



Upper Peninsula Power Company
800 Greenwood Street
Ishpeming, MI 49849
www.UPPCO.com

May 31, 2019

FERC Project No. 10855

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

Dear Secretary Bose:

Dead River Hydroelectric Project

Article 415: Five-Year Update to the Land Use Plan

Pursuant to ordering paragraph (B) of the Order Modifying and Approving Land Use Plan issued June 10, 2004, the Order Approving Five-Year Update to the Land Use Plan under Article 415 issued May 26, 2010, and to the Order Approving Five-Year Update to the Land Use Plan under Article 415 issued July 3, 2014, Upper Peninsula Power Company (UPPCO) is required, in consultation with the Michigan Department of Natural Resources (MDNR), to update the Land Use Plan every five years from the plan approval date and submit it to the Commission for approval.

UPPCO conducted a review of its approved Land Use Plan and concluded that it should continue to contribute to the protection and enhancement of the conservation measures within the designated management zones, and to ensure continued public access on licensee-owned or controlled project lands and waters of the project. Minor edits, light formatting, and a few grammatical corrections were made to modernize the document, which was then sent to the MDNR for comment. Comments were received back from the MDNR on April 25, 2019 and are provided in Appendix 2 along with UPPCO responses. The Land Use Plan has been updated according to UPPCO responses and is provided in Appendix 1.

Please contact Mr. Kenneth Carruthers at (906) 485-2482 if you have any questions regarding the content of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Virgil Schlorke".

Virgil Schlorke
Director - Generation and Environmental Services

KMC/ebr

Enclosures: Appendix 1 – Dead River Hydroelectric Project Article 415: Land Use Plan Rev. 1
Appendix 2 – MDNR Comments and UPPCO Responses

cc: Mr. Josh Ball, UPPCO
Mr. Ken Carruthers, UPPCO

Ms. Elle Gulotty, MDNR

Ms. Emily Rushford, UPPCO

Appendix 1 - Dead River Hydroelectric Project Article 415: Land Use Plan

UPPER PENINSULA POWER COMPANY



Dead River Hydroelectric Project (FERC
Project No. 10855)

Article 415: Land Use Plan Rev. 1

TABLE OF CONTENTS

1.0	OBJECTIVE	4
2.0	DESCRIPTION OF PROPERTIES.....	4
2.1	General Description	4
2.2	Detailed Description	5
2.2.1	Geology, Topography, and Soil	5
3.0	LAND USE PLAN – UPPCO-OWNED PROPERTY.....	5
3.1	Current Management Practices	5
3.2	Management Zones	6
3.2.1	Recreational Open Space	6
3.2.2	Project Facility Areas.....	6
4.0	FUTURE MANAGEMENT PRACTICES.....	7
4.1	Aesthetic Management.....	7
4.2	Wetland Management.....	7
4.3	Waterfowl Management	8
4.4	Wildlife Management	8
4.5	Timber Stand Improvement.....	8
4.6	Insects and Disease Control.....	8
4.7	Fire Control	9
4.8	Threatened and Endangered Species	9
5.0	IMPLEMENTATION.....	9
6.0	CONSULTATION EFFORTS	10

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. Land Use Plan. 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 measure 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, 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 area's 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 water's 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; and
- consult with MDNR, Michigan Department of Environment, Great Lakes, and Energy (EGLE), and U.S. Fish and Wildlife Service (FWS) when project operation may have probable/possible impacts to wetlands.

4.3 Waterfowl Management

UPPCO waterfowl management activities center upon the project reservoirs. 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 Dead River Hydroelectric Project Article 411 Wildlife Management Plan (WMP). UPPCO will continue to cooperate with MDNR and FWS in the prescription, study, and implementation of wildlife management activities within the project according to the guidelines established in the WMP.

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 water 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, diseases, 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 notify its primary contact at MDNR regarding any new

observations of pest activities, unusual tree damage, or insect outbreaks via email at the time such observations are made.

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

- (1) monitoring;
- (2) biological control;
- (3) chemical control; or
- (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 United State Forest Service (USFS) and fire wardens, is responsible for fire detection and suppression activities on the forested lands of Michigan. Since fire detection is the responsibility of MDNR, UPPCO personnel will report and wildfires to them. UPPCO will cooperate with MDNR in the interest of fire prevention, detection, and suppression on company-owned lands. UPPCO conducts and control 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 WMP.

