



**Upper Peninsula Power Company**  
(a subsidiary of Integrys Energy Group)  
700 North Adams Street  
P.O. Box 19001  
Green Bay, WI 54307-9001

May 28, 2014

FERC No. 10855

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

Dear Secretary Bose:

UPPCO Dead River Hydroelectric Project  
Order Approving Five-Year Update to the Land Use Plan

As per the Federal Energy Regulatory Commission (FERC) Order Approving the Updated Dead River Hydroelectric Project Land Use Plan dated May 26, 2010, Upper Peninsula Power Company (UPPCO) is required to update the Land Use Plan every five years in consultation with the Michigan Department of Natural Resources (MDNR).

UPPCO conducted a review of the FERC approved Land Use Plan and believes the practices outlined in the existing plan satisfy the requirements to protect and enhance the environmental values of the project lands. UPPCO does not propose any changes to the currently approved Dead River Hydroelectric Project Land Use Plan.

On April 18, 2014, the proposed UPPCO Dead River Hydroelectric Project Land Use Plan was provided to the Michigan Department of Natural Resources (MDNR) for review and comment. The MDNR did not provide any comments on the proposed updated Land Use Plan. Documentation of Consultation is included in Appendix A. The proposed Dead River Land Use Plan is included in Appendix B.

If you have any questions or concerns, please contact Jamie Nuthals at (920) 433-1460.

Sincerely,

Gil Snyder  
Manager – Regional Generation  
for Wisconsin Public Service

jdn/rjf

Enc:

cc:	Mr. John Myers, IBS - D2	Mr. Robert Meyers, UPPCO - UISC
	Mr. Shawn Puzen, IBS - D2	Mr. Keith Moyle, UPPCO - UISC
	Mr. Ben Trotter, IBS - D2	Mr. Virgil Schlorke, UPPCO - UISC
	Ms. Joan Johaneck, WPS - D2	Mr. John Zygaj, FERC - CRO
	Mr. James Melchiori, UPPCO - UVD	

## **APPENDIX A**

### **PROPOSED DEAD RIVER LAND USE PLAN**

# UPPER PENINSULA POWER COMPANY

## DEAD RIVER HYDROELECTRIC PROJECT

(FERC PROJECT NO. 10855)

### **LAND USE PLAN**

## TABLE OF CONTENTS

<b>1.0</b>	<b>OBJECTIVE .....</b>	<b>1</b>
<b>2.0</b>	<b>DESCRIPTION OF PROPERTIES .....</b>	<b>2</b>
2.1	General Description .....	2
2.2	Detailed Description .....	2
2.2.1	Geology, Topography, and Soil .....	2
<b>3.0</b>	<b>LAND USE PLAN .....</b>	<b>3</b>
3.1	Current Management Practices.....	3
3.2	Management Categories.....	3
3.2.1	Recreational Open Space .....	3
3.2.2	Project Facility Area .....	4
<b>4.0</b>	<b>FUTURE MANAGEMENT PRACTICES .....</b>	<b>4</b>
4.1	Aesthetic Management.....	4
4.2	Wetland Management.....	4
4.3	Waterfowl Management .....	5
4.4	Wildlife Management .....	5
4.5	Timber Stand Improvement.....	6
4.6	Insects and Disease Control .....	6
4.7	Fire Control .....	7
4.8	Threatened and Endangered Species .....	7
<b>5.0</b>	<b>IMPLEMENTATION.....</b>	<b>7</b>
<b>6.0</b>	<b>CONSULTATION EFFORTS .....</b>	<b>7</b>

### List of Figures

Figures 1-2	Silver Lake Storage Basin Land Use Zones
Figure 3	Dead River Storage Basin Land Use Zones
Figure 4	McClure Storage Basin Land Use Zones
Figure 5	McClure Powerhouse Land Use Zones

**Article 415** Within one year of license issuance, the licensee shall file, for Commission approval, a comprehensive land management plan for the protection of environmental resources on licensee-owned lands within the Dead River Project boundary.

The plan shall, at a minimum, include:

- (1) maps delineating licensee-owned lands showing management zones;
- (2) methods for protection or conservation measures within the zones;
- (3) provision for continuing the policy prohibiting commercial logging on licensee-owned land within the project boundary;
- (4) provision for ensuring continued access to project lands and waters; and
- (5) a provision to update the plan every five years.

The licensee shall prepare the comprehensive land management plan after consultation with the Michigan Department of Natural Resources (MDNR). The licensee shall include with the plan documentation of consultation, including copies of MDNR comments and recommendations on the draft plan, and specific descriptions of how MDNR's comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for MDNR to comment and to make recommendations prior to filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon approval, the licensee shall implement the plan, including any changes required by the Commission.

## **Dead River Hydroelectric Project Land Use Plan**

### **1.0 OBJECTIVE**

The purpose of this document is to outline land use concepts, considerations, and techniques to be implemented on UPPCO properties held in fee within the Dead River Hydroelectric Project.

The intent of the land use plan is to maintain properties in a manner that protects environmentally sensitive habitat, provides aesthetic management, and ensures that land use is compatible with wildlife management.

While most of the land within the project boundary is privately owned, Upper Peninsula Power Company (UPPCO) cooperates with government agencies and private groups to improve habitat using public land use concepts where possible.

UPPCO's goal is to work in partnership with nature through proper management of the project lands for optimum enhancement and protection.

This plan includes:

- (1) maps delineating licensee-owned lands showing management zones;
- (2) methods for protection or conservation measures within the zones;
- (3) provision for continuing the policy prohibiting commercial logging on licensee-owned land within the project boundary;
- (4) provision for ensuring continued access to project lands and waters; and
- (5) a provision to update the plan every five years.

Land use techniques described in this plan apply only to UPPCO owned properties.

## **2.0 DESCRIPTION OF PROPERTIES**

### **2.1 General Description**

Upper Peninsula Power Company (UPPCO) purchased the Dead River Hydroelectric Project in February 1988, and began proceedings to license the project with the Federal Energy Regulatory Commission (FERC) in September 1988. It was previously owned by Cliffs Electric Service Company, a subsidiary of Cleveland-Cliffs Iron Company (CCI), the original developer of most of the project facilities.

The project is located on the Dead River in Marquette County in the central region of Michigan's Upper Peninsula. The Dead River flows in a southeasterly direction from its headwaters above Silver Lake Storage Basin to Lake Superior. The lands within the project comprise approximately 6,300 acres, with approximately 4,762 acres of surface water and 11.9 miles of free flowing river and 1,538 acres of upland area. UPPCO owns approximately 80 acres of upland area within the project boundary.

### **2.2 Detailed Description**

#### **2.2.1 Geology, Topography, and Soil.**

The Dead River Hydroelectric Project lies in the Great Lakes Basin, a geologic feature of glacial origin covering much of the Upper Peninsula. Surficial geology in the project area includes large areas of Precambrian, meta-igneous bedrocks (schist and gneiss) and metamorphic bedrocks (slate and chert). Other areas, particularly valley bottoms and wetlands, are dominated by tertiary glacial/alluvial deposits (sands, gravels, and boulders). The topography and soils of the project area have derived from material deposited through continental glaciations. The topography is dominated by large glacial outwash plains and low, rolling hills or ridges with numerous, scattered, wet depressions. The areas soil characteristics are closely associated with these different landforms and bedrock types. Soils are relatively young, very complex, intermingled and have immature drainage patterns.

