Great Lakes Indian Fish and Wildlife Commission	January 29, 2008	Comments not in support
Roberta K. Murray and Wayne and	January 29, 2008	Comments not in

<b>Entity</b>	<b>Filing Date</b>	<b>Comment and/or Motion</b>
Gloria Jokisalo		support
Arlyss D. Waters	January 29, 2008	Comments not in support
<i>Steven Lindberg, State Representative, Michigan House of Representatives</i>	<i>January 30, 2008</i>	<i>Comments in support</i>
<i>Merrill Horswill</i>	<i>January 30, 2008</i>	<i>Protest</i>
<i>Robin Indermuehle</i>	<i>January 30, 2008</i> <i>January 30, 2008</i>	<i>Comments not in support</i> <i>Request for an extension of time</i>
<i>Patrick Indermuehle</i>	<i>January 30, 2008</i>	<i>Protest</i>
<i>Michigan Lake and Stream Associations</i>	<i>January 30, 2008</i>	<i>Comments not in support</i>
<i>Robert and Karyn Hautamaki</i>	<i>January 30, 2008</i>	<i>Protest</i>
<i>Dorothy E. Strubbe</i>	<i>January 30, 2008</i>	<i>Protest</i>
<i>Charles Waters</i>	<i>February 1, 2008</i>	<i>Protest</i>
<i>Ken Franti</i>	<i>February 1, 2008</i>	<i>Protest</i>
<i>Tom Wolfe</i>	<i>February 4, 2008</i>	<i>Protest</i>
<i>Barbara Querzi and Rick Querzi</i>	<i>February 4, 2008</i>	<i>Comments in opposition</i>
<i>Nicole Pollack</i>	<i>February 4, 2008</i>	<i>Comments and protest</i>
<i>Dawn Arbelius</i>	<i>February 4, 2008</i>	<i>Comments not in support</i>
<i>Jennifer Tyminski</i>	<i>February 4, 2008</i>	<i>Comments not in support</i>
<i>Greg Wright</i>	<i>February 4, 2008</i>	<i>Comments not in support</i>
<i>Robert and Sarah Wagner</i>	<i>February 4, 2008</i>	<i>Comments not in support</i>
<i>Thomas D. Wiensch</i>	<i>February 11, 2008</i>	<i>Comments not in support</i>

In comments filed with the Commission, numerous individuals and organizations, including the Common Coast Research and Conservation, Resource Agencies, and Great Lakes Indian Fish and Wildlife Commission stated that the pre-filing environmental studies were inadequate because they failed to address the potential negative effects of proposed private uses of project lands and waters. Some of these commentors also stated that the licensee's pre-filing consultation process was flawed.

In comments filed with the Commission, numerous individuals and organizations, including the Common Coast Research and Conservation and in comments filed on January 28, 2008, the Resource Agencies, Long Lake Property Owners, Stannard Township, and Great Lakes Indian Fish and Wildlife Commission state that a National Environmental Policy Act (NEPA) analysis is needed to fully analyze the direct, indirect, and cumulative effects on natural resources of implementing the proposed SMP.<sup>9</sup> Michael G. Genrich also raised a concern of the potential impact of the potential development on sensitive species. The Resource Agencies further state that, although UPPCO has reduced some proposed non-project uses of project lands as compared to its draft SMP (e.g., reduced number of docks, no electricity at docks), most of the concerns raised in its May 21, 2007, comment letter remain unaddressed in the final SMP. The Resource Agencies state they remain concerned with the deficiencies in the environmental studies, the unwillingness to revise existing license plans to incorporate resource effects, and the potential adverse effects on resources. A list of concerns that have not been satisfactorily addressed in the final SMP were as follows: revision of license plans, conflict with license objectives, consistency with the recreation plan and the LMP, inadequate environmental data, shoreline classifications are confusing and allow non-project uses in areas that contain sensitive species or habitats, boating capacity, nuisance species, and the lack of monitoring and enforcement. Michael G. Genrich also commented that the licensee used faulty technical analysis of dock design. Both Michael G. Genrich and Stannard Township commented the boat carrying capacity analysis for Bond Falls reservoir was faulty.

In comments filed with the Commission, numerous individuals and organizations, including the Michigan Hydro Relicensing Coalition, Long Lake Property Owners, Stannard Township, and Great Lakes Indian Fish and Wildlife Commission comment that water quality impacts associated with increased development and recreational activities would occur from implementation of the SMP. Some commenters stated a water quality monitoring plan should be required. In comments filed with the Commission, numerous individuals and organizations, including the Upper Peninsula Chapter of the Community of Enlightenment and Long Lake Property Owners comment that non-native or invasive

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<sup>9</sup>NEPA requires Federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. This document initiates the NEPA process.



species area a concern. Some of these commenters request the existing nuisance control plan as well as the wildlife and land management plan, and threatened and endangered species management plan need to be updated and rewritten. Pursuant to the nuisance control plan they state in addition to plant threats outlines in the plan, animal invasives should be included and a comprehensive monitoring plan developed. They also state the recreation plan should focus on consolidating activity and reducing or eliminating new development over a majority of shoreline. In comments filed with the Commission, numerous individuals including James Cameron Coleman, Mary Carol, Coleman, and Ned Loar also state that with decreased water availability due to severe drought conditions there is a potential conflict with the flow levels required for power generation and to ensure viable habitat in the natural riverbed.

In comments filed with the Commission, numerous individuals and organizations, including the UPPAC, UPEC, Folk, Northwood Alliance, Inc., Northwoods Wilderness Recovery and its executive director Douglas R. Cornett, Western Upper Peninsula Canoe Association (WUPCA), Long Lake Property Owners, Bond Falls Flowage Area Landowners, and Great Lakes Indian Fish and Wildlife Commission state the SMP would allow extensive shoreline development that is directly in conflict with the project license. In comments filed with the Commission, numerous individuals and organizations, including the UPPAC, FOLK, Northwood Alliance, Inc., Northwoods Wilderness Recovery and its executive director Douglas R. Cornett, Common Coast Research and Conservation, and Bond Falls Flowage Area Landowners also state that the licensee's pre-filing public consultation process was flawed. UPPAC, FOLK, Northwoods Wilderness Recovery and its executive director Douglas R. Cornett, Stannard Township, and Wisconsin Department of Natural Resources state an environmental impact statement (EIS) should be completed prior to FERC approval of any conveyance of project lands because the pre-filing environmental studies were inadequate.<sup>10</sup> Common Coast Research and Conservation also felt the pre-filing environmental studies were inadequate. In comments filed with the Commission, numerous individuals and organizations, including the Bond Falls Flowage Area Landowners, Roger Hoffstrom, and Keith Applekamp, and to some extent Nancy Warren, Roberta K. Murray, and Roderick W. McKinnon, III further state the proposed exclusive use by the owners of the non-project lands was intended to increase UPPCO and real estate developers' profit at the expense of natural resources and the other interested parties.

In comments filed with the Commission, numerous individuals and organizations, including the Upper Peninsula Chapter of the Community of Enlightenment, John Coupe, and Ken Franti state concerns with the potential impact on aesthetic resources if the licensee's proposed SMP is implemented. In comments filed with the Commission, numerous individuals and organizations, including the Upper Peninsula Chapter of the Community of Enlightenment, Long Lake Property Owners, Stannard Township, and

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<sup>10</sup>If the EA determines that the environmental consequences of a proposed Federal undertaking may be significant, an EIS is prepared.

Bond Falls Flowage Area Landowners, further state the pre-filing environmental studies were inadequate because they failed to address the potential negative impacts of the proposed private uses of project lands and waters and potential negative impact on the segments of river designated under the Wild and Scenic Rivers Act.

In comments filed with the Commission, numerous individuals and organizations, including the UPEC and, to some extent, Northwoods Wilderness Recovery and its executive director Douglas R. Cornett, and Tom Wolfe, state the installation of private boat docks, pedestrian pathways, wooden walkways and stairs, clearing of view corridors, development of public trails systems, and the motorized use of project lands are inconsistent with the intent of the original license and further environmental analysis is needed. Mike Szurek, Steve Hovel, the Upper Peninsula Chapter of the Community of Enlightenment, and Patrick Indermuehle state concerns that the proposed private docks only hinder the public's use of the project lands, change the wilderness experience, and could cause user conflicts. UPEC states concerns about the tourist industry and individual residents and further states the long-term economic health would be best served by keeping some of the forests, stream, and lakes in a wild natural condition. UPEC also stated the development of the project basin to increase the local tax base is not justified.

Merrill Horswill, the Upper Peninsula Chapter of the Community of Enlightenment, Martin J. Draeger, Sidney L. Haring, Greg Wright, and Ken Franti state concerns with the implementation of the proposed SMP with potential impacts on nesting waterfowl to include the loon, eagle, and osprey populations. Common Coast Research and Conservation commented that UPPCO selectively used information and that the SMP fails to include comprehensive management and protection measures to ensure the suitability of the reservoirs to support loons.

The Upper Peninsula Chapter of the Community of Enlightenment states a concern that implementation of the proposal may affect the habitat of the grey wolf. Nancy Auer states a concern that the proposed public trail has the potential to disturb wood turtle movements and habitat adjacent to the reservoir. She also states any impact to water quality and sediment load will impact the lake sturgeon downstream and that impacts to the species were not addressed in the SMP.

Stannard Township and Mike Szurek commented they were not given the opportunity for input on campsite and recreational changes at Bond Lake due to the fact that desirable dispersed campsites have been taken away and replaced by undesirable consolidated sites. Roger Hoffstrom also commented that UPPCO waited until FERC approved the removal of the dispersed campsites at Bond to unveil its plan for selling the non-project lands to a land developer.

The Stannard Township also commented the United States Forest Service provides to the public two hunting management areas directly adjacent to the planned real estate

development in the non-project lands. Therefore, the planned high density residential home development in this area is incompatible with these USFS hunting management areas. John Coupe also stated he had some hunter concerns as well as concerns with land fragmentation and the loss wildlife habitat.

The Stannard Township also commented that to access the planned real estate development on the south side of the flowage, vehicle traffic would have to travel through low volume Forest Service roads and two track trails thru National Forest land which would impact these resources negatively.

The Bond Falls Flowage Area Landowners commented that (1) due to fluctuating water levels at Bond Flowage, cluster and individual docks are not appropriate; (2) the Final SMP does not adequately address enforcement; and (3) in 2004, UPPCO proposed to the Commission the elimination of dispersed campsites at Bond to “obtain old growth characteristics, to enhance loon nesting potential and to provide more isolated habitat for waterfowl and threatened species and now, UPPCO is proposing private docks and paths in some of the same areas vacated by the dispersed campsites.”

Steven C. Garske states UPPCO’s SMP completely ignores the presence of a Michigan state-threatened species, the merlin (*Falco columbarius*) and the presence of the state-threatened lake herring (*Coregonus artedi*). Mr. Garske further states the Bond Falls Flowage also supports a state “special concern” plant (autumnal water starwort, or *Callitriche hermaphroditica*) for which he has completed Rare Plant Reporting Forms and photos and submitted to the Michigan Natural Features Inventory.

Charles Waters commented the single most important action UPPCO could take to mitigate the impacts of the anticipated development of the non-project lands would be to prohibit docks on the project lands.

FWS filed a correction to the administrative record stating that UPPCO repeatedly asserts throughout the SMP that “based on our consultation with Christie Deloria (FWS), not all potential loon habitat requires protection.” FWS further states that, although Ms. Deloria has addressed loon habitats in other venues, such as with campground development and reorganization at the Bond Falls Project, she has not made statements of prioritization of habitats during SMP deliberations.

## **VI. ENVIRONMENTAL ANALYSIS**

### **A. General Setting**

The Bond Falls Project consists of the Bond Falls, Bergland, Cisco, and Victoria impoundments. The impoundments are located on the Middle, South (Cisco), and West Branches of the Ontonagon River in northeastern Wisconsin and the Western Upper Peninsula of Michigan. The Bond Falls, Bergland, and Cisco impoundments provide for

seasonal storage and diversion of river flow to the Victoria impoundment. The Victoria impoundment has the only power-producing facility within the Bond Falls Project.

The Bond Falls storage impoundment is located on the Middle Branch of the Ontonagon River near Paulding, Michigan. The Middle Branch flows in a northerly direction and, after being joined by the East and West Branches, discharges into Lake Superior. The project facilities are located at about river mile 40. At normal full pond elevation of 1,475.9 feet above mean sea level the Bond Falls impoundment has a surface area of 2,160 acres and has about 20.2 miles of shoreline (not including islands).

The Victoria impoundment is located on the West Branch of the Ontonagon River, approximately 18 miles upstream of the mouth of the Ontonagon River, near Rockland, Michigan. The main dam and facilities are located about 4 miles upstream of the confluence of the West and Middle Branches of the Ontonagon River. The powerhouse and generating facilities are located about 1 mile downstream of the dam. Reservoir levels can fluctuate about 3 feet per day. UPPCO maintains the target reservoir elevation at 907.1 feet msl during the late spring, summer, and autumn, to provide maximum head for power generation. During March, UPPCO draws the reservoir down about 14 feet (to 893.1 feet msl) to allow de-icing of the spillway gates and to provide additional storage for spring runoff. UPPCO provides minimum flows of 82 cfs below Victoria dam in the bypassed reach of the West Branch from May 1 to June 10 of each year, unless Michigan DNR determines that such releases may be terminated at an earlier date. For the remainder of the year, there is no minimum instream flow requirement, and the bypassed reach is primarily dewatered.