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 (e.g., tree planting, reconnaissance update, etc.) on UPPCO property within the project.

6.0 CONSULTATION EFFORTS

Consultation with 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.

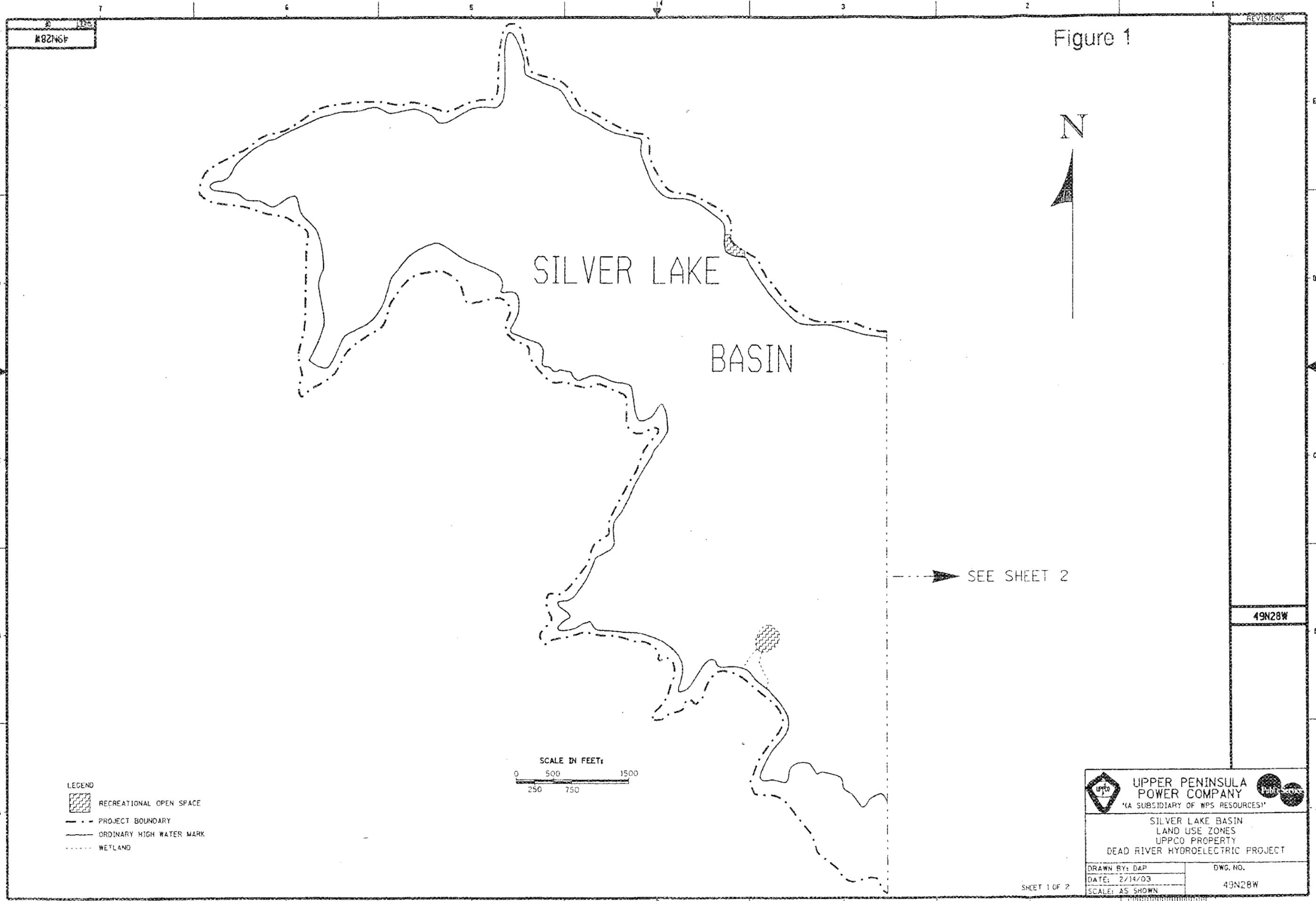


Figure 1

REVISIONS

SILVER LAKE
BASIN

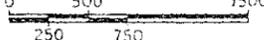
N

SEE SHEET 2

49N28W

- LEGEND
-  RECREATIONAL OPEN SPACE
 -  PROJECT BOUNDARY
 -  ORDINARY HIGH WATER MARK
 -  WETLAND

SCALE IN FEET



	UPPER PENINSULA POWER COMPANY		
	"A SUBSIDIARY OF NPS RESOURCES"		
SILVER LAKE BASIN LAND USE ZONES UPPCO PROPERTY DEAD RIVER HYDROELECTRIC PROJECT			
DRAWN BY: DAP		DWG. NO.	
DATE: 2/14/03		49N28W	
SCALE: AS SHOWN			