### **3.0 LAND USE PLAN – UPPCO OWNED PROPERTY**

#### **3.1 Current Management Practices**

UPPCO's land use practices are designed to protect and enhance the existing environmental values of UPPCO owned lands. It is UPPCO's practice that within 200 feet of any waterway, forest management will occur for safety, aesthetic, and operational purposes only. Restricting commercial logging near project waters decreases potential erosion and sedimentation concerns, increases opportunities for individual trees and forests to mature, and preserves the aesthetic character of project shorelines and waters. Very little land within the project is owned by UPPCO. UPPCO holds a number of leases and flowage rights for the purpose of project operation, including the right to inundate lands, but not including the right to use or manage the forests on project lands. Therefore, UPPCO has no ability to manage forest habitats on most project lands.

#### **3.2 Management Zones**

The objective of management zones is to identify areas that have different functions within the project, so that each category may be managed differently to best meet each zone objective. UPPCO has two separate management zones for UPPCO land within the project: Recreational Open-Space and Project Facility Areas. Figures 1 through 5 show the management zones for UPPCO owned lands within the project.

##### **3.2.1 Recreational Open-Space**

UPPCO property within the project boundary that is not directly associated with hydroelectric operations will be managed as recreational open-space. Recreational open-space includes both wetlands and upland forest habitat, and is open to the public. Recreational open-space areas provide access to or near the waters edge. Designated public access and parking for motor vehicles is present at project impoundments. Types of recreational activities that are permitted in this management zone include, but are not limited to, hiking, shore fishing, and sightseeing. Proper management practices protect the natural beauty and unique recreational opportunities inherent to the area. Minimal vegetative management, beyond aesthetic, will occur on UPPCO owned land within this area. Timber stand improvement (see section 4.5) is used to thin



overgrown or diseased areas to improve wildlife habitat. Existing and potential future recreational development areas and trails, which consider scenic values, are compatible.

### **3.2.2 Project Facility Areas**

Project facility areas associated with the hydroelectric project developments include dams, powerhouses, dikes, maintenance staging areas, other project structures, and some access roads. For public safety and security, general access to project facility areas is restricted. Based upon the layout of projects and recreational demands, specific public use opportunities that meet safety and security requirements (i.e. canoe portage, bank fishing, parking, etc.) are permitted. Vegetation management will be conducted for the maintenance and protection of project facilities. Due to the high visibility of the areas, aesthetic management principles will be practiced whenever feasible. Wildlife management activities are permitted provided they do not compromise project facility integrity and safety.

## **4.0 FUTURE MANAGEMENT PRACTICES**

The following management practices will be considered and/or incorporated in each of the management zones.

### **4.1 Aesthetic Management**

Aesthetic management is an effort toward greater integrated management of the total forest resource. It emphasizes management toward more visually pleasing landscapes, enhanced visual diversity, creation of landscapes more beneficial to wildlife with more diverse habitats, a variation of environmental types, and a greater richness of border vegetation. Aesthetic management is used when the timber or vegetative resources begin to degrade in any of the above-mentioned factors. Techniques such as reduction of slash visibility and selective timber removal may be used to increase the aesthetic value of a forest. Vegetative management may be appropriate in some instances. Areas that utilize aesthetic techniques are areas of high public use adjacent to the project facilities, reservoirs, rivers, and highways.

### **4.2 Wetland Management**

UPPCO will preserve, protect, and manage all wetlands under company ownership in a manner that recognizes their natural values and importance to the environment. An inventory of

wetlands found on project lands was completed and is included in the hydroelectric project license application. Wetlands will be managed to maximize their natural productive attributes with a primary emphasis on water conservation, wildlife, recreation, and scenic or scientific values. To this end, UPPCO shall:

- Recognize the obvious and subtle natural values when conducting management or operational activities, and take all reasonable steps to minimize harmful effects.
- Maintain control of vital wetlands under company ownership when to relinquish such control would risk degradation of wetland values.
- Continue hydroelectric project operations that minimize adverse impacts to the quality or quantity of waters that maintain wetlands.
- Consult with the Michigan Department of Natural Resources when project operations will impact wetlands.

#### **4.3 Waterfowl Management**

UPPCO waterfowl management activities center upon the reservoir. The water levels maintained by the hydroelectric project have created acres of wetlands for waterfowl habitat. UPPCO will continue its current practice of restricting water level fluctuation while taking into account public safety and downstream water needs.

#### **4.4 Wildlife management**

Wildlife management activities on project lands are accomplished through a nesting structure installation and maintenance as part of the Wildlife Management Plan. UPPCO will continue to cooperate with MDNR and U.S. Fish and Wildlife Service (FWS) in the prescription, study and implementation of wildlife management activities within the project according to the guidelines established in the Wildlife Management Plan.

#### **4.5 Timber Stand Improvement**

Timber stand improvement (TSI) is a non-commercial management practice designed to improve habitat quality. Prohibiting commercial logging near project waters decreases potential erosion and sedimentation, increases opportunities for individual trees and forests to mature, and preserves the aesthetic character of project shorelines and waters. The goal of TSI is to identify and protect existing habitat and sensitive areas. Through selective timber harvesting, removal of old or dead vegetation, and vegetative management, TSI contributes to improved wildlife habitat and aesthetic management. Hollow trees and snags that appear to be used for nesting/den purposes will be left undisturbed, if it does not present a safety hazard, in areas where aesthetic management is not a priority. Fruit and mast bearing trees and shrubs that provide food for wildlife will be retained when possible on UPPCO-owned lands within the project.

#### **4.6 Insects and Disease Control**

Damage to the forest caused by insects, disease, and other pests can create an adverse effect on forest management. Preventable losses to timber and aesthetics caused by forest pests will be accomplished by detection and suppression methods. UPPCO will rely on MDNR forest staff services in the fields of forest entomology and pathology. UPPCO will report forest pest activities, unusual tree damage, or insect outbreaks to the MDNR.

Suppression of forest pests is based upon established and proven techniques and may include one or more of the following:

- (1) Monitoring
- (2) Biological control
- (3) Chemical control
- (4) Silvicultural manipulation (in accordance with approved forest management techniques)

The necessity and techniques for control will be determined jointly by UPPCO and MDNR. UPPCO assistance will be provided in the form of personnel and equipment.

#### **4.7 Fire Control**

MDNR, in cooperation with local fire departments, the Forest Service and fire wardens, is responsible for fire detection and suppression activities on the forested lands of Michigan. Since fire detection is the responsibility of the MDNR, UPPCO personnel will report any wild fires to them. UPPCO will cooperate with MDNR in the interest of fire prevention, detection, and suppression on company owned lands. UPPCO conducts and controls all operations on company owned lands in a manner designed to prevent forest fires.

#### **4.8 Threatened and Endangered Species**

When threatened or endangered species are identified in the project boundaries, UPPCO will implement appropriate management practices in consultation with MDNR and FWS, according to the guidelines outlined in the Wildlife Management Plan.