The West and South Branches of the Ontonagon River are the main streams within the basin. Lake Gogebic, at the headwaters of the West Branch, is currently used for recreation and water supply with camps and permanent residences scattered along its shore. The Cisco Lake sub-basin controls water releases into the upper reaches of the South Branch. The South Branch joins the West Branch about 5 miles upstream of Victoria dam and flows easterly to the Victoria impoundment. Victoria dam impounds the stream flow of the West Branch and adjacent drainage. The Victoria development facilities regulate releases from the impoundment through the spillway and/or penstock via the intake structure.

## **B. Scope of the Analysis**

### **1. Geographic Scope**

The geographic scope of this environmental analysis is focused on the immediate area of the shoreline and the 200-foot buffer zone within the project boundary. As appropriate, discussions of cumulative environmental effects are incorporated into the resource analyses in this document.

## 2. Temporal Scope

The temporal scope of this environmental analysis focuses on the period from now until the current project license expires in August 2043.<sup>11</sup> The environmental effects of the project after this license term will be analyzed extensively during the license application process.

### C. Environmental Analysis and Recommendations

UPPCO filed a proposed SMP for the Bond Falls Project to address the land use pressures and potential impacts anticipated from the sale of adjacent non-project lands to residential real estate developers.

This section describes the affected environment of the Middle and West Branches of the Ontonagon River and the general environmental effects of implementing the proposed SMP. Also, it provides FERC staff recommendations for reducing or avoiding any adverse impacts.

#### 1. Geology and Soils

##### a. Affected Environment.

The topography of the Bond Falls and Victoria development project areas ranges from approximately 600 feet above msl at the Lake Superior shore to about 1,800 feet above msl south of the Bond Falls reservoir (FERC, 2002).

Precambrian bedrock generally controls local surface features. Areas of unconsolidated glacial deposits now cover most of Ontonagon County. These glacial deposits transition through unconsolidated moraine deposits into the rugged hills of Precambrian rocks (FERC, 2002).

The soils along the shoreline of the Bond Falls reservoir and within the 200-foot-wide buffer zone are predominately composed of Kalkaska sands, Karlin sandy loam, Stutts sandy loam, and Pence fine sandy loam (NRCS, 2008a and 2008b). The soils along the shoreline of the Victoria reservoir and within the 200-foot-wide buffer zone are almost entirely composed of Rockland silt loam (NRCS, 2008a and 2008b).

Shoreline erosion was raised as a concern during the relicensing of the Bond Falls Project (which includes the Bergland, Cisco, Bond Falls, and Victoria developments) in

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<sup>11</sup>The license for the Bond Falls Project expires in 2043. The project relicensing process will require the prospective licensee to prepare a license application based on extensive environmental study and public involvement. The project's SMP would likely be updated at that time.

1988 through 2002 (FERC, 2002), but most of the concerns pertained to the north shore of Lake Gogebic (Bergland development). Article 410 of the new license order issued August 20, 2003, required UPPCO to develop an erosion and sediment control plan (ESCP) for the entire project. The initial survey, conducted in August 2005, identified eight erosion sites on the Bond Falls reservoir and no sites on the Victoria reservoir. As the SMP was being developed, UPPCO requested and received approval of an amendment to the ESCP to reflect the potential changes that would likely result from implementation of the SMP (FERC, 2007). The amended ESCP allows the Bond Falls Implementation Team (BFIT) to determine the (1) schedule for all projects to stabilize shorelines; (2) requirements for the design to stabilize the shorelines; (3) selection of sites to be stabilized; and (4) prioritization of mitigation and enhancement fund funds.

The SMP maps show 15 erosion sites on the shoreline of the Bond Falls reservoir and 4 sites on the shoreline of the Victoria reservoir. The Bond Falls sites are primarily located in Karlin and Kalkaska soils, while the Victoria sites are located in Rockland soils. The identified sites likely will be evaluated by the BFIT for possible repair, in accordance with the amended ESCP.

Approximately 17.0 percent of the shoreline of the Bond Falls reservoir is designated as lands associated with Project Operations and another 15.6 percent is designated as General Use/Formal Recreation Area. Both of these land designations allow development that could include, and/or encroach on, the shoreline. The soils in the Project Operations and General Use/Formal Recreation areas primarily include Kalkaska sand and Karlin sandy loam.

Forty-two shoreline locations are identified as potential dock placement sites, and the sites are fairly evenly distributed around the shoreline of the reservoir. Eight individual dock locations are concentrated along one section on the north shore of the reservoir that is designated as a Conservation-Limited Public Path area. The rest of the dock sites are designated for cluster docks. UPPCO states that there may be a need for 15 additional private dock slips. The shoreline areas where dock placement would be allowed correspond to approximately 20.7 percent of the shoreline. The dock zones are primarily located along the shoreline of lands designated as Conservation – Limited Public Paths, although a few are located in areas designated as General Use/Formal Recreation areas. These areas are associated with mainly associated with the Kalkaska or Karlin complex soils.

Lands along the Bond Falls shoreline designated as Conservation- Limited Public Trails comprise 62.3 percent of the shoreline and are located in areas with primarily Kalkaska and Karlin soil composition.

Approximately 11.5 percent of the shoreline of the Victoria reservoir is designated as lands associated with Project Operations and another 5.7 percent is designated as General Use/Formal Recreation Area. Both of these land designations allow

development that could include, and/or encroach on, the shoreline; however, individual and cluster docks are prohibited on the Victoria reservoir. The soils in the Project Operations and General Use/Formal Recreation areas consist primarily of Rockland silt loam.

Lands along the Victoria shoreline designated as Conservation- Limited Public Trails comprise 82.8 percent of the shoreline and are located in areas with primarily Rockland silt loam.

b. Environmental Impacts and Recommendations.

**Bond Falls**

Fifteen erosion sites have been identified along the Bond Falls reservoir. Little information is known about these sites, but review and/or treatment of erosion sites would be covered by the amended ESCP. With the exception of two sites, the erosion sites are located outside of proposed development areas. Among the stated goals of the SMP are goals to avoid or minimize the potential for erosion due to new development, to monitor any erosion that occurs, and to implement erosion control measures when warranted.

The proposed land use classifications allow development on about 37.7 percent of the shoreline. The proposed development of access trails across and along the buffer zone would increase potential erosion from runoff, although the proposed measures requiring trails to meander from the water's edge to the outer limit of the buffer and use of wood chips on the trails may reduce erosion potential somewhat. The construction, installation, removal, and storage of temporary boat docks on the shoreline would increase the potential for erosion on the shoreline embankments.

Potential upland development outside of the 200-foot buffer zone associated with future shoreline uses would reduce vegetative cover in the watershed and ultimately result in increased sedimentation and erosion in the impoundment. Upland development outside of the project boundary; however, is outside of FERC's jurisdiction and would not be managed under the proposed SMP.

**Victoria**

Four erosion sites have been identified along the impoundment. Little information is known about these sites, but review and/or treatment of erosion sites would be covered by the amended ESCP. All of the erosion sites are located outside of proposed development areas. Among the stated goals of the SMP are goals to avoid or minimize the potential for erosion due to new development, to monitor any erosion that occurs, and to implement erosion control measures when warranted.

The proposed land use classifications allow development on about 17.2 percent of the shoreline. The proposed development of access trails across and along the buffer zone would increase potential erosion from runoff, although the proposed measures requiring trails to meander from the water's edge to the outer limit of the buffer and use of wood chips on the trails may reduce erosion potential somewhat. The construction, installation, removal, and storage of temporary boat docks on the shoreline would increase the potential for erosion on the shoreline embankments.

Potential upland development outside of the 200-foot buffer zone associated with future shoreline uses would reduce vegetative cover in the watershed and ultimately result in increased sedimentation and erosion in the impoundment. Upland development outside of the project boundary; however, is outside of FERC's jurisdiction and would not be managed under the proposed SMP.

### **Both Reservoirs**

The extent of the potential erosion is difficult to assess because there are no established plans for development of the non-project lands adjacent to the project boundary. The licensee states in its proposal that a maximum of 320 private boat slips, plus possibly an additional 15 private slips, are proposed at the Bond Falls reservoir. The SMP prohibits docks from being installed on Victoria reservoir. The SMP includes provisions for the protection of the impoundment shoreline by allowing minimal activity by following specific design criteria. This would prevent erosion and runoff from construction along the shoreline. Approval of the SMP with the proposed use of the design criteria and BMPs would likely protect the project's resources from short-term erosion potential that could be caused by future construction of pathways. Activities allowed under the SMP would allow for more compact surfaces that would result in greater run-off which would have a minor long-term erosion potential.

UPPCO specifically states, under section 9.1, that it has prohibited permittees from using motorized vehicles on project lands to minimize the potential for increases in soil erosion and sedimentation. The design criteria under section 7.3.3.1 specifically state that public paths are permitted for pedestrian use only; no motorized vehicles are permitted on the paths except for project maintenance and enforcement action as directed by UPPCO. The only permitted use of motorized vehicles under section 7.3.1 is designated for recreation areas, existing roads and project operations areas, and as necessary for the launching and removal of boats or the drop-off and pickup of boating supplies, or as needed for access by people with disabilities. Therefore, motorized vehicles may only be used in specific areas, and only for specific purposes. In general, motorized vehicles are not to be used within the project area. The designated areas that allow for limited motorized vehicle access are areas that do not contain identified rare, threatened, or endangered species habitat, wetlands, cultural resource, and/or other highly sensitive terrestrial or aquatic habitat. With limited use of motorized vehicles allowed, if



enforced, there still would be the potential for some erosion to occur; however, it is not expected to be significant.

Implementation of the proposed SMP would result in some unavoidable sedimentation and erosion as the development allowed by the SMP is realized. However, if the anticipated development occurs gradually, and if the licensee continues to adequately implement the proposed plan's shoreline management guidelines and associated programs, including the stabilization technique selection process and use of BMPs, as well as the requirements of the riverbank survey and erosion control plan, the unavoidable impacts on soils are not expected to be significant.

## **2. Water Resources**

### **a. Affected Environment.**

The Bond Falls Project is located on the Ontonagon River, which drains directly into Lake Superior. The Cisco, Bond Falls, and Bergland developments serve as storage reservoirs for the Victoria development, which is the location of the only power generating facilities for the project. The proposed SMP pertains only to the Bond Falls and Victoria developments.

There are multiple stream gages within the Ontonagon River Basin that measure the streamflow within the several branches of the river. U.S. Geological Survey (USGS) gage no. 04033000 records the inflow to the Bond Falls development, which has an average annual inflow of 169 cfs and monthly average flows ranging from 105 cfs in February to 353 cfs in April. Inflow to the Victoria development is measured by several gages, and there are also some ungaged tributaries. Outflow from the Victoria development, along with flow from the Middle Branch and East Branch Ontonagon River, is measured at USGS gage no. 0404000 near Rockland, Michigan. The average annual flow at this gage is 1,386 cfs, with monthly average flows ranging from 783 cfs in August to 3,987 cfs in April (FERC, 2002).

The Bond Falls reservoir is a 2,160-acre impoundment (referred to as Bond Falls flowage) with a total storage volume of about 42,000 acre-feet at the normal maximum surface elevation of 1,475.9 feet above mean sea level (msl). The impoundment is about 3.2 miles long with a maximum width of about 2.3 miles. The reservoir is used for storage of flows that are later used for hydro generation at the Victoria development. The reservoir level may be drawn down about 8 feet to its lowest level between February 1 and April 30, for storage of spring runoff, and then is refilled, typically reaching its maximum elevation in May/June, with a slow drawdown during the summer and fall months. From May 1 through January 31 the drawdown is limited to 6 feet, with specific end-of-month target elevations. Approximately 80 percent of the inflow to Bond Falls flowage is diverted via the Bond Falls canal to the South Branch Ontonagon River, which

flows into the West Branch and then into Victoria reservoir. UPPCO passes a minimum flow into the Middle Branch downstream of the Bond Falls dam of 110 cfs in April, 100 cfs in May, 80 cfs from June through October, 90 cfs in November, and 80 cfs from December through March. A minimum flow of 25 cfs and a maximum flow of 150 to 175 cfs, depending on the time of the year, are also required for the Bond Falls canal.

The Victoria reservoir has a surface area of 250 acres at its maximum water surface elevation of 910 feet msl. The reservoir has a gross storage capacity of 10,500 acre-feet, is about 2.3 miles long, and ranges in width from about 250 feet at its narrowest point up to about 2,500 feet at its widest point. For most of the year the maximum drawdown is 3 feet, although the full 3-foot drawdown can not be used on a daily basis. During March the reservoir may be drawn down up to 8.5 feet, but by April 15 the reservoir must be returned to a drawdown level of no more than 1.4 feet. From April 15 through June 15 the development is operated in an instantaneous run-of-river mode, and the remainder of the year the powerhouse is operated so that the minimum flow from the powerhouse is not less than 50 percent of the maximum hourly generation flow from the previous day. From April 15 through June 15, UPPCO releases a minimum flow of 150 cfs from the Victoria dam into the bypassed reach.