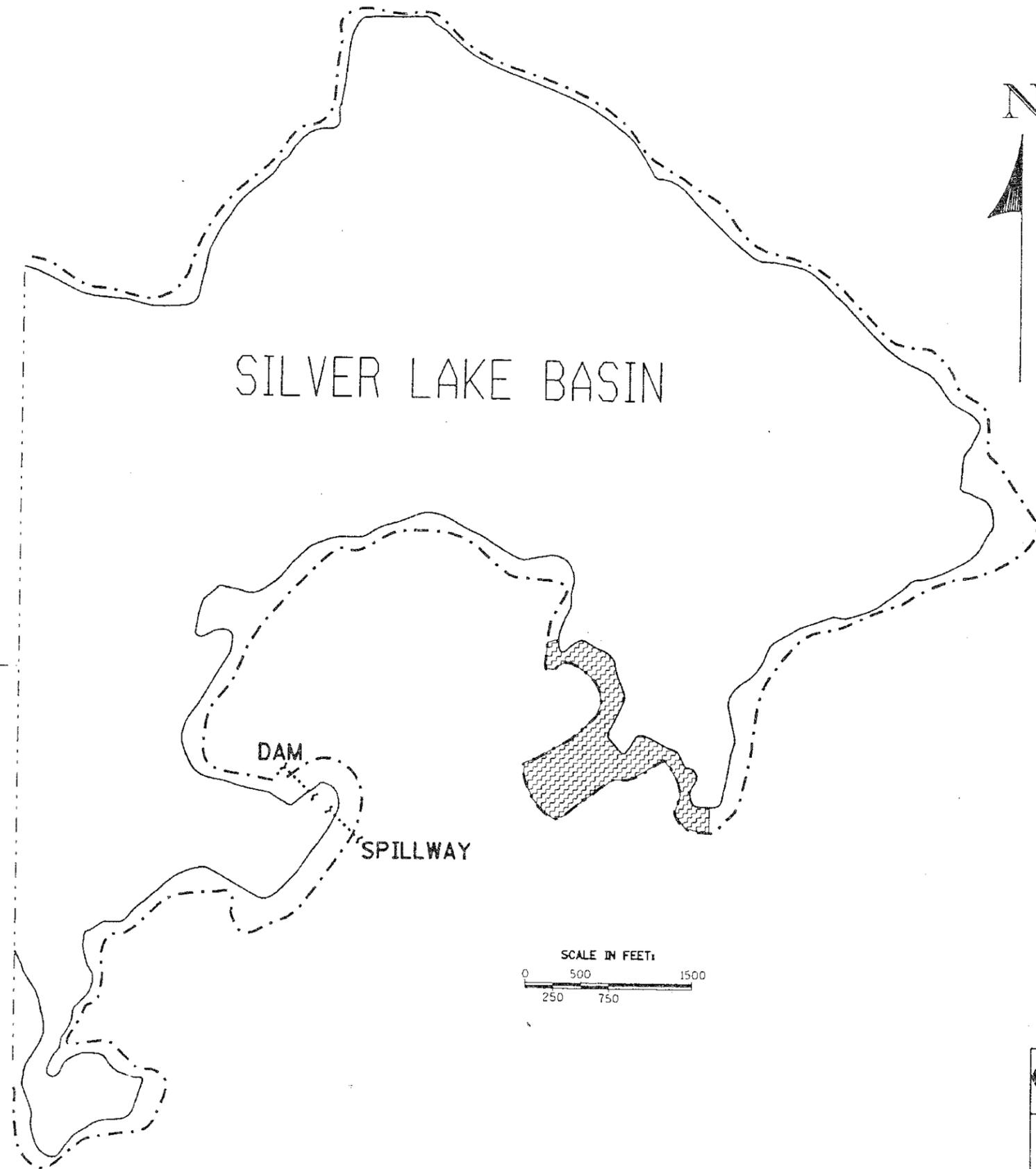
M82N6P

Figure 2

REVISIONS

E
D
C
B
A

E
D
C
B
A



SILVER LAKE BASIN

SEE SHEET 1

DAM

SPILLWAY

SCALE IN FEET:



LEGEND

-  RECREATIONAL OPEN SPACE
-  PROJECT BOUNDARY
-  ORDINARY HIGH WATER MARK
-  WETLAND

49N28W