### **5.0 IMPLEMENTATION**

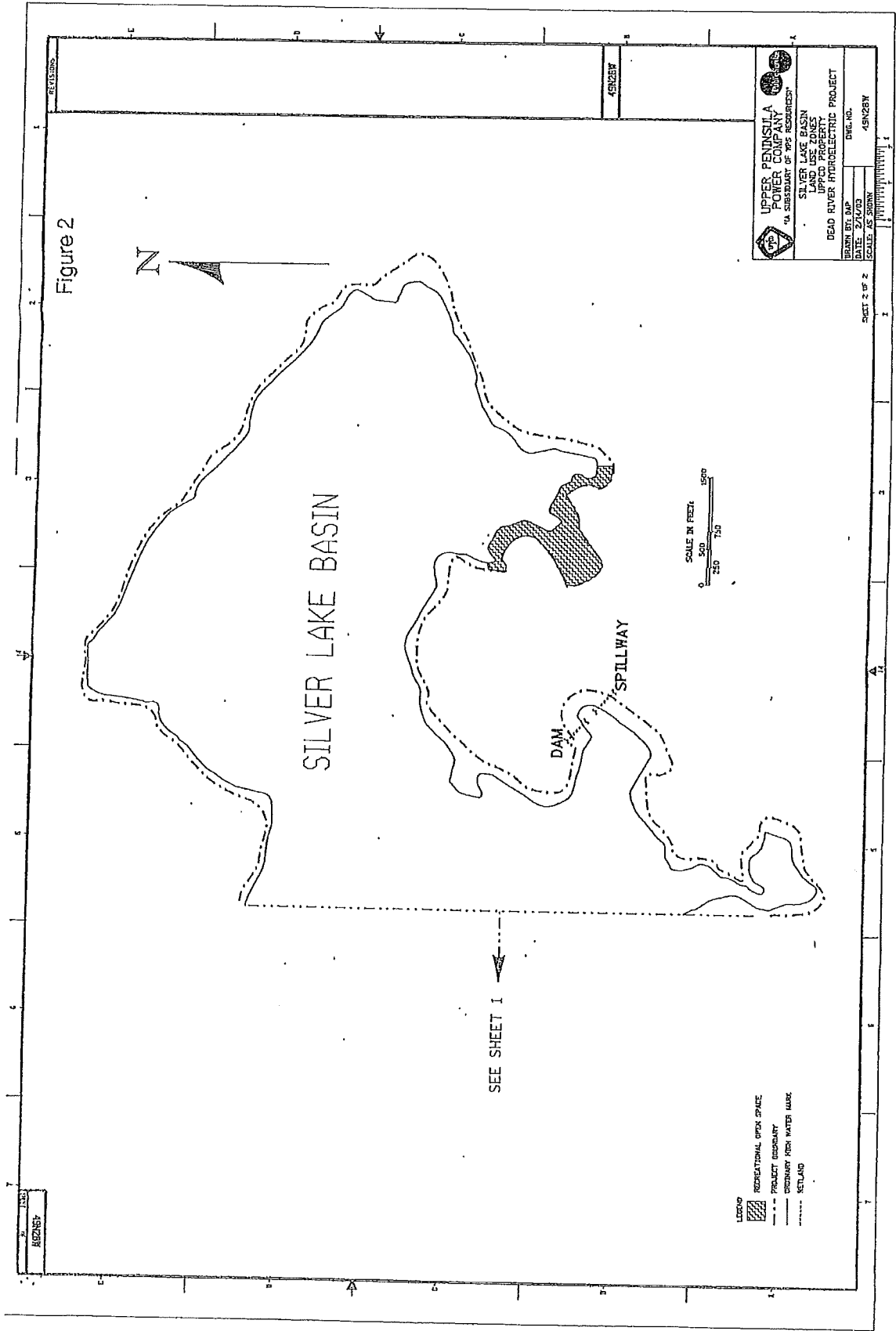
UPPCO personnel are responsible for planning and management of the Dead River Hydroelectric Project lands. When necessary, resource specialists are either contracted with or hired on a temporary basis to perform specific management functions (i.e. tree planting, reconnaissance update, etc.) on UPPCO property within the Project.

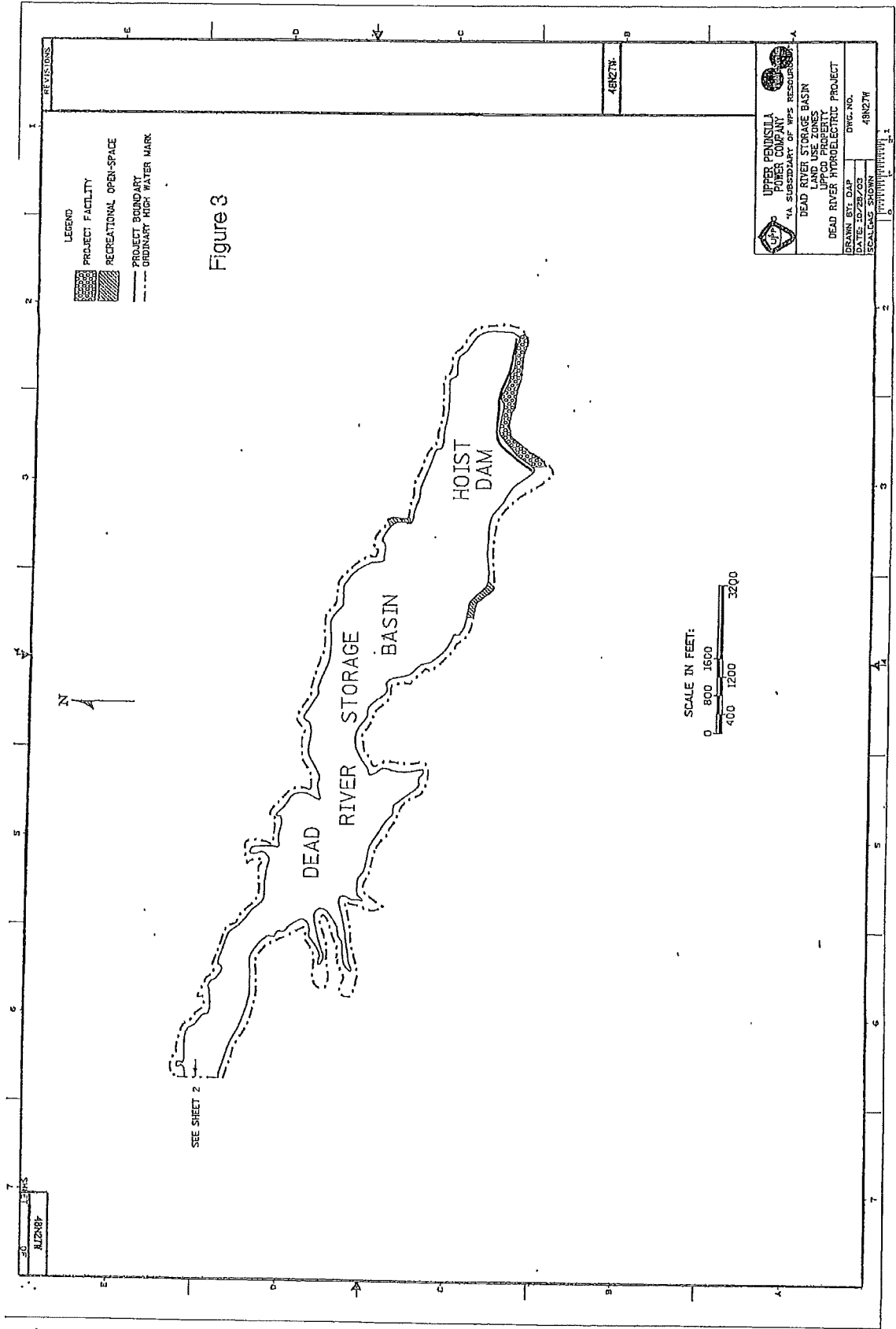
### **6.0 CONSULTATION EFFORTS**

Consultation with the MDNR is important to the success of the Land Use Plan. At a minimum, consultation will occur every five years to update the Land Use Plan. On an annual basis, usually in the winter season, MDNR will be consulted to discuss the proposed land use activities for the following year. Any other management activities will be handled on a case-by-case basis. Other issues that may also be addressed on an annual basis are topics such as changes to the Land Use Plan and other conservation efforts. UPPCO may also consult with the agencies at times throughout the year to modify plans and utilize their expertise on issues such as forest entomology.