The state of Michigan has classified both the Bond Falls and Victoria reservoirs as a warmwater fishery, but the Middle Branch Ontonagon River downstream of the Bond Falls reservoir and Roselawn Creek (which receives the discharge from the Bond Falls canal) are classified as coldwater trout streams. The West Branch Ontonagon River upstream and downstream of Victoria reservoir is classified as warmwater fishery. The state water quality standards for warmwater fishery require a minimum dissolved oxygen (DO) level of 5.0 mg/l and a water temperature no higher than 83°F in July and 38°F in January. For coldwater trout streams, state standards call for a minimum DO level of 7 mg/l and a maximum water temperature of 68°F in June, July, and August, and 38°F in January. The standards also stipulate that coldwater trout streams should not receive a heat load that would increase water temperatures more than 2°F above ambient natural temperatures.

FERC (2002) reported that water quality generally met state standards in the project area, although both Bond Falls and Victoria reservoirs exhibited some stratification, with lower DO levels below state standards at depth. Both DO and water temperature generally met state standards for coldwater trout streams in the Middle Branch downstream of Bond Falls dam, although water temperatures have occasionally exceeded the state standard of 68°F in August. Victoria reservoir exhibits elevated turbidity levels, as does the West Branch Ontonagon River upstream of Victoria reservoir. FERC (2002) also reported that both the Bond Falls and Victoria reservoirs appear to affect both water temperature and DO levels, with generally higher water temperatures and lower DO levels measured downstream of the reservoirs, compared to upstream of the reservoirs. Pursuant to article 409 of the license and the approved ESCP,

UPPCO monitors water temperature and DO at the project; and monitors for bank erosion and implements required shoreline erosion control measures, respectively.

b. Environmental Impacts and Recommendations.

The proposed SMP would provide for shoreline protection at both the Bond Falls and Victoria reservoirs, through Conservation shoreline classifications, with no non-project, private development to be allowed along the Victoria reservoir shoreline. Approval of the SMP with the shoreline protection measures would likely protect water quality in the Bond Falls reservoir from the effects of future construction of docks and related facilities along the shoreline. At Bond Falls, the SMP includes provisions for protection of 67.4 percent of the reservoir shoreline, through the Conservation shoreline classifications, including 62.3 percent of the shoreline where no development would be allowed along the shoreline. The remaining 5.1 percent of the shoreline under the Conservation classification would allow limited public paths that must follow specific design criteria. An additional 15.6 percent of the shoreline would allow General Use/Formal Recreation, while 17 percent of the shoreline would be maintained for project operations. At Victoria reservoir, 82.8 percent of the shoreline would be designated under the most protective Conservation classification where no development would be allowed along the shoreline. An additional 5.7 percent of the shoreline would allow General Use/Formal Recreation, while 11.5 percent of the shoreline would be maintained for Project Operations. The licensee does not propose any changes in reservoir operations from the current license conditions.

The MI Hydro Relicensing Coalition, the Keweenaw Bay Indian Community, U.S. Forest Service, MDNR, National Park Service, and FWS commented that amendment to the existing (Article 409) water quality monitoring plan would be required, because of the potential for water quality impacts associated with increased recreation resulting from the SMP. UPPCO has identified 8 individual and 42 cluster dock locations to accommodate a maximum of 320 private boat slips on Bond Falls reservoir. In addition, there may be a need to locate up to 15 additional private slips for landowners located near the reservoir. The potential addition of up to 335 private boat slips on the reservoir would lead to an increase in motorized boating on the reservoir and associated pollution.<sup>12</sup> Other commenters also expressed concern about increased development and recreational boating and potential adverse effects on water quality. UPPCO stated that amendment of the water quality monitoring plan is not required because increased boating would likely occur on the reservoir with or without the SMP, and it is unaware of any other lakes in the area that were required to implement a water quality monitoring plan with an increase in recreational usage. UPPCO also would implement a number of improvements to existing boat ramps and other recreational facilities on Bond Falls reservoir, but is not proposing any major improvements on Victoria reservoir.

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<sup>12</sup>No additional boat slips, however, are proposed on Victoria reservoir.

The addition of the boat slips/docks is the only component of the SMP that would have the potential to disturb the reservoir shoreline and near-shore area and affect water quality. The installation and removal of the boat slips would have the potential to disturb the reservoir bottom, whether the boat slips are floating (with anchors) or free-standing (with roller supports). Although the effects would be short-term and generally restricted to the immediate dock area, there would be the potential for some disturbance of bottom sediments and an increase in turbidity during installation and removal. The total number of docks that would actually be placed in the Bond Falls reservoir is unknown at this time. Although the licensee states there is the potential for a total of up to 335 private boat slips, the schedule for development may be spread over many years, depending on the demand for boating in the reservoir, so any impacts related to dock installation would similarly be spread over many years. Slower development of the boat slips over many years would result in fewer impacts than development of all the slips over a shorter period of time.

Increased motorized boating in the reservoir would increase the potential for water quality effects, associated with oil and gas leakage from outboard motors, and the release of sewage from the boats. Although sewage discharge from boats would be prohibited, some leakage or illegal discharge of sewage may occur in small quantities.

Motorized boating, however, is generally not considered a major water quality issue—motorized boating is allowed and encouraged on lakes and reservoirs throughout the United States, most of which support healthy fish populations and valuable recreational fisheries. Motorized boating would have no effect on water temperatures or DO concentrations in the reservoir, so the existing warmwater fishery water quality criteria would not be violated as a result of any increased boating. Motorized boating may take some years to become fully established on the Bond Falls reservoir. For these reasons, we conclude that water quality would not be significantly affected, and amendment of the water quality monitoring plan related to increased boating would not be necessary at this time.

### **3. Fishery Resources**

#### **a. Affected Environment.**

Bond Falls reservoir is a moderate-sized water body of about 2,160 acres, with a maximum depth of 40 feet. The impoundment has excellent fish habitat with an abundance of shallows and woody debris, and supports a mixed coolwater/warmwater fishery for smallmouth bass, walleye, northern pike, rock bass, yellow perch, bluegill, pumpkinseed, black crappie, bullheads, and cisco. The Middle Branch downstream of Bond Falls dam supports an important coldwater fishery for brook trout and brown trout, supported in part by stocking. The river downstream of Agate Falls (8 miles downstream

of the dam) also supports spawning runs of steelhead trout, Chinook salmon, and coho salmon from Lake Superior (FERC, 2002).

Victoria reservoir is a relatively small, 250-acre but deep reservoir with a maximum depth of about 115 feet. The reservoir shoreline is relatively steep, with few shallow shoal areas. The reservoir, however, supports a good coolwater/warmwater fishery for walleye, northern pike, muskellunge, smallmouth bass, black crappie, yellow perch, pumpkinseed, and rock bass. The West Branch downstream of the Victoria development supports spawning runs of salmonids and walleye from Lake Superior.

b. Environmental Impacts and Recommendations.

Implementation of the proposed SMP would not change project operations. Generally, there would be no effects on the fishery resources in the reservoirs or downstream of the reservoirs. None of the commenting parties made any specific recommendations regarding fishery resources, in response to the Commission notice of the SMP, and implementation of the SMP would not require any specific mitigation for resident fishes. Some of the commenting parties (MI Hydro Relicensing Coalition, the Keweenaw Bay Indian Community, U.S. Forest Service, MDNR, National Park Service, and FWS), however, expressed some concern about the potential disturbance of shoreline, shallow-water fisheries habitat during the installation and removal of proposed boat slips in Bond Falls reservoir.

Shoreline protection measures to be implemented as part of the SMP would act to protect near-shore shallow-water habitat that is important for fish spawning and juvenile rearing. In Bonds Falls reservoir, protection of shoreline vegetation along 67.4 percent of the reservoir shoreline that would be classified as conservation lands would prevent erosion and sedimentation (associated with any shoreline construction activities) from reaching this important shoreline habitat. Major recreational improvements proposed by UPPCO for Bond Falls reservoir would mainly involve improvements to existing facilities, so shoreline construction activities in the areas classified as General Use/Formal Recreation would be limited and would not adversely affect shoreline fisheries habitat. In Victoria reservoir, 82.8 percent of the shoreline would be classified as Conservation lands, plus an additional 11.5 percent of the shoreline would be reserved for Project Operations. No boat slips or other major recreational facilities are proposed for Victoria reservoir, so no effects would occur on fisheries habitat.

As discussed in section VI.C.2, *Water Resources*, the installation and removal of the proposed docks/boat slips would disturb some of the shallow-water near-shore habitat. Installation and removal of anchors and “launching” and removal of docks with wheeled supports would disturb bottom sediments and affect submerged aquatic vegetation in the immediate area, resulting in the loss of some fish habitat. This habitat, however, would reestablish once the disturbance related to installation and removal subsides. For docks installed in areas with cobble or gravel substrate, the disturbance to

bottom sediments would be less because of the harder substrate and less fine sediment. Some gravel or cobble could be moved by the installation and removal process, but as with the finer substrate habitat, fish and other aquatic biota could quickly reestablish in the area after the activity subsides. The SMP would also prohibit installation of docks before Memorial Day in late-May, so the spring-spawning species that typically spawn before Memorial Day would be protected. During boat operations near the docks in the summer months, there also would be the potential for disturbance of the reservoir bottom associated with propeller strikes or boats running aground, but the overall area of aquatic habitat likely affected would be small. A potential benefit of the docks would be to provide shade and cover for reservoir fishes, although both of the reservoirs already have an abundance of cover associated with woody debris and other shoreline structure (boulders, ledge).

#### **4. Terrestrial Resources**

##### **a. Affected Environment.**

Mixed deciduous and coniferous forests dominate the land in the immediate vicinity of the Bond Falls and Victoria reservoirs. Dominant overstory species in the project area include sugar maple, yellow birch, and eastern hemlock. Subdominant overstory species include red maple, white ash, black cherry, black ash, basswood, white birch, northern red oak, northern white cedar, white pine, balsam fir, American elm, rock elm, red spruce, white spruce, and ironwood. Predominant understory species consists of Labrador tea, sedges, tag elder, mints, grasses, dewberry, raspberry, red elderberry, Canada blueberry, creeping snowberry, jewelweed, and various ferns and herbs.

UPPCO currently manages project lands in accordance with the nuisance plant control plan, buffer zone plan, wildlife and land management plan, and threatened and endangered species protection and enhancement plan, pursuant to articles 411, 413, 414, and 415 of the license. The objectives of these plans are to manage the forests for consumptive and non-consumptive use and protect endangered resources. Forest management practices are focused on future timber values and minimizing biological pests or other forest health problems.

In June 2006, UPPCO's consultant surveyed the Bond Falls Project area for rare, threatened, or endangered species habitat and noxious weeds (E-PRO, 2006). UPPCO did not observe any Federal or state rare, threatened, or endangered plant species. Surveyors did observe two invasive species (orange hawkweed and reed canary grass) at Bond Falls and three invasive species (glossy buckthorn, orange hawkweed and reed canary grass) at Victoria. None of these species are on the state of Michigan or Federal noxious weed lists.

Wetland surveys identified and mapped four vegetated wetland types at the Bond Falls reservoir. UPPCO classified the wetlands in accordance with Cowardin et al.

(1979) and they consisted of the palustrine emergent persistent (PEM1) and palustrine scrub-shrub broad-leaved deciduous (PSS1), palustrine forested needle-leaved deciduous and needle-leaved evergreen (PFO2/4), and palustrine forested broad-leaved deciduous (PFO1) cover types. Wetlands occur throughout the reservoir along protected shores and coves. Maps of existing wetland habitats are presented on figures 7-1A – 7-1F in the SMP (UPPCO, 2007). At Victoria, wetland surveys identified and mapped PEM1, PSS1, and PFO1 wetlands.

Dominant plant species observed within the PEM cover types include reed canary grass, tussock sedge, broad-leaved cattail, narrow-leaved cattail, and soft stemmed bulrush. Common plant species within the PSS1 cover type include tag alder, sandbar willow, pussy willow and black willow. Dominant species in the PFO1 include tag alder, American elm, box elder, red maple, and yellow birch. Common species in the PFO2/4 wetlands include black spruce, tamarack, and bog rosemary.

The Ontonagon River Basin provides a variety of wildlife habitat, and most of the animal species that are common within the Upper Peninsula of Michigan also occur within the project. Typical game species include white-tailed deer, moose, black bear, coyote, and fox. Common non-game mammals include beaver, red squirrel, snowshoe hare, mink, weasel, raccoon, otter, woodchuck, muskrat, least chipmunk, and coyote. Wetland areas within the project provide habitat for a variety of reptiles and amphibian species including American toad, eastern box turtle, snapping turtle, pine snake, and garter snake. Throughout the year, the project also supports a diverse bird community that includes year-round residents, breeders, and transients that stop to rest and feed during migrations. Common upland species include warblers, ruffed grouse, swallows, common raven, common yellow throat, black-capped chickadee, hermit thrush, red-breasted nuthatch, and hummingbirds. Waterfowl species include mallard, green-winged teal, bufflehead, Canada goose, common merganser, pied-billed grebe, ruddy duck, ring necked duck, wood duck, and American black duck. Several raptors and other predatory species are also prevalent and include red-tailed hawk, broad-winged hawk, and belted king fisher.

In addition to those listed above, several state sensitive species occur within the project. State-listed threatened species include common loon (*Gavia immer*), osprey (*Pandion haliaetus*), bald eagle (*Haliaeetus leucocephalus*), and gray wolf (*Canus lupus*). Wood turtles (*Clemmys insculpta*), a state species of special consideration, also occur in the project area. Federally listed wildlife species are discussed in section VI.C.5, *Threatened and Endangered Species*.