 UPPER PENINSULA POWER COMPANY <small>(A SUBSIDIARY OF WPS RESOURCES)</small>	
SILVER LAKE BASIN LAND USE ZONES UPPCO PROPERTY DEAD RIVER HYDROELECTRIC PROJECT	
DRAWN BY: DAP DATE: 2/14/03 SCALE: AS SHOWN	DWG. NO. 49N28W

7

6

5

4

3

2

1

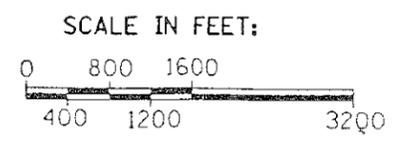
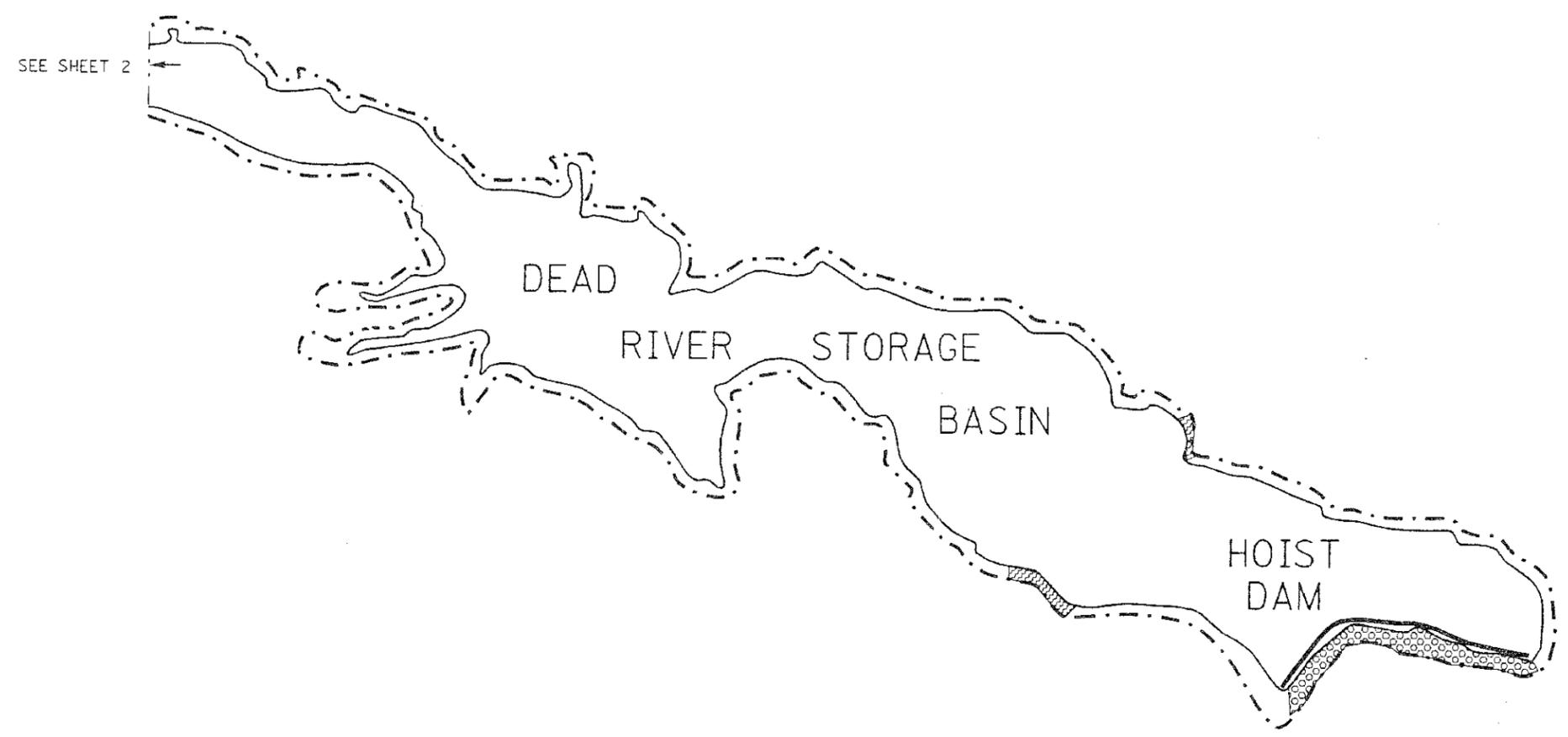
MJZNB+