## **FIGURES**









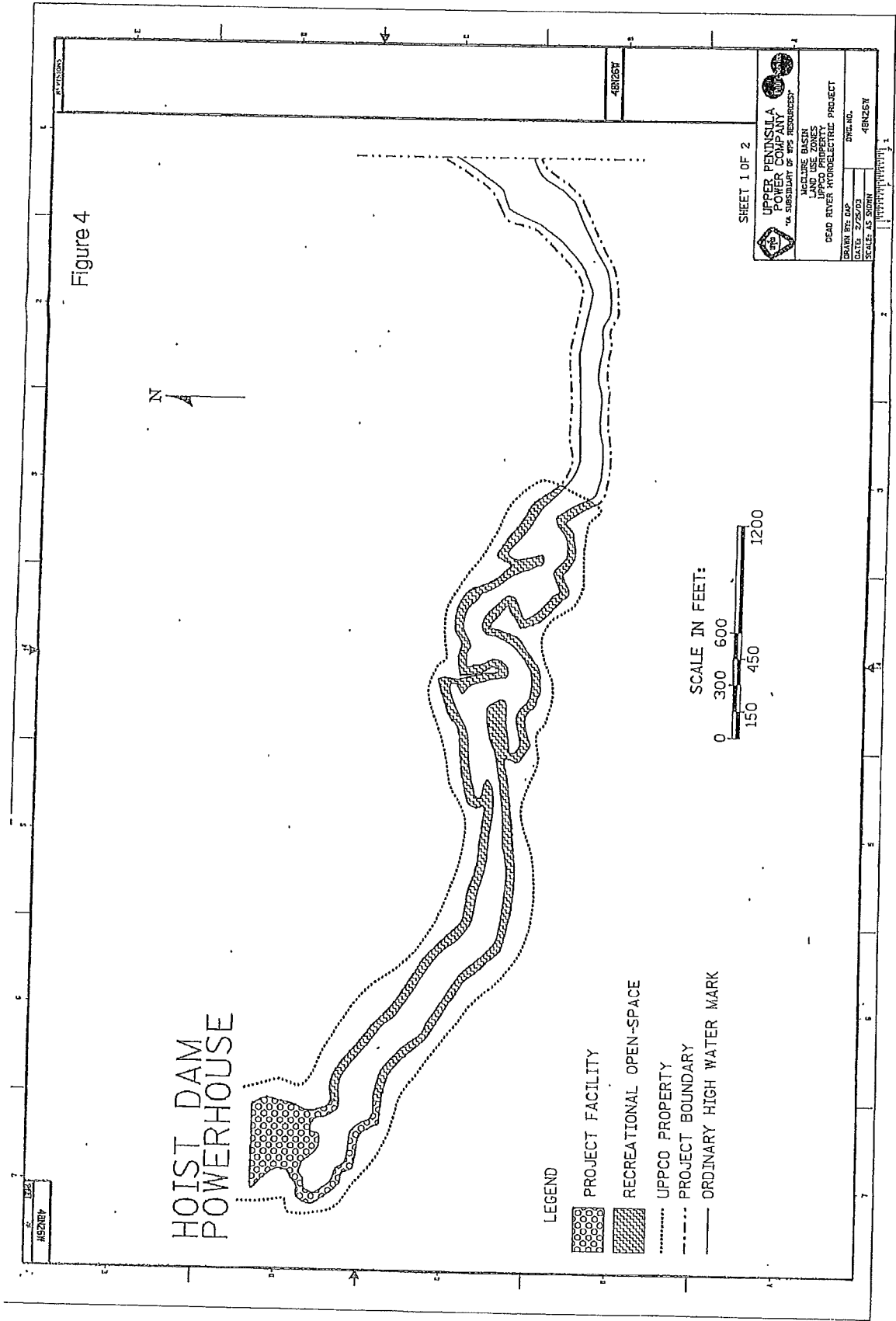
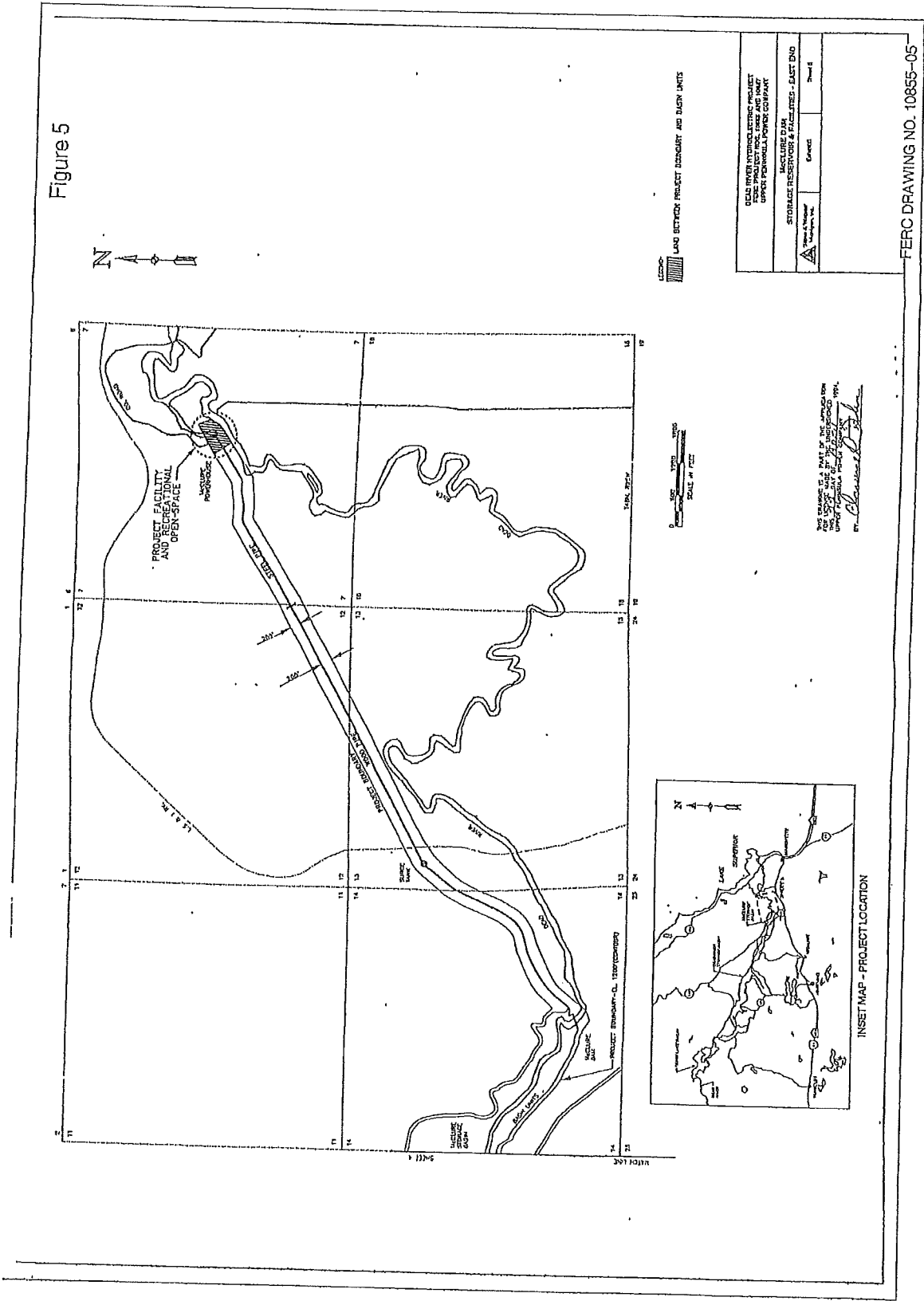