UPPCO manages wildlife in project lands in accordance with the approved wildlife and land management plan and buffer zone plan. Objectives of these plans include managing wildlife resources for consumptive and non-consumptive use and protecting and enhancing wildlife habitat. Components of this plan include a program to

educate recreationalists about loon protection, the installation of loon and osprey nesting structures, and restoration of wild rice.

During field surveys, UPPCO biologists observed numerous adult and immature bald eagles, and suitable nesting or perch trees at Bond Falls and Victoria. The survey recorded one active eagle nest at Victoria. No active nests occurred at Bond Falls. The survey did not document osprey at either site. Surveyors encountered one female wood turtle at both Bond Falls and Victoria and documented some suitable wood turtle nesting area at Bond Falls. MDNR data on wolf movements in the Upper Peninsula indicate that wolf packs use territory within 1 mile of Bond Falls and Victoria reservoirs.

On June 13 and 14, 2006, UPPCO biologists conducted a specific survey focused on describing the presence of suitable loon habitat at Victoria and Bond Falls. The biologists conducted the survey from the water, slowly inspecting the entire shoreline and circumference of all islands. The surveyors identified potential loon nesting habitat based on the characteristics of the general physical habitat, hydrology, water quality, foraging habitat, chick rearing habitat, and existing human disturbance levels. During the study, the surveyors did not encounter loons at Victoria. Surveyors observed two pairs of loons, one active nest and several solitary loons at Bond Falls. Following the habitat analysis, UPPCO identified 9 islands and 7 separate stretches of shoreline as supporting potential loon habitat.

#### b. Environmental Impacts and Recommendations.

UPPCO's SMP allows non-project activities within the project boundary surrounding the Bond Falls and Victoria reservoirs: Non-project operation lands within the project boundary have been classified into three management zones: Conservation – Limited Public Trail Area, Conservation – Limited Public Path, and General Use/Formal Recreation Area (see section IV.1 for complete descriptions of these classifications). Activities permitted by or resulting from implementation of the SMP that could affect vegetation and wildlife in the project boundary include (1) removal of forest undergrowth and tree limbs to create pedestrian access paths from adjacent properties, (2) installation of seasonal docks and access ramps, (3) creation of a public recreational trail around the perimeter of the reservoir, and (4) increased human activity.

#### **Vegetation**

Under the proposed SMP, UPPCO would permit some limited vegetation removal in all zones. To minimize environmental effects, landowners could only remove shrubs less than 2 inches in diameter at a height of 5 feet, and tree limbs below a height of 8 feet above paths and trails. Landowners could remove such vegetation only within the 4-foot width of paths and the 6-foot width of the public trail. UPPCO would limit path construction by requiring abutting parcel owners share a common path and requiring new paths to follow existing paths wherever possible. The SMP would not allow enhanced



view clearings or the removal or trimming of eastern hemlock, den cavity/nesting trees, wolf trees, or fruit or mast bearing trees. In all areas not permitted for trail, or path, construction, the SMP would prohibit non-project related activities and would manage vegetation for old growth forest.. UPPCO maintains that implementation of the SMP would increase lands subject to the buffer zone plan by 57 percent at Bond Falls and 67 percent at Victoria and that such increases would offset adverse effects associated with trails and paths.

In their January 28, 2008, letter, the Resource Agencies expressed concern that the removal of vegetation as permitted by UPPCO's SMP would not promote the development of old growth forest and would result in fragmentation. The Resource Agencies also commented the removal of vegetation for paths and public trails is not consistent with the approved buffer zone plan. The agencies also state a direct comparison between acreages in the license-mandated buffer zone and the conservation zones designated by the SMP is not valid because the buffer zone plan provides more stringent protection.

Removal of shrubs and tree limbs for the construction of trails and paths would have an unavoidable negative effect on wildlife habitat. Wildlife species including a variety of perching birds, ground nesting birds, and small mammals utilize the shrubby mid-story canopy and cover provided by shrubby vegetation for nesting, foraging, and protection from predation. As proposed only 5.2 percent of the land within the Bond Falls project boundary would be within conservation zones where the SMP would permit clearing for paths. No path clearing would be permitted at Victoria. Within 74 percent of the land within the Bond Falls project boundary and 69 percent of the land at Victoria, the SMP would limit non-project use to the construction of a public trail. The creation of a public trail and paths would result in a small reduction of mid-forest canopy and shrub cover and decrease habitat connectivity within this layer. These effects would cause a minor reduction in nesting and perching habitat for some bird species, and reduce protective shrub cover for ground nesting birds and small mammals. The selective removal of tree limbs would have a small effect on the canopy layer in the forest, causing small decreases in habitat and connectivity. The removal of limbs would also reduce canopy cover, allowing more sunlight to reach the forest floor and changing microhabitat conditions like temperature and humidity. Because trails and paths would be 4 to 6 feet wide, the reduction in habitat connectivity would be minimal and predominantly affect small mammals and amphibian species traveling across the cleared areas. The permitting process would limit disturbance in these areas because it requires landowners adjacent to UPPCO lands to share paths and receive UPPCO approval prior to removing vegetation.

While the clearing of vegetation would have an unavoidable effect on forest structure and habitat, the extent of the area where UPPCO would permit clearing at Bond Falls and Victoria is small relative to the entire project area. Permitting the limited

removal of vegetation within this area would not change the general character of the vegetation community surrounding the reservoir.

Although UPPCO has developed design criteria for paths, site visits may be required. UPPCO states that violations may lead to cancellation of permits, removal of encroachments, and/or remediation of damages; the proposed SMP does not adequately address UPPCO's monitoring of such activities. Without proper guidance, the potential for landowners to accidentally remove vegetation restricted by the SMP is high. Additionally, without visiting a site prior to and after vegetation removal, it would be difficult to determine whether violations occurred. Remediation of such violations would be difficult, and may not be possible. Pre-clearing site visits could flag the boundary of the area to be cleared, flag stems that are restricted from cutting due to size and/or species, and identify tree limbs where trimming would be allowed. Implementing these measures would ensure that the landowners are in compliance with the design criteria. A pre-clearing visit also would provide UPPCO a baseline condition of the area, and enable the accurate identification of violations during a post-clearing site visit. If UPPCO would commit to pre- and post-clearing site visits, it would minimize the potential for accidental violations of the design criteria, and the resulting effects on vegetation.

### **Wetlands**

In the proposed SMP, UPPCO states that potential effects on wetlands would be limited to the creation of paths, the public recreational trail, and seasonal access ramps to docks. While siting and constructing the public recreation trail, UPPCO would consult with Resource Agencies and work to avoid wetland effects wherever possible. In instances where wetland crossings are unavoidable, UPPCO states that it may incorporate steps or wooden walkways. According to the SMP, if construction or maintenance activities would result in unacceptable effects, UPPCO may not construct some portions of the trail. UPPCO would determine the location of docks based on bathymetric, topographic, and on-site environmental data so as to minimize effects on wetlands.

Resource Agencies commented that UPPCO should have collected more data related to wetlands and aquatic resources prior to developing the SMP. The agencies stated that UPPCO should have collected more data related to gravel lenses, woody structure, and aquatic vegetation. The agencies also commented that several of the proposed locations for seasonal dock storage are located adjacent to wetlands and could negatively affect these areas.

Wetlands are a prevalent component of the shoreline surrounding the Bond Falls reservoir and are also present at Victoria. The importance of wetlands to ecological health includes improvements to water quality, providing habitat for wildlife, and preventing shoreline erosion. In many cases, identified wetlands within the project area are surrounded by the Conservation – Limited Public Trail classification. However there are also instances where wetlands are abutted by Conservation – Limited Public Path and

General Use/Formal Recreation Areas. Wetland effects would occur if paths, trails, or docks were constructed or stored in any wetland habitat. If the proposed SMP included language prohibiting the removal of vegetation in wetlands, and stipulating that UPPCO or the landowner consult the Michigan Department of Environmental Quality on any unavoidable effects under section 404 of the Clean Water Act, UPPCO would further minimize the effects on wetlands.

### **Noxious Plant Species**

Vegetation removal and increased human presence in the project area could result in an increased potential for nuisance species establishment. To mitigate these effects, UPPCO proposes to conduct a public awareness program on nuisance species and the control of garlic mustard and continue following the existing approved noxious plant control plan targeted at purple loosestrife and Eurasian water milfoil. UPPCO also proposes to monitor and control additional nuisance species identified by the Resource Agencies, provided the agencies have effective, economical, and reasonable control techniques to extirpate species from the reservoirs as demonstrated through the agencies' own control programs. UPPCO would also continue an effort to remove garlic mustard initiated in 2006, following consultation with the Forest Service.

The Resource Agencies assert that the creation of trails, paths, roads, and recreation areas, increased use of watercraft, and increase in human use would greatly increase the potential for the spread of noxious plants.

The removal of woody forest vegetation would allow additional sunlight to reach the forest floor. Additional sunlight and increased temperature would change microhabitat conditions and potentially alter the composition of forest floor vegetation. This change in microhabitat combined with soil disturbance associated with path and trail construction would increase the potential for invasive terrestrial weeds to colonize that area. UPPCO's proposed community education plan and additional monitoring for species not already identified in the approved noxious plan monitoring plan would partially mitigate the potential for nuisance species to have negative ecological effects. As currently written, the noxious plant monitoring plan only includes monitoring of aquatic and wetland areas. The plan does not evaluate the potential introduction of terrestrial invasive species such as orange hawkweed which has been documented in the vicinity of the project. If UPPCO would evaluate the expected effects on vegetation in a quantitative manner and work with Resource Agencies to develop an appropriate monitoring and control plan for terrestrial invasive species, the risk of a negative effect resulting from noxious weeds would be minimized.

### **Wildlife**

To minimize potential effects on wildlife, UPPCO proposes to place limits in the SMP on the types and quantities of vegetation that landowners could remove to create

trails and paths. The SMP specifies that all other areas be left in a natural state and prohibition of any non-project activities.

In their January 28, 2008, letter, the Resource Agencies state that vegetation removal permitted by the SMP for the creation of trails and paths would result in the reduction of wildlife habitat in the forest understory. The Resource Agencies also state the increases in human presence associated with the paths, trails, and docks would increase disturbance to wildlife.

In comments filed with the Commission, numerous individuals and organizations, including the Upper Peninsula Public Access Coalition, the Upper Peninsula Environmental Coalition, Friends of the Land of Keweenaw, the Michigan Hydro Relicensing Coalition, Northwood Alliance, Common Coast Research and Conservation, and Northwoods Wilderness Recovery, wrote that the proposed SMP would result in the reduction of wildlife habitat and increased human disturbance to wildlife. Comments also included concerns about increases in habitat fragmentation and that the study of existing natural resources was inadequate. Numerous other individuals and organizations, including state representatives, the Alger County Board of Commissioners, the Lake Superior Community Partnership, and Save Our Schools/Share Our Shorelines, wrote that UPPCO has sufficiently incorporated protection to wildlife within the SMP.

The proposed SMP's effects on wildlife would depend on the quantity of overall reductions in vegetation permitted by UPPCO. As discussed above, the potential exists for some localized reductions in understory canopy as shrubs and tree limbs are cleared around trails and paths. This habitat provides perching and foraging sites for a variety of birds present in the project area including wood thrush, chickadee, and eastern wood pewee. Increases in human presence within the 200-foot buffer area and on the lake would likely result in some wildlife avoiding areas of expanded human disturbance. Proposed limits on vegetation removal should preserve most existing wildlife habitat.

### *Bald Eagle*

To minimize potential effects on bald eagles and osprey, the proposed SMP would not permit any removal or trimming of eastern hemlock, wolf trees, fruit or mast bearing trees, or den cavity/nesting trees. One active bald eagle nest was identified during field studies at Victoria. No nests were recorded at Bond Falls, but surveyors did record the presence of several eagles. To protect these resources, UPPCO would continue to follow protocols approved within the threatened and endangered species protection and enhancement plan. The approved plan designates three zones of protection around eagle nests with restrictions on activities in each zone dependant on the distance to the nearest nest. The plan also includes monitoring of eagle nests within the project area.

In their January 28, 2008, letter the Resource Agencies assert that the environmental study UPPCO based management decisions on failed to identify all the

bald eagle roosting and super canopy tree areas currently present within the project. Therefore, the Resource Agencies state that UPPCO completed the SMP while relying on insufficient data and the designation of different conservation zones did not adequately consider potential bald eagle habitat. Resource Agencies also comment that the construction of roads, removal of vegetation, and increases in human activity resulting from the proposed SMP would create additional disturbance to the bald eagle. The agencies note the most critical areas to manage for bald eagle habitat are those areas along the shoreline. They state that increasing acreages under old-growth forest management away from the shoreline would not offset effects to eagles associated with disturbance near the shoreline because eagles do not use the upland areas as frequently.

Implementation of the proposed SMP could affect bald eagles through increased human presence within the project area and the removal of vegetation suitable for bald eagle roosting and nesting. The construction of docks and resulting increases in boat traffic would increase disturbance to foraging eagles that can be sensitive to noise. It is not possible at this time to determine if such disturbance would be detrimental to the local eagle population because eagles vary in their sensitivity to human presence, and the future level of boat activity is unknown. However, UPPCO's existing bald eagle management plan places restrictions on activities proposed in the SMP near eagle nests. These restrictions would likely provide adequate protection to bald eagles. While UPPCO stipulates that no eastern hemlock trees would be removed or limbed, no similar restriction is placed on red pine or white pine, both of which occur in the area and may provide habitat for eagles. Broadening the restriction to all super canopy trees would reduce the potential for reducing bald eagle roosting and/or nesting areas.