REVISIONS



- LEGEND
-  PROJECT FACILITY
 -  RECREATIONAL OPEN-SPACE
 -  PROJECT BOUNDARY
 -  ORDINARY HIGH WATER MARK

Figure 3



48N27W

	UPPER PENINSULA POWER COMPANY		
	A SUBSIDIARY OF WPS RESOURCES		
DEAD RIVER STORAGE BASIN LAND USE ZONES UPPCO PROPERTY DEAD RIVER HYDROELECTRIC PROJECT			
DRAWN BY: DAP		DWG. NO.	
DATE: 10/28/03		48N27W	
SCALE AS SHOWN			

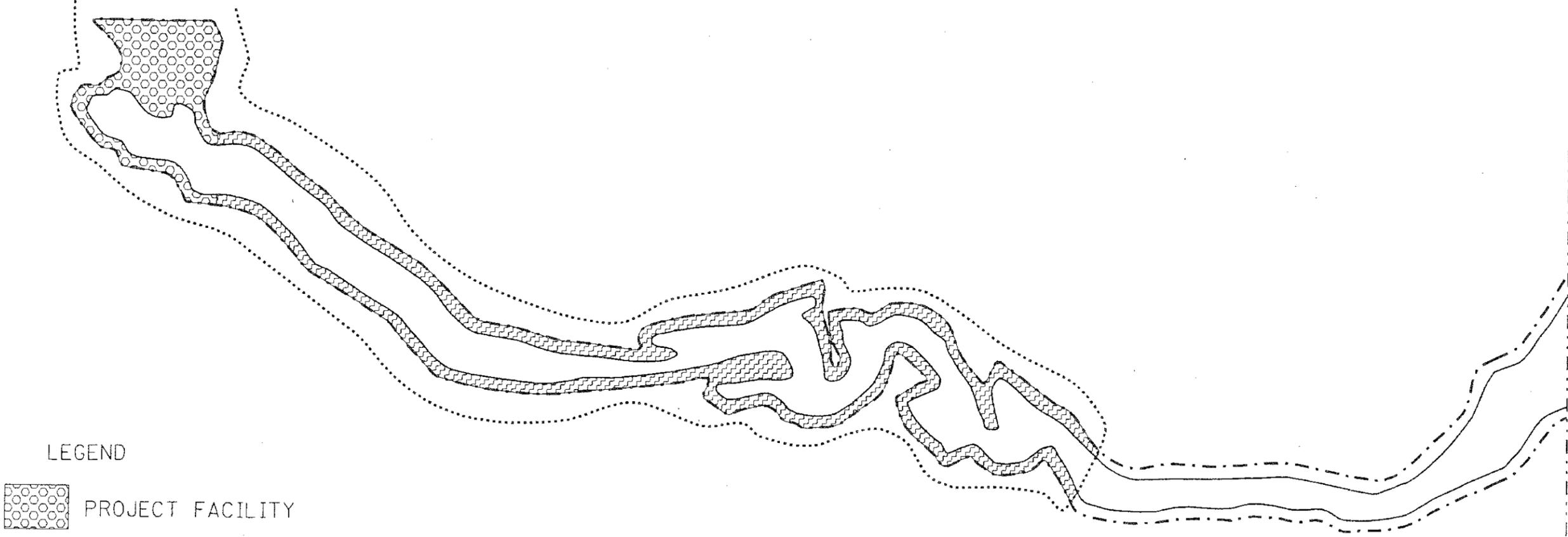