Figure 5



FERC DRAWING NO. 10855-05

## **APPENDIX B**

### **DOCUMENTATION OF CONSULTATION**

**Nuthals, James D**

---

**From:** Nuthals, James D  
**Sent:** Friday, April 18, 2014 3:17 PM  
**To:** Kruger, Kyle (DNR) (KRUGERK@michigan.gov)  
**Subject:** UPPCO Dead River Land Use Plan 5 YR Update  
**Attachments:** 20140418UPPCOMDNRDRLUP5YRUpdateletter.pdf; 20100526Dead River Land Use Plan.pdf

**Importance:** High

Hi Kyle,

Please reference the attached UPPCO Dead River Land Use Plan Five year Update Review.

Please provide any comments or concerns within thirty (30) days of receiving this information.

Sincerely,

**James D Nuthals**

Natural Resource Management | Environmental Services | Integrys Business Support, LLC

920-433-1460

920-309-0741 *cell (please note cell phone number change)*

920-433-1176 *fax*

[jduthals@integrysgroup.com](mailto:jduthals@integrysgroup.com)

[www.integrysgroup.com](http://www.integrysgroup.com)

*Providing support for Integrys Energy Group, Integrys Energy Services, Michigan Gas Utilities, Minnesota Energy Resources, North Shore Gas, Peoples Gas, Upper Peninsula Power Company, Wisconsin Public Service, and Wisconsin River Power.*



**Upper Peninsula Power Company**  
(a subsidiary of Integrys Energy Group)  
700 North Adams Street  
P.O. Box 19001  
Green Bay, WI 54307-9001

April 18, 2014

FERC No. 10855

Mr. Kyle Kruger  
Michigan Department of Natural Resources  
Mio Field Office  
191 S. Mt. Tom Rd  
Mio, MI 48647

Dear Mr. Kruger:

**UPPCO Dead River Hydroelectric Project Order Approving Five-Year Update to the Land Use Plan**

As per the Federal Energy Regulatory Commission (FERC) Order Approving the Updated Dead River Hydroelectric Project Land Use Plan dated May 26, 2010, Upper Peninsula Power Company (UPPCO) is required to update the Land Use Plan every five years in consultation with the Michigan Department of Natural Resources (MDNR).

UPPCO conducted a review of the FERC approved Land Use Plan and believes the practices outlined in the existing plan satisfy the requirements to protect and enhance the environmental values of the project lands.

UPPCO does not propose any changes to the currently approved Dead River Hydroelectric Project Land Use Plan.

Please provide any questions or comments within thirty (30) days of receiving this letter.

Sincerely,

James Ntuhals  
Environmental Service-  
Natural Resource Management  
(920) 433-1460

UPPER PENINSULA POWER COMPANY

DEAD RIVER  
HYDROELECTRIC PROJECT

(FERC PROJECT NO. 10855)

**LAND USE PLAN**

ORDER APPROVING FIVE-YEAR UPDATE TO  
THE LAND USE PLAN UNDER 415

MAY 26, 2010

## TABLE OF CONTENTS

<b>1.0</b>	<b>OBJECTIVE .....</b>	<b>1</b>
<b>2.0</b>	<b>DESCRIPTION OF PROPERTIES.....</b>	<b>2</b>
2.1	General Description .....	2
2.2	Detailed Description .....	2
2.2.1	Geology, Topography, and Soil .....	2
<b>3.0</b>	<b>LAND USE PLAN .....</b>	<b>3</b>
3.1	Current Management Practices .....	3
3.2	Management Categories.....	3
3.2.1	Recreational Open Space .....	3
3.2.2	Project Facility Area .....	4
<b>4.0</b>	<b>Future Management Practices.....</b>	<b>4</b>
4.1	Aesthetic Management .....	4
4.2	Wetland Management.....	4
4.3	Waterfowl Management .....	5
4.4	Wildlife Management .....	5
4.5	Timber Stand Improvement.....	6
4.6	Insects and Disease Control .....	6
4.7	Fire Control .....	7
4.8	Threatened and Endangered Species .....	7
<b>5.0</b>	<b>IMPLEMENTATION 7</b>	
<b>6.0</b>	<b>CONSULTATION EFFORTS .....</b>	<b>7</b>

### List of Figures

Figures 1-2	Silver Lake Storage Basin Land Use Zones
Figure 3	Dead River Storage Basin Land Use Zones
Figure 4	McClure Storage Basin Land Use Zones
Figure 5	McClure Powerhouse Land Use Zones

**Article 415** Within one year of license issuance, the licensee shall file, for Commission approval, a comprehensive land management plan for the protection of environmental resources on licensee-owned lands within the Dead River Project boundary.

The plan shall, at a minimum, include:

- (1) maps delineating licensee-owned lands showing management zones;
- (2) methods for protection or conservation measures within the zones;
- (3) provision for continuing the policy prohibiting commercial logging on licensee-owned land within the project boundary;
- (4) provision for ensuring continued access to project lands and waters; and
- (5) a provision to update the plan every 5 years.

The licensee shall prepare the comprehensive land management plan after consultation with the Michigan Department of Natural Resources (MDNR). The licensee shall include with the plan documentation of consultation, including copies of MDNR comments and recommendations on the draft plan, and specific descriptions of how MDNR's comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for MDNR to comment and to make recommendations prior to filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon approval, the licensee shall implement the plan, including any changes required by the Commission.



## **Dead River Hydroelectric Project Land Use Plan**

### **1.0 OBJECTIVE**

The purpose of this document is to outline land use concepts, considerations, and techniques to be implemented on UPPCO properties held in fee within the Dead River Hydroelectric Project.

The intent of the land use plan is to maintain properties in a manner that protects environmentally sensitive habitat, provides aesthetic management, and ensures that land use is compatible with wildlife management.