### *Osprey*

Following consultation with Resource Agencies, UPPCO selected sites for the two osprey platforms required by Article 414. In 2008, UPPCO requested and received a one-year extension for the construction of these structures. The proposed SMP classifies areas surrounding both structure sites as Conservation – Limited Public Trail. UPPCO would site the proposed public trail in consultation with the Resource Agencies to minimize effects on wildlife. Resource Agencies commented that the SMP proposes General Use / Formal Recreation Area and seasonal dock storage near one of the future osprey platforms. The Resource Agencies are concerned that boat traffic associated with the spring retrieval of docks could disturb nesting osprey. Osprey are generally more tolerant of human activity than bald eagles. However, both the recreation area and associated dock storage and the osprey nesting platform site are located in a small secluded bay where the potential for disturbance is high. If UPPCO, in consultation with Resource Agencies, would identify a more suitable location for the future osprey platform, the potential for disturbance to nesting osprey would be reduced.

### *Common Loons*

The proposed SMP identifies areas where suitable loon nesting habitat exists. Many of these areas are included within the Conservation – Limited Public Trail Area. However, identified loon nesting habitat is also bordered by Conservation – Limited Public Path and General Use / Formal Recreation area. Additionally, eight cluster docks are proposed and numerous informal recreation sites exist along shoreline identified as loon habitat. To help mitigate effects on the common loon, UPPCO proposes to designate two no wake zones. Additionally, the approved wildlife and land management plan includes limits on which islands are open to camping, a public education program about loon harassment, and the construction of loon nesting platforms.

The Resource Agencies comment that the SMP insufficiently protects identified loon habitat. Resource Agencies also state the studies and observations of the common loon at Bond Falls should continue and that these studies should then form the basis for any enhancement measures necessary for ensuring future nesting success. Common Coast Research and Conservation, a non-profit organization that studies common loons in Michigan comment that the single-day survey conducted in mid-June was insufficient to adequately assess loon resources at the Bond Falls impoundment.

Implementation of the proposed SMP would result in increased human activity within the project area at Bond Falls. Scientific literature well documents the sensitivity of the common loon to human presence, yet numerous studies also indicate that this species can adapt to human disturbance and human activity does not always result in lower breeding success (Evers, 2004). Motorized watercraft, the ability of non-motorized watercraft to access shallow water, and irresponsible fishing practices all have the potential to disturb or harm loons (Evers, 2004), all of which would potentially occur within the project area under the proposed SMP.

Recommendations of buffer distances for protecting nesting loons vary. Heimberger et al. (1983) found the nesting success for loons was significantly lower at nest sites with cottages within 150 meters (492 feet) of the nest. FWS (Evers, 2004) recommends that floating signs be placed 450 feet from nest sites to request boats stay away from known nest areas. The state of Washington recommends a 490-foot buffer excluding all human activity from April to September (Washington Department of Fish and Wildlife, 2005) while the state of Maine recommends maintaining a distance of 250 feet (Maine Department of Inland Fisheries and Wildlife, 2008). The state of Michigan does not have a specific recommendation for loon protection.

The proposed SMP incorporates some loon habitats within the conservation areas and designates no wake zones in loon nesting areas. Additionally loons are provided some protection by the wildlife and land management plan. These measures would mitigate for some increases in disturbance to the loons. However, we agree with the

agencies that additional surveys are necessary to adequately characterize the loon population at Bond Falls and develop appropriate mitigation measures.

The report prepared by E-PRO indicates there are numerous informal recreation sites located in areas with loon nesting habitat. These areas have been zoned as General Use/Formal Recreation. Recreational activities in these areas, including camping, swimming, fishing, and boat launching, during loon nesting periods would create increased disturbance to loons nesting nearby. The installation and use of cluster docks near nesting loons also would create disturbance. The SMP could do more to reduce effects on this species. For example, if UPPCO relocated cluster docks currently planned for areas with loon habitat and restricted recreational activities within 450 feet of loon nesting areas, effects on loons could be reduced.

Additionally, where loon habitat is bordered by Conservation – Limited Public Trail, if UPPCO sited the future trail near the outer edge of the buffer area instead of within 100 feet from the shoreline, as proposed, potential effects would be minimized. Using signs to discourage boat traffic within 450 feet of nesting areas during the nesting season also would minimize disturbance levels. If UPPCO would continue to study the loon population at Bond Falls, as requested by Resource Agencies, the need for additional mitigation or nesting structures to ensure future nesting success would be identified. Following such studies, if UPPCO would consult with Resource Agencies to develop and implement a plan for promoting loon nesting success, effects to the common loon would be minimized.

### *Gray Wolf*

Increases in human activity, road improvements, and changes in land use adjacent to the project could make the project area less attractive to wolves. MDNR data indicate that wolf pack territories encompass areas within a mile of the Bond Falls and Victoria shorelines and wolves are likely to occasionally use the project area.

UPPCO notes that gray wolf populations in Michigan were federally delisted and are no longer protected under the Endangered Species Act. Management of grey wolf habitat within the project areas would continue to follow guidelines set in the threatened and endangered species protection and enhancement plan, which adheres to guidelines set by MDNR and the Ottawa National Forest.

Wolf packs vary in their tolerance levels of human activity. Some packs have abandoned dens following nearby road construction and logging. Other packs have been tolerant of human disturbances, even denning near logging sites, open-pit mines, garbage dumps, moss harvesters, and military firing ranges (MDNR, 2008). Based on estimated changes in land use conversion, road construction, human density, and land conservation through 2020, suitable wolf habitat in Michigan and northern Wisconsin is expected to be sufficient to support a viable wolf population (MDNR, 2008). However, increases in

human density and conversion of land use from forest to residential in areas surrounding the Bond Falls and Victoria Projects would likely reduce the frequency that wolves use this area. UPPCO would continue to abide by the approved threatened and endangered species plan concerning the management of wolf habitat. No additional measures are necessary to protect wolves.

### *Wood Turtle*

Implementation of the SMP could affect wood turtles through increased recreational activities in wood turtle habitat. Surveyors observed wood turtles at both the Bond Falls and Victoria reservoirs. At Bond Falls, areas identified as turtle habitat contain Conservation-Limited Public Trail, Conservation-Limited Public Path, and six cluster docks. Increased development and recreational use in this area could disturb turtle nests or interrupt nesting behavior.

Resource Agencies commented that the area around Little Falls (zoned as General Use / Formal Recreation) provides wood turtle nesting habitat.

UPPCO does not propose any mitigation measures for disturbance to wood turtle habitat, although public paths, public trails, and cluster docks are proposed in these areas. Effects on these areas would be dependent on the final layout of the proposed docks and frequency of use. Recreational activities surrounding boat docks have the potential to disturb nesting behavior, decrease access to nesting sites, and attract predators like skunk and raccoon that prey upon turtle eggs. At another of its projects, the Prickett Project, UPPCO has placed signs educating recreationalists about the presence of wood turtles and requesting limits to disturbance. Additionally, Resource Agencies suggest that wood turtle monitoring may be necessary at the Bond Falls Project. It is not clear why UPPCO is not proposing similar mitigation techniques for the Bond Falls Project. If UPPCO coordinates with the Resource Agencies to develop and implement an education and monitoring plan, monitoring the effects of recreational activities on turtle nesting areas, the need for additional mitigation could be evaluated. If such monitoring identifies adverse effects on nesting habitat and UPPCO subsequently develops and implements a mitigation plan, effects on the wood turtle would be minimized.

## **5. Threatened and Endangered Species**

### **a. Affected Environment.**

During the consultation process, FWS identified the federally threatened Canada lynx (*Lynx canadensis*) as the only federally listed species potentially occurring in the project area. Lynx prefer dense, mature stands of conifer or mixed conifer forests and are highly sensitive to the presence of humans (Michigan Natural Features Inventory, 2007). Common prey items include small mammals, beaver, deer, and birds, although the



snowshoe hare is their primary prey. In Michigan, recorded observations of Canada lynx exist in Keweenaw and Mackinac counties. There is no record of the species within Ontonagon and Gogebic counties.

b. Environmental Impacts and Recommendations.

To minimize effects on the Canada lynx, UPPCO would continue to manage those lands within the 200-foot buffer not subject to paths, or the proposed public trail as mature mixed forest. In their January 28, 2008, letter, the Resource Agencies did not make any comments directly related to the Canada lynx.

Forest within the project area may be suitable for lynx; however, due to the narrow buffer of land managed by UPPCO, the land within the project boundary is not a sufficient habitat area to support this species. If lynx are present in areas adjacent to the project, they could utilize project lands for dispersal, or as a component of their range. Implementation of the proposed SMP would result in some limited removal of mid-story and some upper story forest vegetation. Human presence within and adjacent to the reservoir is expected to increase in conjunction with increased development.

Canada lynx are secretive and sensitive to human presence. If development and human activity within and adjacent to the Bond Falls and Victoria reservoirs occur, it is unlikely that lynx would use this habitat. However, because there is no evidence that lynx have used this habitat in the past, implementation of the proposed SMP would have no effect on the Canada lynx.

*Road Closures*

Resource Agencies commented that the SMP proposal to maintain all roads present within project boundaries according to county specifications is in conflict with the threatened and endangered species plan that requires the closure of all temporary roads used for timber harvest. Because no permanent roads were contemplated during the development of the threatened and endangered species plan, Resource Agencies maintain that all roads in the project area not meant for access to project facilities or approved recreation sites should be considered temporary and should therefore be closed. UPPCO maintains that existing logging roads would be closed and that all roads identified in the SMP are not temporary.

**6. Aesthetic Resources**

a. Affected Environment.

The area surrounding the Bond Falls Project has high visual interest and diversity. The project developments offer pleasing settings with appealing land and water

relationships. The character of the landscape is typical of the western Upper Peninsula and features numerous forested lowlands, lakes, wetlands, streams, and waterfalls. Summer foliage, autumn colors, and winter snowscapes add seasonal interest and attract year-round visitors (FERC, 2002).

Aesthetic factors of the Bond Falls reservoir include its water quality and fluctuations in water level. The water of the impoundment is colored as a result of high tannin concentrations which occur naturally but this color does not seem to diminish the lake's draw for diverse recreation activities. Annual draw-down produces a significant change in water level, but exposes more sand (E-PRO, 2006a).

Bond Falls and Agate Falls (both on the Middle Branch) are instream landscape features of special scenic importance because of their height, width, clarity of water, and public use (FERC, 2002). Bond Falls is located about 500 feet downstream of the Bond Falls reservoir and Agate Falls is located about 8 miles downstream of Bond Falls reservoir (FERC, 2002).

The area surrounding the Victoria development is hilly and gently rolling with dense forest and vegetation. The dam structure and associated facilities are not visible from any local or state road, although the dam and concrete spillway are visible from the immediate project area. The penstock, an above-ground spiral wound steel pipeline 9.5 feet in diameter, parallels the access road to the powerhouse and generating facilities, which are located approximately 1 mile downstream. Views of Victoria reservoir shoreline from the dam are undisturbed and pristine (FERC, 2002).

The North Country National Scenic Trail is proposed to pass through the Victoria development downstream of the dam. This 3,200-mile trail links New York's Adirondack Mountains with the Missouri River in North Dakota. About 118 miles of the trail cross the Ottawa National Forest (FERC, 2002).

The Forest Service owns a total of 74 acres, of which 54 acres are submerged lands, within the project boundary at the Bond Falls development. The Forest Service uses a visual management system to inventory the visual condition of the forest, analyze visual management activities, and set Visual Quality Objectives (VQOs) for long-range planning. VQOs are tools used to guide future activities in the forest. There are five VQO designations, ranging from Preservation to Maximum Modification, each defining a different level of acceptable alteration to the landscape.

The Forest Service also manages certain segments of the Ontonagon River that are designated Federal Wild and Scenic Rivers (WSRs). Rivers with this designation are jointly managed and protected by the Bureau of Land Management, National Park Service, FWS, and the Forest Service. The following reaches of the Ontonagon River located near the subject reservoirs are designated within the WSR system. The Middle Branch from its origin to the northern boundary of the Ottawa National Forest. The West Branch from its confluence with Cascade Falls to Victoria reservoir (NWSRS, 2008).

Table 5. Wild and Scenic River Designations for Segments of the Ontonagon River downstream of the Bond Falls Project. (Source: FERC, 2002)

<b>Branch</b>	<b>Segment</b>	<b>River Designation</b>	<b>Visual Quality Objective</b>
Middle	Bond Falls Reservoir to Agate Falls (8 miles)	Recreational	Partial Retention
	Agate Falls to Trout Creek (6 miles)	Scenic	Preservation
	Trout Creek to Northern Boundary of Ottawa National Forest (17.4)	Wild	Partial Retention
West	From its confluence with the South Branch to Victoria Reservoir (4.5 miles)	Study	Retention/Partial Retention
	M-28 Crossing to Cascade Falls (12 miles)	Recreational	Retention

b. Environmental Impacts and Recommendations.

Over the long-term, additional shoreline development at the Bond Falls reservoir would likely occur under the proposed SMP. If developed to the fullest extent, this development would alter the existing landscape at the reservoir. The licensee states that a maximum of 320 private boat slips are proposed at the Bond Falls reservoir. Over time, the scenic character of the reservoir, as viewed from the water, would change from a rural, wilderness nature to a more developed landscape, consisting primarily of residential boating facilities that serve single- and multi-family dwellings.