48N26W

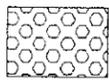
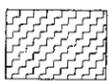
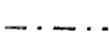
REVISIONS

Figure 4

HOIST DAM POWERHOUSE



LEGEND

-  PROJECT FACILITY
-  RECREATIONAL OPEN-SPACE
-  UPPCO PROPERTY
-  PROJECT BOUNDARY
-  ORDINARY HIGH WATER MARK

SCALE IN FEET:

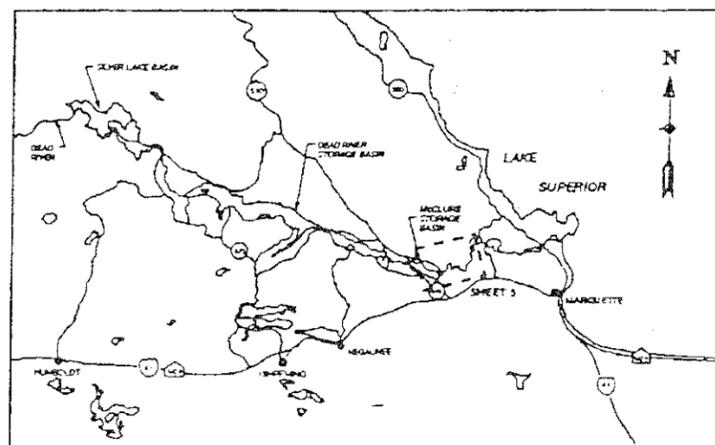
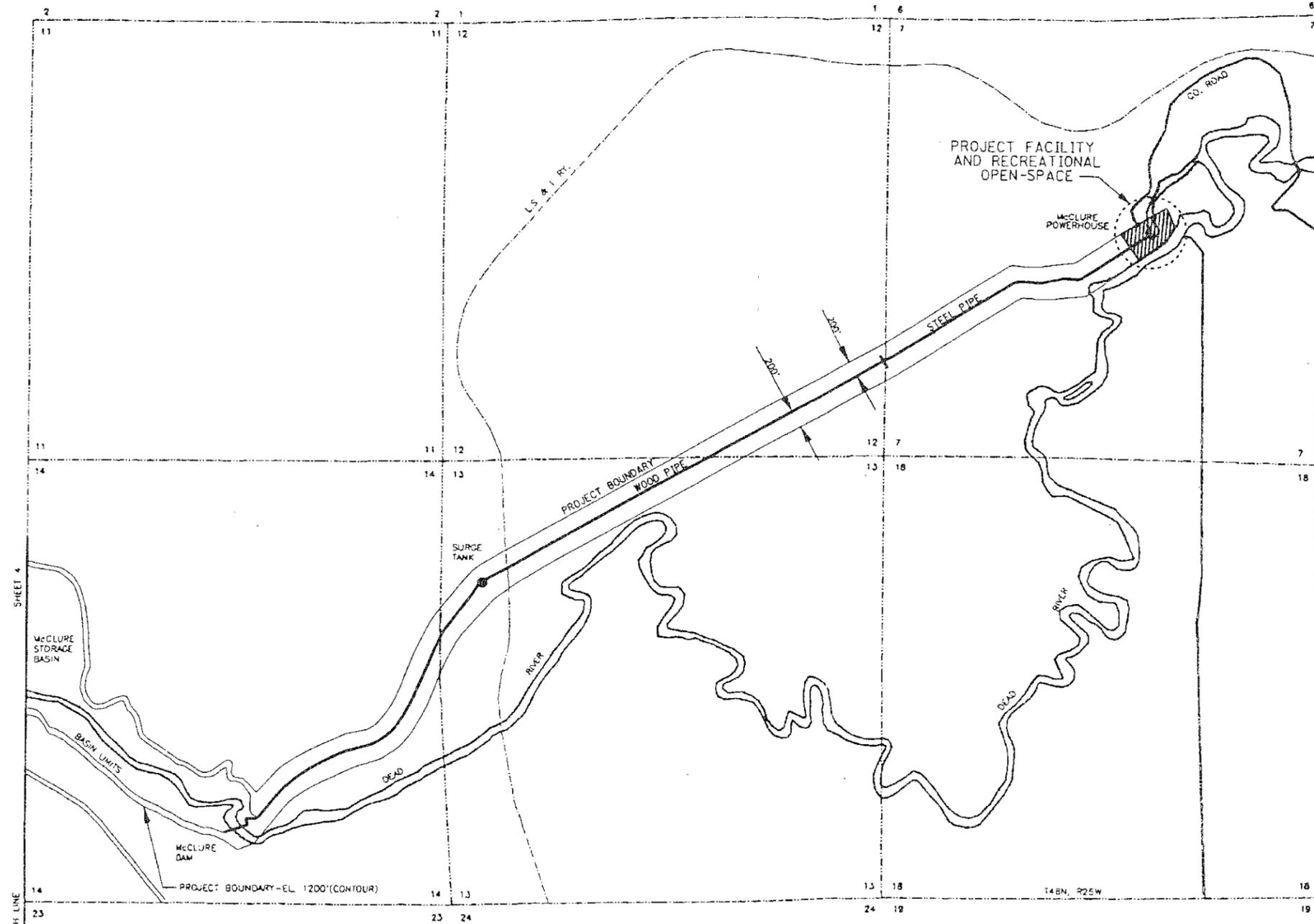