While most of the land within the project boundary is privately owned, Upper Peninsula Power Company (UPPCO) cooperates with government agencies and private groups to improve habitat using public land use concepts where possible.

UPPCO's goal is to work in partnership with nature through proper management of the project lands for optimum enhancement and protection.

This plan includes:

- (1) maps delineating licensee-owned lands showing management zones;
- (2) methods for protection or conservation measures within the zones;
- (3) provision for continuing the policy prohibiting commercial logging on licensee-owned land within the project boundary;
- (4) provision for ensuring continued access to project lands and waters; and
- (5) a provision to update the plan every 5 years.

Land use techniques described in this plan apply only to UPPCO owned properties.

## **2.0 DESCRIPTION OF PROPERTIES**

### **2.1 General Description**

Upper Peninsula Power Company (UPPCO) purchased the Dead River Hydroelectric Project in February 1988, and began proceedings to license the project with the Federal Energy Regulatory Commission (FERC) in September 1988. It was previously owned by Cliffs Electric Service Company, a subsidiary of Cleveland-Cliffs Iron Company (CCI), the original developer of most of the project facilities.

The project is located on the Dead River in Marquette County in the central region of Michigan's Upper Peninsula. The Dead River flows in a southeasterly direction from its headwaters above Silver Lake Storage Basin to Lake Superior. The lands within the project comprise approximately 6,300 acres, with approximately 4,762 acres of surface water and 11.9 miles of free flowing river and 1,538 acres of upland area. UPPCO owns approximately 80 acres of upland area within the project boundary.

### **2.2 Detailed Description**

#### **2.2.1 Geology, Topography, and Soil.**

The Dead River Hydroelectric Project lies in the Great Lakes Basin, a geologic feature of glacial origin covering much of the Upper Peninsula. Surficial geology in the project area includes large areas of Precambrian, meta-igneous bedrocks (schist and gneiss) and metamorphic bedrocks (slate and chert). Other areas, particularly valley bottoms and wetlands, are dominated by tertiary glacial/alluvial deposits (sands, gravels, and boulders). The topography and soils of the project area have derived from material deposited through continental glaciations. The topography is dominated by large glacial outwash plains and low, rolling hills or ridges with numerous, scattered, wet depressions. The areas soil characteristics are closely associated with these different landforms and bedrock types. Soils are relatively young, very complex, intermingled and have immature drainage patterns.

### **3.0 LAND USE PLAN – UPPCO OWNED PROPERTY**

#### **3.1 Current Management Practices**

UPPCO's land use practices are designed to protect and enhance the existing environmental values of UPPCO owned lands. It is UPPCO's practice that within 200 feet of any waterway, forest management will occur for safety, aesthetic, and operational purposes only. Restricting commercial logging near project waters decreases potential erosion and sedimentation concerns, increases opportunities for individual trees and forests to mature, and preserves the aesthetic character of project shorelines and waters. Very little land within the project is owned by UPPCO. UPPCO holds a number of leases and flowage rights for the purpose of project operation, including the right to inundate lands, but not including the right to use or manage the forests on project lands. Therefore, UPPCO has no ability to manage forest habitats on most project lands.

#### **3.2 Management Zones**

The objective of management zones is to identify areas that have different functions within the project, so that each category may be managed differently to best meet each zone objective. UPPCO has two separate management zones for UPPCO land within the project: Recreational Open-Space and Project Facility Areas. Figures 1 through 5 show the management zones for UPPCO owned lands within the project.

##### **3.2.1 Recreational Open-Space**

UPPCO property within the project boundary that is not directly associated with hydroelectric operations will be managed as recreational open-space. Recreational open-space includes both wetlands and upland forest habitat, and is open to the public. Recreational open-space areas provide access to or near the waters edge. Designated public access and parking for motor vehicles is present at project impoundments. Types of recreational activities that are permitted in this management zone include, but are not limited to, hiking, shore fishing, and sightseeing. Proper management practices protect the natural beauty and unique recreational opportunities inherent to the area. Minimal vegetative management, beyond aesthetic, will occur on UPPCO owned land within this area. Timber stand improvement (see section 4.5) is used to thin

overgrown or diseased areas to improve wildlife habitat. Existing and potential future recreational development areas and trails, which consider scenic values, are compatible.

### **3.2.2 Project Facility Areas**

Project facility areas associated with the hydroelectric project developments include dams, powerhouses, dikes, maintenance staging areas, other project structures, and some access roads. For public safety and security, general access to project facility areas is restricted. Based upon the layout of projects and recreational demands, specific public use opportunities that meet safety and security requirements (i.e. canoe portage, bank fishing, parking, etc.) are permitted. Vegetation management will be conducted for the maintenance and protection of project facilities. Due to the high visibility of the areas, aesthetic management principles will be practiced whenever feasible. Wildlife management activities are permitted provided they do not compromise project facility integrity and safety.

## **4.0 Future Management Practices**

The following management practices will be considered and/or incorporated in each of the management zones.

### **4.1 Aesthetic Management**

Aesthetic management is an effort toward greater integrated management of the total forest resource. It emphasizes management toward more visually pleasing landscapes, enhanced visual diversity, creation of landscapes more beneficial to wildlife with more diverse habitats, a variation of environmental types, and a greater richness of border vegetation. Aesthetic management is used when the timber or vegetative resources begin to degrade in any of the above-mentioned factors. Techniques such as reduction of slash visibility and selective timber removal may be used to increase the aesthetic value of a forest. Vegetative management may be appropriate in some instances. Areas that utilize aesthetic techniques are areas of high public use adjacent to the project facilities, reservoirs, rivers, and highways.

### **4.2 Wetland Management**

UPPCO will preserve, protect, and manage all wetlands under company ownership in a manner that recognizes their natural values and importance to the environment. An inventory of

wetlands found on project lands was completed and is included in the hydroelectric project license application. Wetlands will be managed to maximize their natural productive attributes with a primary emphasis on water conservation, wildlife, recreation, and scenic or scientific values. To this end, UPPCO shall:

- Recognize the obvious and subtle natural values when conducting management or operational activities, and take all reasonable steps to minimize harmful effects.
- Maintain control of vital wetlands under company ownership when to relinquish such control would risk degradation of wetland values.
- Continue hydroelectric project operations that minimize adverse impacts to the quality or quantity of waters that maintain wetlands.
- Consult with the Michigan Department of Natural Resources when project operations will impact wetlands.

#### **4.3 Waterfowl Management**

UPPCO waterfowl management activities center upon the reservoir. The water levels maintained by the hydroelectric project have created acres of wetlands for waterfowl habitat. UPPCO will continue its current practice of restricting water level fluctuation while taking into account public safety and downstream water needs.

#### **4.4 Wildlife management**

Wildlife management activities on project lands are accomplished through a nesting structure installation and maintenance as part of the Wildlife Management Plan. UPPCO will continue to cooperate with MDNR and U.S. Fish and Wildlife Service (FWS) in the prescription, study and implementation of wildlife management activities within the project according to the guidelines established in the Wildlife Management Plan.