Doug Welker, John Novak, Warren Miller, Jr., the Upper Peninsula Chapter of the Community of Enlightenment, John Coupe, Greg Wright, and Ken Franti filed comments with the Commission stating concerns with the potential impact on aesthetic resources. James Cameron Coleman specifically states any deterioration in water quality in any flowage may affect Wild and Scenic areas designated under the WSR Act. The waters of the Ontonagon River within the Bond Falls and Victoria Projects' boundary are not designated under the WSR Act. As stated in section VI.C.2, *Water Resources*, the addition of the boat slips/docks is the only component of the SMP that would have the potential to affect water quality. The installation and removal of the boat slips would have the potential to disturb the reservoir bottom, whether the boat slips are floating (with anchors) or free-standing (with roller supports). Although the effects would be short-

term and generally restricted to the immediate dock area, there would be the potential for some disturbance of bottom sediments and an increase in turbidity during installation and removal. Approval of the SMP with the shoreline protection measures would likely protect water quality in the impoundment and downstream of the dam from the effects of future construction of docks and related facilities in the water and would not affect the Scenic designation.

In comments filed with the Commission, numerous individuals and organizations, including the Upper Peninsula Chapter of the Community of Enlightenment, Long Lake Property Owners, Stannard Township, and Bond Falls Flowage Area Landowners commented the pre-filing environmental studies were inadequate because they failed to address the potential negative impacts on the segments of the river designated under the WSR Act. The licensee does not propose any operational changes that would affect flows within either designated reach. The licensee's approved recreation plan which includes access areas, boat launches, and a canoe portage around the dam would continue to ensure public access and the licensee is not propose any restriction to boating access. Approval of the SMP would not affect the WSR Act designation of either the wild or scenic segment of the Ontonagon River.

Lands along the Bond Falls shoreline designated as Conservation- Limited Public Trails comprise 62.3 percent of the shoreline. The remaining 5.2 percent of the shoreline under the Conservation classification would allow "limited public paths" that must follow specific design criteria. An additional 15.6 percent of the shoreline would allow "general use/formal recreation," while 17.0 percent of the shoreline would be maintained for project operations, which would also preclude shoreline development. This would prevent effects on water quality associated with erosion and runoff from construction along the shoreline. The licensee does not propose any changes in reservoir operations from the current license conditions.

To further minimize visual impacts at the Bond Falls reservoir, UPPCO would require the docks be low profile and use natural (muted) colors that do not stand out against the background landscape. Additionally, the installation of boat lifts and associated permanent dock lighting and electric service would be prohibited. The physical presence of the proposed boat docks would have a minor, long-term visual impact on the shoreline. Increased boating use on the reservoir would create long-term, intermittent noise impacts in the immediate vicinity.

Construction of paths and placement of seasonal individual and cluster docks at the Victoria reservoir would be prohibited and land would be classified according to only three shoreline classification categories to include Conservation – Limited Public Trail Areas, General Use/Formal Recreation Areas, and Project Operations Areas.

## 7. Cultural Resources

### a. Affected Environment.

The area of potential effects (APE) for this undertaking includes all lands within the project boundary around the Bond Falls and Victoria reservoirs. Review of the National Register of Historic Places (NRHP) does not indicate the presence of any historic properties within the APE for the project (NPS, 2008).

A Programmatic Agreement (PA) was executed on December 30, 1993, among the Commission, the Michigan State Historic Preservation Officer (SHPO), the Wisconsin SHPO, and the Advisory Council on Historic Preservation. This PA was included in Article 419 of the Bond Falls license. The PA required the licensee to develop a historic resources management plan (HRMP) that addressed (1) shoreline monitoring, (2) unsurveyed lands within the project boundary, (3) archaeological properties on non-managed lands within the project boundary, and (4) protection of the historic generating facilities. The PA further required the licensee to file a copy of the HRMP with the Commission and the SHPO for review. If the SHPO agreed with the HRMP, the licensee implemented the HRMP. On August 6, 2004, the licensee filed an HRMP with the Commission. On October 3, 2004, the Commission issued a letter to the licensee stating it had reviewed the HRMP and found it met the requirements of Article 419 and the PA. The licensee's HRMP contains detailed descriptions of the management procedures that would be implemented to assure appropriate consideration of any historic resources found in the project area during project operations and related activities.

During the relicensing process, the Michigan SHPO provided its opinion that the Victoria development, encompassing the dam, embankments, spillway, penstock, surge tank, and generating facilities met National Register criteria because of its engineering importance in the context of hydroelectric development in Michigan. Subsequently, Commission-mandated repair activities at the Victoria development included demolition of the top portion of the existing multiple-arch dam and its subsequent submergence behind a new dam structure. To mitigate the adverse effects of this action on National Register-eligible Victoria development, a Historic American Building Survey/Historic American Engineering Record documentation project was designed in consultation with the National Park Service and Michigan SHPO. In 1992, the National Park Service accepted the Victoria dam historic documentation (FERC, 2002).

Although no archeological sites have yet been recorded in the Bond Falls Project area, the Wisconsin SHPO considers the project shorelines to be very sensitive to for archaeological resources. We assume such sensitivity could extend to the Michigan portions of the project as well (FERC, 2002).

## b. Environmental Impacts and Recommendations.

Implementation of the proposed SMP would not change project features or operation. In the future, we expect that shoreline development would occur on the Bond Falls and Victoria reservoirs under the proposed SMP. As a result, there is the possibility of disturbing cultural resources at locations of ground-disturbing activity where shoreline facilities, such as boat launches, ramps, piers, barrier-free shoreline fishing areas, and ancillary facilities, would be constructed.

Unearthing archaeological artifacts or disturbing historically significant areas during any construction is a possibility and is considered a potential adverse impact of future development, including that which could occur under the proposed SMP. Disturbing currently unidentified archaeological sites could result in a loss of the sites' integrity and information that the site may offer. If sites are discovered during the implementation of an activity at the project, the licensee is required to suspend work activities, notify the SHPO, and contract with a professional archaeologist to conduct a Phase I site evaluation study as outlined in the HRMP. Given this information, we find that implementation of the HRMP would provide for adequate protection of historic properties, as it relates to the implementation of the proposed SMP.

## **8. Recreation and Land Use**

### a. Affected Environment.

The Ontonagon River Basin is an important recreational resource for the residents of the Western Upper Peninsula of Michigan. Tourism contributed \$40.7 million in revenue to Gogebic and Ontonagon counties in 1990. The outdoor recreational opportunities of the Bond Falls Project are within a day's drive of the metropolitan areas of Milwaukee (300 miles), Minneapolis/St. Paul (300 miles), and Duluth (200 miles). Ontonagon County encompasses 1,233 square miles and has a population density of about 6 people per square mile. The population settlement pattern surrounding the project developments is characterized as rural non-farm (FERC, 2002).

Local, state, federal, and private facilities provide diverse recreational opportunities in the region, including nature viewing, hiking, camping, picnicking, fishing, hunting, swimming, boating, waterskiing, snow skiing, and snowmobiling. Recreational opportunities are available on more than 93,000 acres of state and county public lands in both Gogebic and Ontonagon counties, including 68,000-acre Porcupine Mountains State Park. The Ottawa National Forest encompasses 980,000 acres of discontinuous lands in the western Upper Peninsula. Some dispersed recreational opportunities provided throughout National Forest lands include 108 miles of the North Country National Scenic Trail; 41 miles of cross-country ski trails; more than 350 miles of hiking and mountain bike trails; more than 450 miles of snowmobile/all-terrain vehicle

trails; more than 70 miles of canoe trails; and more than 500 lakes and nearly 2,000 river miles for fishing. In addition, the Forest Service operates and maintains 106 developed recreation sites on its lands (FERC, 2002).

UPPCO owns 1,182 upland acres within the Bond Falls development boundary and 408 upland acres within the Victoria development boundary. The licensee owns all of the land within the Victoria development boundary; however, the Forest Service owns approximately 54 upland acres within the Bond Falls development boundary.

Canoeing is very popular on the Ontonagon River. As described above in section VI.C.6, *Aesthetic Resources*, the Forest Service also manages certain segments of the Ontonagon River that are designated Federal WSRs. The following reaches of the Ontonagon River located near the subject reservoirs are designated within the WSR system (see table 5): the Middle Branch from its origin to the northern boundary of the Ottawa National Forest; and the West Branch from its confluence with Cascade Falls to Victoria reservoir (NWSRS, 2008).

UPPCO's approved recreation plan for the Bond Falls development includes, among other things, 5 dispersed campsites on islands, 2 designated campgrounds, 2 picnic areas, 3 unimproved and 1 improved boat access sites on the reservoir, and a canoe take-out area near the main dam with directional signage to Agate Falls. Recreational activities at the Victoria development consist primarily of sport fishing and boating. The licensee provides an unimproved public boat launch site next to the dam, a canoe portage from the reservoir to the end of the tailrace, and a parking lot for about 40 vehicles. There are two informal tailwater fishing sites on the north side of the powerhouse and one near the canoe put-in location.

FERC's Licensed Hydropower Development Recreation Report (Form 80 report)<sup>13</sup> includes recreational data for all recreational activity occurring within the project boundary, collectively accounting for UPPCO facilities and those facilities provided by other recreation providers. Based on the latest Form 80 report, the Bond Falls development had a total of about 19,234 visitors during the 2002 calendar year. Table 6 summarizes important findings of the Form 80 report.

Table 6. Summary of the Form 80 report for the Bond Falls development in 2002.

Type of Recreation Resource	Number	Total Acres	Level of Use <sup>a</sup>
Access Areas	8		Low

<sup>13</sup>To evaluate recreational resources at the project, the Commission requires the licensee to prepare and submit a FERC Form 80 (see 18 CFR 8.11). Project owners must submit a Form 80 report every 6 years. Each Form 80 must describe a project's recreation facilities and the level of public use of these facilities.

<b>Type of Recreation Resource</b>	<b>Number</b>	<b>Total Acres</b>	<b>Level of Use<sup>a</sup></b>
Boat Ramps	7		Low
Boat Launching Lanes	7		Low
Tailwater Fishing Facilities	1		Low
Fishing Pier	1		Low
Parks	1	2	High
Playground Area	1	0.5	High
Swimming Area	1	2	High
Picnic Area	1	2	High
Hunting Area	1	5	Low
Winter Sports	1		Low

<sup>a</sup> Annual average percentage of actual use of a facility compared to full capacity. Low use is equal to or less than 40 percent of full capacity, medium use is between 40 and 60 percent of full capacity, and high use is 60 percent or more of its full capacity.

Based on the latest Form 80 report, the Victoria development had about 275 visitors in the 2002 calendar year. Table 7 summarizes important findings of the report.

Table 7. Summary of the Form 80 report for the Victoria development in 2002.

<b>Type of Recreation Resource</b>	<b>Number</b>	<b>Total Acres</b>	<b>Level of Use</b>
Access Areas	2		Low
Boat Ramps	1		Low
Boat Launching Lanes	1		Low
Canoe Portage	1		Low
Tailwater Fishing Facility	1		Low
Hunting Area	1	408	Low
Winter Sports	1		Low

The Bond Falls development comprises approximately 1,182 acres of upland acreage owned by the licensee and approximately 54 acres of upland acreage owned by the Forest Service. The Victoria development comprises of 408 upland acres owned by the licensee. UPPCO's approved buffer zone management plan is basically a forest management plan that includes a variety of management techniques for project lands including vegetation, timber stand improvement, even-age tree management, insect and disease control, fire control, threatened and endangered species protection, wildlife



management, wetland management, and recreation management. The licensee provides the required variable width buffer zone with an average width of 200 feet on lands that it owns adjacent to the project impoundments. The buffer zone management plan was developed to be consistent with other project management plans such as the threatened and endangered species protection and enhancement plan and the wildlife and land management plan.

Pursuant to the standard land use article (Article 422), the licensee has the continuing responsibility to supervise and control the non-project uses and occupancies for which it grants permission pursuant to Article 422, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. Any proposed uses and occupancies that are outside the scope of Article 422 require prior Commission review and approval.

b. Environmental Impacts and Recommendations.

The proposed SMP, via its classification system, allows for both public and private recreational development along the shoreline. Private recreational development would include facilities such as docks that serve residential communities adjoining the reservoir. Public recreational development would include improvements to existing access areas, development of a historical interpretive sign, a public trail system, and production of recreation brochures and a bathymetric map.

The percentage of proposed shoreline classifications in the project area is shown in section IV.1 in table 1 and figure 3 and contains full descriptions of each type of classification. The Resource Agencies commented the shoreline classifications are confusing. The classification system identifies four categories along the project shoreline (see figure 3 in section IV.1) available for different levels of development depending on the natural resources present. Areas with higher natural resource values such as areas containing sensitive species or habitats would allow minimal development. Areas that would be considered for more intensive development would be areas where the licensee would be required to maintain roads to county standards or project operation areas that could include the construction of recreational areas/facilities, roads, pedestrian paths, and motorized vehicle trails (snowmobiles) as well as the placement of dock structures. Other than snowmobile use in the winter, the use or parking of motorized vehicles would be prohibited except at designated recreation areas, existing roads, project operations areas, as necessary for the launching and removal of boats or the drop-off and pick up of boating supplies, or as needed for access by people with disabilities.