48N26W

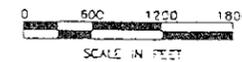
SHEET 1 OF 2

		UPPER PENINSULA POWER COMPANY			
<small>*(A SUBSIDIARY OF WPS RESOURCES)*</small>					
MCLURE BASIN LAND USE ZONES UPPCO PROPERTY DEAD RIVER HYDROELECTRIC PROJECT					
DRAWN BY: DAP			DWG. NO.		
DATE: 2/25/03			48N26W		
SCALE: AS SHOWN					

Figure 5



INSET MAP - PROJECT LOCATION



LEGEND:

LAND BETWEEN PROJECT BOUNDARY AND BASIN UNITS

DEAD RIVER HYDROELECTRIC PROJECT
FERC PROJECT NOS. 10855 AND 10857
UPPER PENINSULA POWER COMPANY

McCLURE DAM
STORAGE RESERVOIR & FACILITIES - EAST END

Siron & Weaver Michigan, Inc.	Exhibit G	Sheet 5
----------------------------------	-----------	---------

THIS DRAWING IS A PART OF THE APPLICATION
FOR LICENSE MADE BY THE UNDERSIGNED
THIS 22 DAY OF April, 1994.
UPPER PENINSULA POWER COMPANY
BY: *Charles D. Fisher*

Appendix 2 - MDNR Comments and UPPCO Responses

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.

Summary of Comments on 20190425 MDNR Comments on Five-Year Update.pdf

Page: 5

Number: 1 Author: Gulottye Subject: Sticky Note Date: 4/25/2019 10:50:58 AM

The document should specify measures UPPCO will take ensure continued public access.

Number: 2 Author: Gulottye Subject: Sticky Note Date: 4/25/2019 10:55:15 AM

Clarify definition of aesthetic management. The intent of terms "aesthetic" and "scenic" should be made clearer.

The definition in 4.1 specifies reducing slash. Commercial harvest is prohibited. Clarify what is intended by this statement. If slash is produced during tree trimmings for safety or disease control, is it removed in accordance with this section? Is 'slash' from other sources (e.g., wind-throw or snow) managed? These other sources are part of natural processes and management may be unnecessary or counterproductive unless that debris interferes with other specified uses.

Section 4.1 says selective timber removal may be used to increase the aesthetic value of a forest. How is the aesthetic value of a forest determined? Provide the criteria for selective timber removal to this end.