#### **4.5 Timber Stand Improvement**

Timber stand improvement (TSI) is a non-commercial management practice designed to improve habitat quality. Prohibiting commercial logging near project waters decreases potential erosion and sedimentation, increases opportunities for individual trees and forests to mature, and preserves the aesthetic character of project shorelines and waters. The goal of TSI is to identify and protect existing habitat and sensitive areas. Through selective timber harvesting, removal of old or dead vegetation, and vegetative management, TSI contributes to improved wildlife habitat and aesthetic management. Hollow trees and snags that appear to be used for nesting/den purposes will be left undisturbed, if it does not present a safety hazard, in areas where aesthetic management is not a priority. Fruit and mast bearing trees and shrubs that provide food for wildlife will be retained when possible on UPPCO-owned lands within the project.

#### **4.6 Insects and Disease Control**

Damage to the forest caused by insects, disease, and other pests can create an adverse effect on forest management. Preventable losses to timber and aesthetics caused by forest pests will be accomplished by detection and suppression methods. UPPCO will rely on MDNR forest staff services in the fields of forest entomology and pathology. UPPCO will report forest pest activities, unusual tree damage, or insect outbreaks to the MDNR.

Suppression of forest pests is based upon established and proven techniques and may include one or more of the following:

- (1) Monitoring
- (2) Biological control
- (3) Chemical control
- (4) Silvicultural manipulation (in accordance with approved forest management techniques)

The necessity and techniques for control will be determined jointly by UPPCO and MDNR. UPPCO assistance will be provided in the form of personnel and equipment.

#### **4.7 Fire Control**

MDNR, in cooperation with local fire departments, the Forest Service and fire wardens, is responsible for fire detection and suppression activities on the forested lands of Michigan. Since fire detection is the responsibility of the MDNR, UPPCO personnel will report any wild fires to them. UPPCO will cooperate with MDNR in the interest of fire prevention, detection, and suppression on company owned lands. UPPCO conducts and controls all operations on company owned lands in a manner designed to prevent forest fires.

#### **4.8 Threatened and Endangered Species**

When threatened or endangered species are identified in the project boundaries, UPPCO will implement appropriate management practices in consultation with MDNR and FWS, according to the guidelines outlined in the Wildlife Management Plan.

#### **5.0 IMPLEMENTATION:**

UPPCO personnel are responsible for planning and management of the Dead River Hydroelectric Project lands. When necessary, resource specialists are either contracted with or hired on a temporary basis to perform specific management functions (i.e. tree planting, reconnaissance update, etc.) on UPPCO property within the Project.

#### **6.0 CONSULTATION EFFORTS**

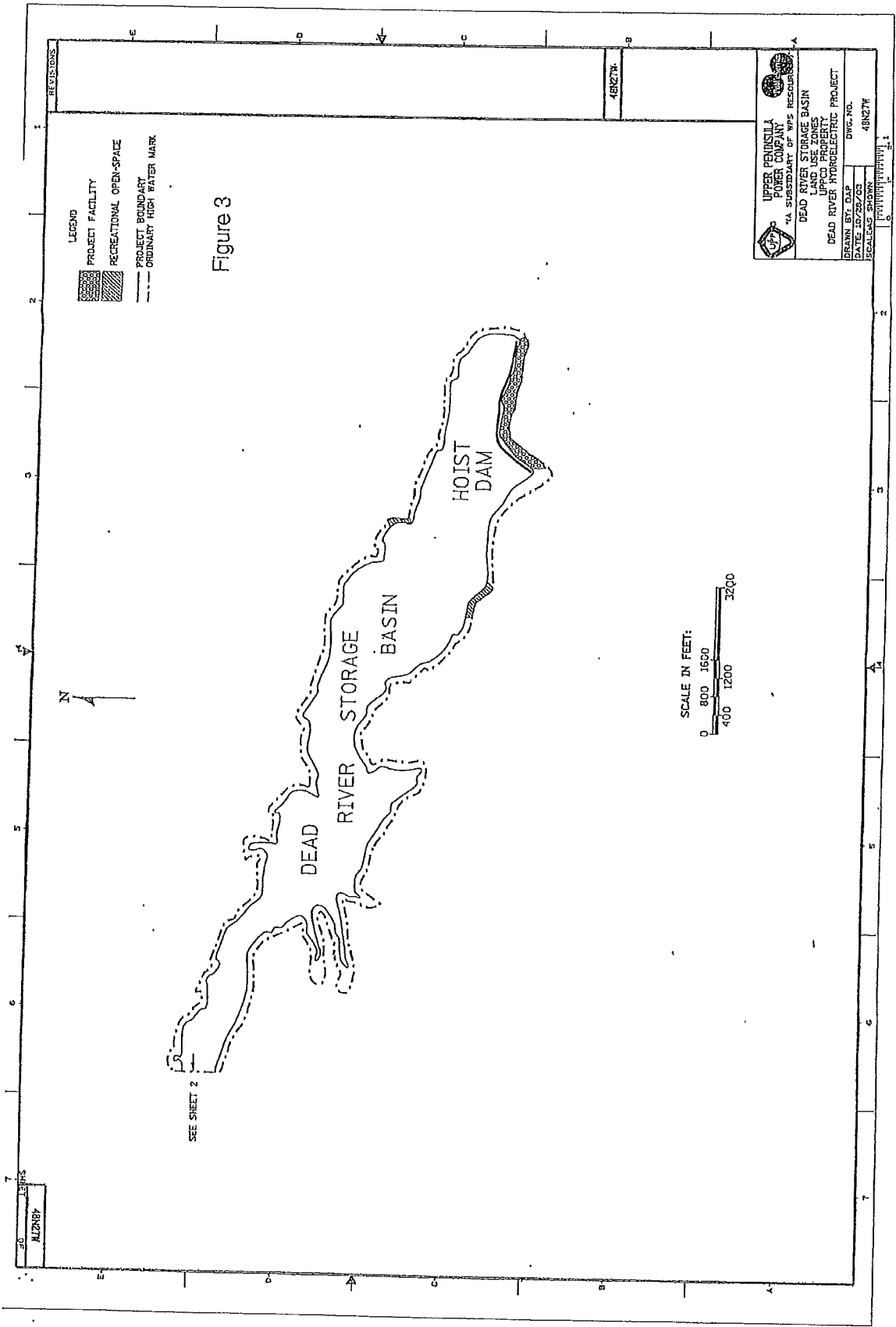
Consultation with the MDNR is important to the success of the Land Use Plan. At a minimum, consultation will occur every five years to update the Land Use Plan. On an annual basis, usually in the winter season, MDNR will be consulted to discuss the proposed land use activities for the following year. Any other management activities will be handled on a case-by-case basis. Other issues that may also be addressed on an annual basis are topics such as changes to the Land Use Plan and other conservation efforts. UPPCO may also consult with the agencies at times throughout the year to modify plans and utilize their expertise on issues such as forest entomology.