About 15.6 percent of the project shoreline for Bond Falls development and 5.7 percent of the project shoreline for Victoria development would be classified as General Use/Formal Recreation. Implementation of the proposed SMP, including planned dock development, and recreational enhancements would result in additional public access and use of the project shoreline. The Resource Agencies commented that, without defining a desired character for the project reservoir, any assumptions made or conclusions reached regarding watercraft capacity, type of watercraft, or other appropriate recreation are premature and without context. The licensee conducted a literature review/desktop analysis of boating carrying capacity and concluded reservoir configuration, width of buffer zone, types of watercraft and their associated activities, and the expectations related to the water body all factor into the determination of a boating carrying capacity for a particular water body. For the Bond Falls impoundment, a boating carrying capacity range of as few as 61 (200-foot buffer, combined use) to as many as 459 watercraft (100-foot buffer with only non-motorized watercraft) may be appropriate based on the assumptions made in its determination.

With the sale of adjacent non-project lands, boating use of Bond Falls and Victoria reservoir is expected to increase. Although the licensee states there is the potential for up to 320 private boat slips at the Bond Falls development, the schedule for development may be spread over many years. It is unlikely that all private boat slip owners would be on the water simultaneously at any given time, and the many islands, points, and coves of the reservoir would tend to disperse users.

### **Amendment to Recreation Plan**

The licensee has requested to amend its approved recreation plan to clarify those recreation enhancements, policies, and development guidelines specified in the SMP and to include the recreational enhancements specified in the SMP. Common Coast Research and Conservation and the Resource Agencies state there are inconsistencies with approved plans. The licensee's request to amend the recreation plan would ensure consistency with the SMP. We do not agree with UPPCO's request to amend its approved recreation plan at this time due to the fact that the design and construction details of the proposed recreational enhancements have not been identified. Once site-specific plans have been identified an amendment of the approved recreation plan would be more comprehensive and could be prepared in a more consistent manner with other resource plans.

We recommend the licensee develop, in consultation with the appropriate agencies, an amendment request that would include, at a minimum, provisions for all twenty-nine recreational enhancements listed in the SMP for the Bond Falls development and all four recreational enhancements listed for the Victoria Falls development. We recommend the amendment request be filed for Commission approval and include descriptions and design drawings showing the specific locations for the construction-related recreation measures, a cost estimate for each facility, a description of the type and

contents of the map and brochure, identification of the entity responsible for the construction, operation and maintenance of the facilities, and an implementation schedule.

### **Amendment to the Buffer Zone Management Plan**

The licensee proposes to amend the buffer zone management plan to provide consistency with the proposed SMP. The licensee proposes to change the wording in the buffer zone management plan to stipulate that, UPPCO proposes to replace figures BZ-2 and BZ-3 of the approved buffer zone plan with the revised figures (see SMP figures BZ-2 revised and BZ-3 revised) that illustrate the entirety of lands that would be subject to the buffer zone plan. UPPCO is also proposing to amend the buffer zone plan to clarify that the uses and prohibitions specified in this SMP are consistent with the objectives of the buffer zone management plan.

The Resource Agencies state that at the time the buffer zone management plan was written and approved, the major threats addressed in the plans involved forestry operations and associated use of roads for logging activities on project lands. The Resource Agencies further state that since the new threats or activities proposed in the SMP were not addressed in the original license plans, many of the license plans are outdated and must be rewritten.

A review of the project license indicates the buffer zone management plan was intended to be a comprehensive document dealing with multiple resources and pressures on those resources. In fact, non-project use of project lands was not mentioned, and the main focus of the buffer zone management plan was on timber harvesting practices. The proposed SMP focuses on non-project use of project lands, public recreation enhancements, and maintenance of project facilities. We do not agree with UPPCO's request to amend its approved buffer zone management plan at this time due to the fact that the details of the proposed recreational enhancements have not been identified. Once site-specific plans have been identified an amendment of the approved buffer zone management plan would be more comprehensive and could be prepared in a more cooperative manner with other resource plans.

We recommend the licensee develop, in consultation with the appropriate agencies, an amendment request for the buffer zone management plan after the specific site locations for all the recreational enhancements have been determined. We recommend the amendment request should ensure that the buffer zone management plan is consistent with the proposed SMP, recreation plan, and other resource plans and be filed for Commission approval.

### **Use of Project Lands**

Article 422 of the project license contains the standard land use article that allows the licensee to establish a program for issuing permits and granting conveyances of

project property for specified types of use and occupancy of project lands and waters, without prior Commission approval. Such uses may include, but are not limited to, the installation of private boat docks, pedestrian pathways, and wooden walkways and stairs. The licensee may only grant permission for such uses and occupancies provided the use or occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project.

The SMP, in and of itself, does not supersede or change the land use article. Implementation of the SMP can help the licensee carry out the intent of the standard land use article and other license requirements in the following ways: (1) the SMP would help the licensee, the Commission, and the stakeholders to view individual shoreline development proposals in a project-wide or even regional perspective, rather than as individual, isolated actions; (2) the SMP would help track trends of developmental activities; and (3) the SMP would allow for consistent review and approval of the various developmental proposals.

It is important to note that non-commercial dock facilities allowed pursuant to Article 422(b) are limited to a total capacity of 10 watercraft (i.e., 10 slips) and are to serve single-family type dwellings only. In this regard, the licensee may permit an owner of a single-family type dwelling along the reservoir shoreline to have a single boat dock or similar facility that can accommodate no more than 10 watercraft without prior Commission approval. Similarly, the licensee may permit the owner of a planned, single-family type, residential subdivision along the shoreline to have a single, boat dock or similar facility that can accommodate no more than 10 watercraft, pursuant to Article 422(b). Any dock proposals that are beyond the scope of Article 422(b) (e.g., accommodates more than 10 watercraft at a time) would require prior Commission review and approval.

The Resource Agencies, Common Coast Research and Conservation, Resource Agencies, the Northwoods Wilderness Recovery, executive director Douglas R. Cornett, Tom Wolfe, UPPAC, Tom Church, UPEC, FOLK, Northwood Alliance, Inc., Doug Welker, Nancy Warren, Merrill Horswill, Robert and Sarah Wagner, Barbara and Rick Querzi, Nicole Pollack and other commenters state in comments filed with the Commission that certain uses of project lands are inconsistent with the intent of the original license, and further environmental analysis is needed. Tom Church, and to some extent Nancy Warren and Merrill Horswill, further state the proposed exclusive use by the owners of the non-project lands was intended to increase UPPCO and real estate developers' profit at the expense of natural resources and the other interested parties.

Article 422 of the project license contains the standard land use article that allows licensees to establish a program for issuing permits for specified types of non-project use and occupancy of project lands and waters. Licensees may charge a reasonable fee to cover the costs of administering the permit program. Such specific types of uses may include, but are not limited to, the installation of small private boat docks, pedestrian

pathways, wooden walkways and stairs. These uses are not outside the intent of the original license. This EA fully considers the environmental impacts of the proposed SMP.

Regarding the effect of implementing the SMP on other land uses, the classification system identifies areas where a full spectrum of uses can and cannot occur, based on the suitability of the area for the allowable use. This system results in a balance of reduced environmental impacts and orderly development that reduces conflicting shoreline uses. Further, because shoreline development applications outside the scope of Article 422 are subject to review, and approval, the Commission, UPPCO, and the consulted agencies are able to take account of the type, quantity, and quality of associated facilities and activities being proposed.

It should also be noted that, while shoreline areas are classified for a certain use, an area may never be developed to its full potential. One common example of why a shoreline area may not be developed as classified is economic and market constraints (e.g., supply and demand). Another common reason is that adjoining local zoning restrictions may preclude a certain use in a given area. The SMP classifications do not extend beyond the project boundary.

The SMP's shoreline management guidelines contain design criteria for developing facilities and conducting ground-disturbing activities associated with various land uses, including restrictions on the size and location of facilities, design standards, and construction methods to minimize impacts on project resources and values in the surrounding area. As stated earlier in this EA in section VI.C.4, *Terrestrial Resources*, without a site visit prior to and after vegetation removal; it would be difficult to determine whether violations to permitting terms and conditions occurred. We recommend the licensee, as part of its permitting program, visit a permitted site prior to vegetation removal to flag the area to ensure compliance with the terms and conditions of its permit.

### **Update of Shoreline Management Plan**

In the event that the shoreline, over time, is developed to the full extent as allowed by the SMP and its classifications, recreational opportunities at the project would notably increase, particularly water-based recreational activities. Some displacement of certain types of recreational uses may occur where one use conflicts with another, such as canoeing and kayaking versus motor boating. Short-term effects of construction activity would occur such as water access restrictions due to traffic, temporary road closures, and parking restrictions and availability. Long-term effects would be both positive and negative. The types of recreational uses would become more diverse; the character of the shoreline would change to a more residential, developed environment; and the reservoir and surrounding area may become less attractive to recreationists who prefer more serene, natural recreation activities.

SMPs are evolving documents that need to be flexible. The SMP should be monitored and reviewed on a regular basis to determine how effective it is in accomplishing the licensee's goals, and to respond to new or evolving situations or conditions. The licensee has stated that, at a minimum, consultation with the agencies would occur annually to discuss the progress of the implementation of the SMP. However, the licensee does not provide for updates of the SMP. We recommend the licensee update and refile the plan every 5 years, for Commission approval, after consultation with the appropriate agencies, beginning 5 years from the issuance of any order approving the SMP. The filing also should include documentation of the licensee's consultation with the agencies on the updated plans, including responses to any agency comments and recommendations.

## **9. Socioeconomics**

### **a. Affected Environment.**

The socioeconomic environment for the Bond Falls Project includes the adjacent townships of Haight, Interior, Rockland, and Stannard and surrounding Ontonagon County, Michigan. Compared to the state of Michigan as a whole, these areas are considerably more rural, the residents are older, median incomes are lower, and average home values are lower (UPPCO, 2007). Citing U.S. Bureau of the Census data, UPPCO reports that, between 1970 and 2005, the Ontonagon County population decreased by 30 percent, reaching 7,363 in 2005, while the population of Michigan as a whole increased by 14 percent. During the same 35-year period, the population of all four townships also fell, with the populations of Haight, Interior, Rockland, and Stannard townships reaching 214, 346, 351, and 774 persons, respectively.

The population of Houghton County has fallen each decade since 1970. The populations of the townships have risen in some decades, but the overall pattern has been one of falling populations. Between 2000 and 2005, only Rockland Township experienced a population increase, from 300 to 351 persons. While just one-quarter of the Michigan population is classified as living in rural areas, 100 percent of the residents of Ontonagon County and the four townships are classified as living in rural areas, including both rural farm and rural non-farm residents.

According to the 2000 U.S. Census, Ontonagon County had 5,404 housing units. While Michigan as a whole had a vacancy rate of 11 percent, vacancy rates were higher in Ontonagon County (36 percent) and the townships of Haight (60 percent), Interior (41 percent), Rockland (39 percent), and Stannard (32 percent). In all cases, the large percentage of homes in seasonal, recreational, or occasional use account for much of the high vacancy rates, because housing units are counted as vacant when a housing unit is not occupied at the time of the census (UPPCO, 2007).

Ontonagon County lags behind Michigan and the United States in measures of income. In 1999, residents of Ontonagon County earned just two-thirds of the median household income and 75 percent of the per capita income for Michigan residents as a whole. Poverty levels for the county (10 percent) and townships (9 to 15 percent) are similar to those experienced by the state (11 percent) and United States (12 percent), with only Stannard Township (15 percent) exceeding the state and national levels (UPPCO, 2007).

Ontonagon County had a labor force of 3,595 in October 2006. Unemployment in the county at that time was 5.7 percent, which was higher than the U.S. average of 4.1 percent but lower than the statewide average of 6.1 percent at the same time. Annual 2005 unemployment in Ontonagon County was 7.0 percent, higher than both the national average (5.1 percent) and statewide average (6.7 percent) (UPPCO, 2007).

As might be expected for a rural area with an abundance of public land and outdoor recreational opportunities, the employment mix is different from the state as a whole. In 2000, a higher percentage of people in Ontonagon County were employed in agriculture, forestry, fishing and hunting, as well as arts, entertainment, recreation, accommodation, and food services; compared to the state as a whole: At the same time, a lower percentage of people were employed in industries such as manufacturing; wholesale trade; and professional, scientific, management, administrative, and waste management services (UPPCO, 2007).

In its comments filed with the Commission, SaveOurSchools/SaveOurShorelines (SOS) states that the economies of Upper Peninsula communities are struggling because mining and logging jobs have been declining and because the abundance of government-owned land limits the amount of private land available for development. Others commented that the lack of economic development options has led to an outflow of the area's younger residents, who leave for areas with more employment opportunities.

#### b. Environmental Impacts and Recommendations.

In its SMP, UPPCO states that allowing people listed on property deeds immediately adjacent to UPPCO-owned land within the project boundary of the Bond Falls Project to construct pedestrian paths and install seasonal docks on project lands would have a beneficial effect on local socioeconomic conditions. UPPCO states that the presence of boat docks and the proposed recreational enhancements could increase the real estate value of the houses within the area, new residents would contribute to an expansion of the local economy and tax base, and additional income could be generated for businesses that cater to these homeowners.

Many commenters made similar points. In their comments filed with the Commission, SOS and the Upper Peninsula Construction Council wrote that the proposed SMP would have a positive effect on the local economy because it would allow private

docks and other amenities that would enhance the area's attractiveness to new homeowners and raise the value of homes abutting the project boundary, which in turn would bring new jobs and revenue to the area. In their comments, these SMP supporters wrote that such development would increase the tax base, which would benefit the school districts as well as the township and county government units that provide needed services such as transportation, fire and ambulance protection, road maintenance, and senior citizen programs. The Western Upper Peninsula Planning and Development Regional Commission, State Representative Tom Casperson, and many private individuals made some of the same points.

Many other commenters expect a different economic outcome, indicating that the additional tax revenue associated with higher land and home values would not be enough to offset the increased cost of developing and maintaining the infrastructure needed to support such development in a rural area. In its comments, UPEC states that so much of the private shoreline property in the Upper Peninsula has already been developed that the long-term economies of local communities would be best served by leaving the UPPCO project basins (including the Bond Falls Project) in the natural condition that first attracted visitors and residents to the area. In their comments, the Resource Agencies state that the SMP does not fully disclose the economic effects of implementing the proposed SMP and connected actions, including the costs of development and road construction. Stannard Township comments that implementing the proposed SMP would bring about a gradual demise of a valuable recreational resource while providing only short-term economic development.

The amenities associated with UPPCO's proposed SMP (paths and docks) would no doubt increase the appeal of those properties to buyers, which in turn would likely lead to the increased construction activity, jobs, and tax revenues anticipated by UPPCO, SOS, and others. However, no project-specific economic analysis has been prepared to conclusively demonstrate whether the increased tax revenue would more than offset the additional costs to the communities for providing services to those properties and residents. That would depend in large measure on the nature of the development, the types of residents that are attracted, the level of services provided by local governments, and of course the tax structure.

#### **D. No-action Alternative**

Under the no-action alternative, there would be no SMP to provide shoreline classifications or an integrated, comprehensive approach to management of the Bond Falls Project reservoir shorelines. Without the SMP, UPPCO would continue to manage the shoreline through its existing license conditions and Commission-approved plans filed pursuant to license requirements. In addition, any future shoreline development proposals would be subject to applicable Federal, state, and local agency approvals, permits, and regulations.



Under the no-action alternative, UPPCO's management of the river shoreline would not receive the benefits of the proposed SMP, including its shoreline classifications. Thus future shoreline development at the project would occur in a less orderly manner and without full consideration of the effects of such development on the reservoir's environmental resources from a comprehensive perspective. As such, the no-action alternative would likely have greater overall adverse impacts on the environmental resources of the reservoir shoreline.

## **VII. CONCLUSION AND RECOMMENDATIONS**

Water-based recreational activity and waterfront and water access properties are growing in demand and value throughout the Bond Falls Project area. Local counties and municipalities also benefit economically from the existence of the reservoir. These factors, along with input of local, state, and Federal agencies, private and non-governmental entities, and the general public, have shaped the proposed SMP. As previously noted, this document analyzes the effects of implementing the proposed SMP (proposed action) and the no-action alternative on the affected environment during the remainder of the license term. The current project license is due to expire in 2043.

As future shoreline development occurs, commensurate with increases in residential development adjacent to the project area, it is anticipated that there would be an increased demand for boat dock facilities. Implementation of the proposed SMP would allow such facilities pursuant to the various provisions of the plan. While such development would have some impacts on the Bond Falls and Victoria reservoir's shoreline and reservoir resources, the proposed SMP would ensure an orderly and appropriate level of development and protection of project purposes and resources.

Future shoreline development would result in some sedimentation and erosion along the shoreline; temporary impacts on water quality; some losses in habitat for fish; and changes in the aesthetics character of the lake from a rural, wilderness nature to a more developed landscape, consisting of some residential boating facilities that serve adjoining single- and multi-family dwellings. While these impacts are expected to occur during the license term, the proposed SMP has specific requirements, measures, and programs to minimize such impacts, as noted throughout this document. In addition, the environmental effects of any specific development proposals filed with the Commission in the future would be evaluated in the context of the requirements of the proposed SMP and, if appropriate, additional measures to minimize or mitigate for site-specific impacts would be required. Any such measures would further protect the reservoir's resources.

In addition, there is a possibility of disturbing cultural resources at the locations of future ground-disturbing activities along the reservoir shoreline. The HRMP contains specific provisions to avoid and minimize potential impacts on historic properties.

Implementation of the HRMP in conjunction with the proposed SMP would provide for adequate protection of historic properties.

While the SMP is generally adequate and accomplishes most of the stated objectives and purposes, it does not fully address specific issues and concerns as noted in the above analysis. As such, Commission staff makes the following recommendations to address these outstanding issues and concerns. As proposed, the SMP has the potential to affect wetland resources. Wetlands are present in areas zoned for potential clearing of vegetation for future trails, paths, and docks. UPPCO states that it will work to minimize effects on wetlands wherever possible, but that in some cases the construction of trails, paths, or docks could affect small areas of wetlands. Resource Agencies commented that wetlands are important to overall ecological health and as such they do not support any non-project uses in these areas.

- We recommend that UPPCO prohibit the removal of any trees or shrubs in wetlands, and stipulate that the Michigan Department of Environmental Quality would be consulted to evaluate any unavoidable effects on wetlands as required under section 404 of the Clean Water Act.

Disturbance associated with the removal of vegetation would create microsites where the introduction of terrestrial noxious weeds, such as orange hawkweed, could establish. Resource Agencies requested that UPPCO rewrite the approved noxious plant control plan to address effects from terrestrial disturbance and increased human use. UPPCO has agreed to implement an education program and to monitor and control additional noxious species not included in the current plan, as long as the species are identified by the Resource Agencies and the agencies can provide proven control measures. The existing noxious plant control plan is targeted at purple loosestrife and Eurasian water milfoil, both aquatic species, and the majority of the effects of the proposed SMP on vegetation would be in terrestrial areas.

- We recommend UPPCO work with Resource Agencies to develop an appropriate monitoring and control plan targeted at terrestrial noxious species and areas where vegetation removal and ground disturbance would be permitted by the SMP.

The proposed SMP's effects on wildlife would depend on the quantity of overall reductions in vegetation permitted by UPPCO and increases in human disturbance. To minimize potential effects on wildlife, UPPCO's proposed SMP would place limits on the types and quantities of vegetation that landowners could remove; thereby limiting effects on wildlife habitat. The SMP specifies that all other areas be managed for old growth forest and prohibits any non-project activities in these areas. The Resource Agencies state that vegetation removal and increases in human presence may result in disturbance to local wildlife and compromise the use of some nesting structures planned

in compliance with the license. Increased human activity and vegetation removal surrounding nesting structures would reduce the value of the structures.

- We recommend that UPPCO consult with Resource Agencies to relocate the planned osprey nesting platform located near the proposed dock storage area.

The proposed SMP includes provisions for minimizing effects on the bald eagle. These provisions include prohibiting the cutting of most trees suitable for bald eagle use, public education, and continued implementation of the approved bald eagle management plan. Resource Agencies commented that increases in human presence associated increased development and recreation activities could disturb eagles.

- We recommend that UPPCO extend limitations on tree trimming to include all super canopy trees. This would prevent the loss of suitable bald eagle habitat.

The proposed SMP identifies potential habitat for common loon and incorporates most of these areas within the Conservation – Limited Public Trail Area. To mitigate effects on the common loon, UPPCO has plans to construct two loon nesting platforms that have been located with consultation with Resource Agencies. Resource Agencies commented that the proposed SMP does not go far enough to protect loon habitat. They add that the survey conducted as part of the environmental report was of insufficient duration to adequately determine loon activity in the project. The agencies also note that the approximate 50-foot wide Conservation – Limited Public Trail buffer between loon habitat and Conservation – Limited Public Path Area would be insufficient to protect this species from disturbance. The agencies recommend that UPPCO produce a loon management plan for the Au Train impoundment. We agree with the Resource Agencies that common loon habitat is present at Bond Falls impoundment and that potential effects on the common loon resulting from activities associated with the SMP warrant the development of a loon management plan that would monitor loon reproductive success and evaluate the benefit of additional nesting structures.

- We recommend that UPPCO continue to monitor the loon population at Bond Falls and coordinate with Resource Agencies to develop and implement a plan to promote nesting success. We recommend that this plan include provisions that all identified loon habitat be surrounded by a 175-foot buffer where no trails or paths are permitted. We also recommend that signs be placed around loon nesting areas to request boaters restrict their activities within 450 feet of these areas during the breeding season. Additionally, restrictions within the 450-foot protection buffer also should apply to recreational activities associated with lands classified as General Use/Formal Recreation. These provisions would minimize disturbance to the common loon while still permitting landowners with lots near identified loon habitat access to less sensitive shore areas.

The proposed SMP's effects on wood turtles would be dependent on the degree increased human activity affects turtle nesting areas. Several cluster docks, public paths, and the public trail are all proposed within identified wood turtle habitat. UPPCO has not proposed any measures to reduce or mitigate effects to wood turtles. The effect of increased recreation pressure at the impoundment on these nesting areas is unknown and should be monitored.

- We recommend that UPPCO initiate an education program and monitor activities near potential wood turtle nesting habitat to determine the degree to which increased activities affect these areas. If adverse effects are identified, we recommend that UPPCO coordinate with Resource Agencies to develop and implement a mitigation plan that would adequately minimize these effects.

The Resource Agencies commented the SMP lacks a formal framework for monitoring, enforcement, and updating to incorporate new information and changed conditions. The Resource Agencies commented that, at a minimum, UPPCO should regularly monitor key parameters such as amount of undisturbed shoreline and changes in wildlife use of project lands and waters. The Resource Agencies further comment that monitoring and enforcement plans should be developed concurrently with the SMP with input from the Resource Agencies.

UPPCO stated in its proposed plan it is committed to providing the resources needed to conduct regular inspections and manage the Bond Falls Project in accordance with the terms of the SMP, its license, and applicable FERC rules and regulations. UPPCO states it is responsible for ensuring that the uses and occupancies for which it grants permission are safe, maintained in good repair, and comply with applicable safety and health requirements. This responsibility includes public recreation access and protecting important natural, environmental, and scenic resources. In addition, Article 422 of the project license, the standard land use article, states that the licensee:

“shall have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation.”

The SMP's shoreline management guidelines contain design criteria for developing facilities and conducting ground-disturbing activities associated with various land uses, including restrictions on the size and location of facilities, design standards, and construction methods to minimize impacts on project resources and values in the

surrounding area. However, without a site visit prior to vegetation removal; it would be difficult to determine whether violations to permitting terms and conditions occurred.

- We recommend the licensee, as part of its permitting program, visit a permitted site prior to and after vegetation removal to flag the area to ensure compliance with the terms and conditions of its permit.

The licensee has stated that, at a minimum, consultation with the agencies would occur annually to discuss the progress of the implementation of the SMP. However, the licensee does not provide for updates of the SMP.

- We recommend the licensee update and refile the plan every 5 years, for Commission approval, after consultation with the appropriate agencies, beginning 5 years from the issuance of any order approving an SMP. The filing should also include documentation of the licensee's consultation with the agencies on the updated plans, including responses to any agency comments and recommendations.

The SMP's shoreline classifications, as described in section IV.1 of this EA, were developed with extensive input by the interested Federal and state Resource Agencies and others with the intention of protecting the environmental resource values of the project's shoreline. These classifications have also been publicly noticed for the purpose of obtaining further public consideration. Therefore, any proposed changes to these classifications or proposals to alter shoreline uses that are not consistent with the SMP should be filed for Commission approval in advance of any inconsistent activities. The licensee should prepare such proposals in consultation with appropriate agencies.

Common Coast Research and Conservation and the Resource Agencies state there are inconsistencies with approved plans. It is important that all approved plans be consistent with one another and implemented in a cooperative manner; however, Commission staff has not been provided with enough details to include the specific placement of the recreation enhancements.

- We recommend the licensee develop an amendment request after consultation with the appropriate agencies, to amend the project's recreation plan that would include, at a minimum, provisions for all recreational enhancements listed in the SMP. We recommend the amendment request be filed for Commission approval and include design drawings for all of the construction-related recreation measures, a cost estimate for each facility, a description of the type and contents of the map and brochure, identification of the entity responsible for the operation and maintenance of the facilities, and an implementation schedule.

The Resource Agencies state that at the time approved wildlife and land management and buffer zone management plans were written and approved, the major threats addressed in the plans involved forestry operations and associated use of roads for logging activities on project lands. The Resource Agencies further state that, because the new threats or activities proposed in the SMP were not addressed in the original license plans, many of the license plans are outdated and must be rewritten.

A review of the project license indicates the buffer zone management plan was intended to be a comprehensive document dealing with multiple resources and pressures on those resources. In fact, non-project use of project lands was not mentioned and the main focus of the buffer zone plan was on timber harvesting practices. The proposed SMP focuses on non-project use of project lands, public recreation enhancements, and maintenance of project facilities. We do not agree with UPPCO's request to amend its approved buffer zone plan at this time due to the fact that the locations of some of the proposed recreational enhancements have not been identified. Once site-specific plans are identified, an amendment of the approved buffer zone plan would be more comprehensive and could be prepared in a more cooperative manner along with other resource plans.

- We recommend the licensee develop, in consultation with the appropriate agencies, an amendment request for the buffer zone management plan after the specific site locations for all the recreational enhancements have been determined. We recommend the amendment request be filed for Commission approval.

## **VIII. FINDING OF NO SIGNIFICANT IMPACT**

Based on information, analysis, and evaluations contained in this EA, we find that implementation of the proposed SMP, with our recommended measures, would not constitute a major Federal action significantly affecting the quality of the human environment.

## **IX. LITERATURE CITED**

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