## **FIGURES**









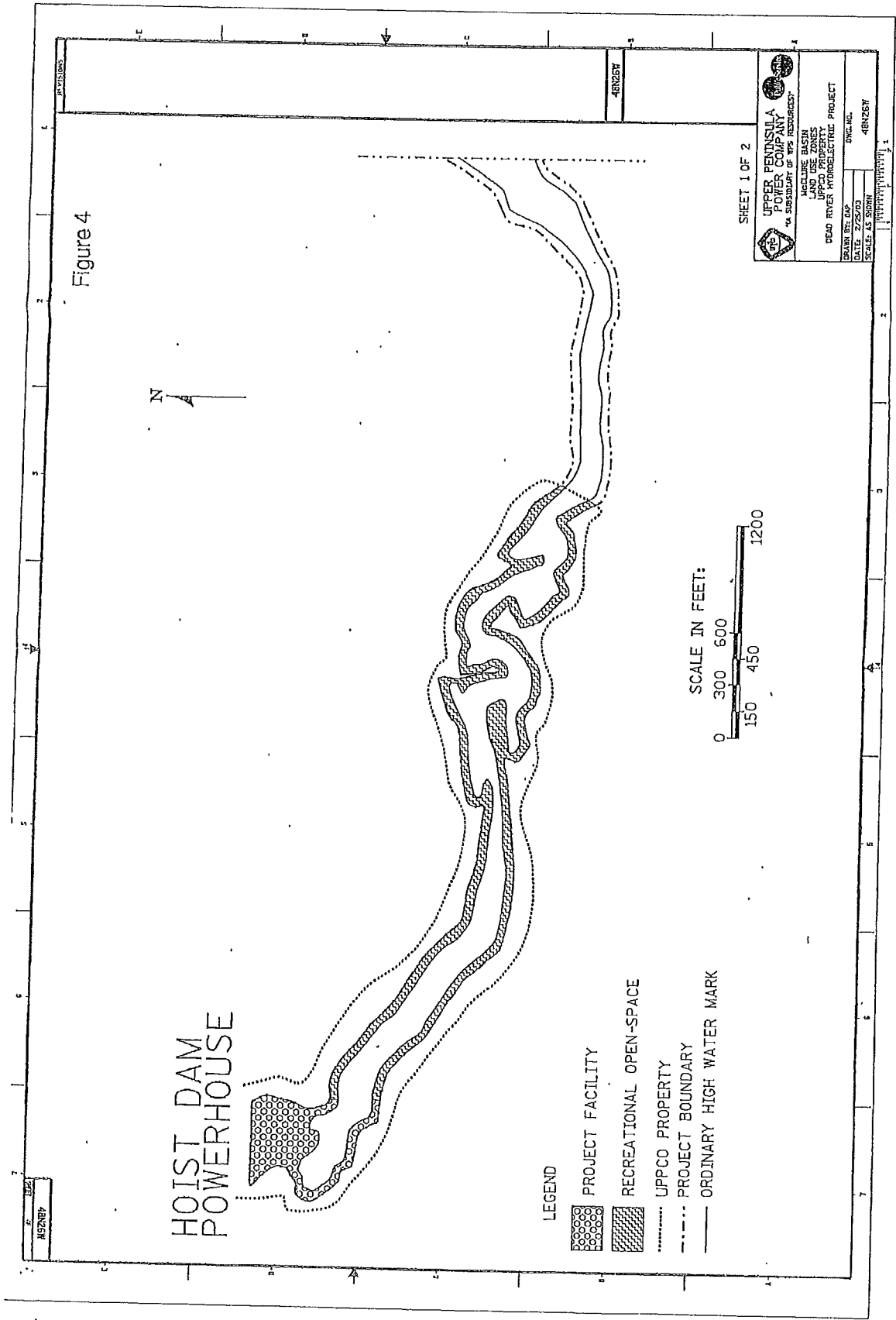
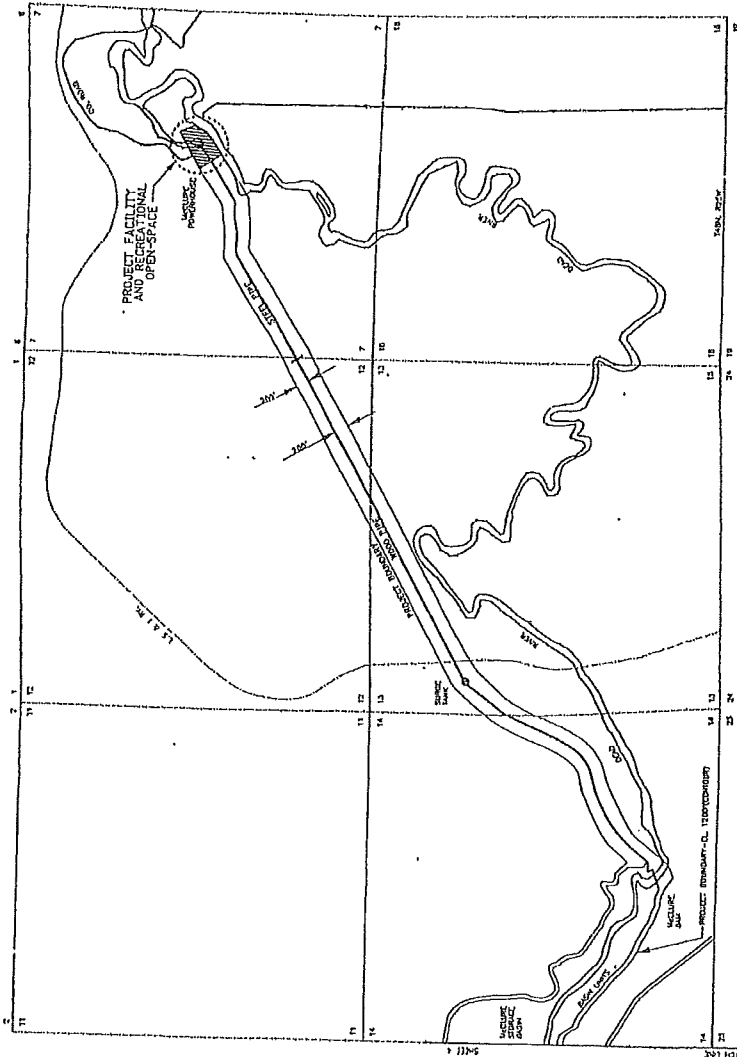
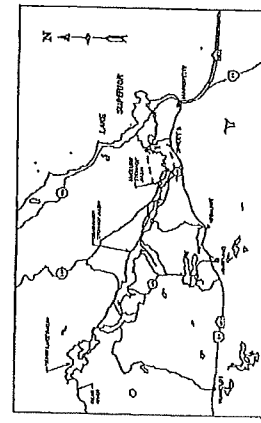


Figure 5



LEGEND  
PROJECT FACILITY AND RECREATIONAL OPEN SPACE  
PROJECT RESERVOIR - CL. 1300 (Closed)

0 500 1000  
SCALE IN FEET



INSET MAP - PROJECT LOCATION

DEVELOPMENT PROJECT INFORMATION PROJECT NAME: PROJECT FACILITY AND RECREATIONAL OPEN SPACE PROJECT LOCATION: PROJECT FACILITY AND RECREATIONAL OPEN SPACE PROJECT OWNER: PROJECT FACILITY AND RECREATIONAL OPEN SPACE	
PROJECT RESERVOIR & FACILITIES - EAST DND	
Project Reservoir	East DND
Project Reservoir	East DND

FERC DRAWING NO. 10855-05

No Comments were received from the MDNR

Document Content(s)

20140528UPPCOFERCDRLUP5YRUpdateletter.PDF.....1-1

20140528 Dead River Land Use Plan Appendix A.PDF.....2-18

20140528 Dead River Land Use Plan Appendix B.PDF.....19-38