In Sections 1.0, 3.1, 3.2.1, 3.2.2, 4.1, 4.5, and 4.6 specify what if any actions UPPCO would take based on "aesthetic" values or concerns. If actions are planned, outline them in section 5.

Further, the document (4.5) currently states that TSI will be used to 'improve habitat quality.' Has this been done? Does UPPCO intend to do this in the future? If so, please state the objectives. Please clarify how this relates to section 4.1.

Number: 3 Author: Gulottye Subject: Highlight Date: 4/25/2019 9:27:57 AM

Number: 4 Author: Gulottye Subject: Sticky Note Date: 4/25/2019 10:51:42 AM

This document lacks detail in its description of cooperation and coordination with owners of privately owned land within the project boundary.

Number: 5 Author: Gulottye Subject: Sticky Note Date: 4/25/2019 9:20:19 AM

The maps must be replaced. The maps provided are outdated, not at high enough resolution to be useful, and include information that is incorrect. Digital mapping technology has vastly improved over the last 15+ years, and should be utilized to delineate management zones. Images derived from digital mapping should be included in a revised Appendix, and files supporting those images should be shared via email.

Number: 6 Author: Gulottye Subject: Highlight Date: 4/25/2019 9:14:49 AM

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 water's 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.

Page: 7

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 9:22:44 AM

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 ¹integrated 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 ²recognizes their natural values and importance to the environment. ³In 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 water ⁴maintain wetlands; and
- consult with MDNR when project operations will impact wetlands.

Page: 8

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 9:51:42 AM

 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 9:52:10 AM

Please describe specific actions or activities undertaken or planned as part of this effort.

 Number: 2 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 9:53:12 AM

Either include document referenced as attachment or on digital maps.

 Number: 3 Author: Gulotty Subject: Highlight Date: 4/25/2019 9:52:25 AM

 Number: 4 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 9:55:43 AM

Consultation on wetlands should include MDEQ/DEGLE and FWS, and address both probable and possible impacts.

4.3 Waterfowl Management

UPPCO waterfowl management activities center upon the project reservoirs. 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 Dead River Hydroelectric Project Article 411 Wildlife Management Plan (WMP). 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 WMP.

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 water 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.

¹ollow 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, diseases, and other pests can create an adverse effect on forest management. ²reventable losses to timber and aesthetics caused by forest pests will be accomplished by detection and suppression methods. ³PPCO will rely on MDNR forest staff services in the fields of forest entomology and pathology. ⁴UPPCO will report forest pest activities, unusual tree damage, or insect outbreaks to MDNR.

Page: 9

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 9:25:27 AM

 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 9:25:48 AM
Are dead trees removed for "aesthetic" reasons?

 Number: 2 Author: Gulotty Subject: Highlight Date: 4/25/2019 9:57:14 AM

 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 10:17:50 AM
accomplished? Avoided?
Concern is forest health. Consider replacing with: UPPCO will use detection and suppression methods to protect forest health.

 Number: 3 Author: Gulotty Subject: Highlight Date: 4/25/2019 9:59:38 AM

 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 10:07:57 AM
MDNR's forest health specialist in Marquette recently retired. While occurrences described should be reported, MDNR cannot guarantee assistance from forest staff will be available to UPPCO. To obtain assistance UPPCO should follow Section 5.0, "When necessary, resource specialists are either contracted with or hired on a temporary basis to perform specific management functions (e.g., tree planting, reconnaissance update, etc.) on UPPCO property within the project. "

 Number: 4 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 10:56:46 AM

Section 4.6 pest activities, unusual tree damage, or outbreaks observed. Who will be contacted, in what way, on what schedule?

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

- (1) monitoring;
- (2) biological control;
- (3) chemical control; or
- (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 United State Forest Service (USFS) and fire wardens, is responsible for fire detection and suppression activities on the forested lands of Michigan. Since fire detection is the responsibility of MDNR, UPPCO personnel will report and wildfires to them. UPPCO will cooperate with MDNR in the interest of fire prevention, detection, and suppression on company-owned lands. UPPCO conducts and control 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 WMP.

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 (e.g., tree planting, reconnaissance update, etc.) on UPPCO property within the project.

6.0 CONSULTATION EFFORTS

Consultation with 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,

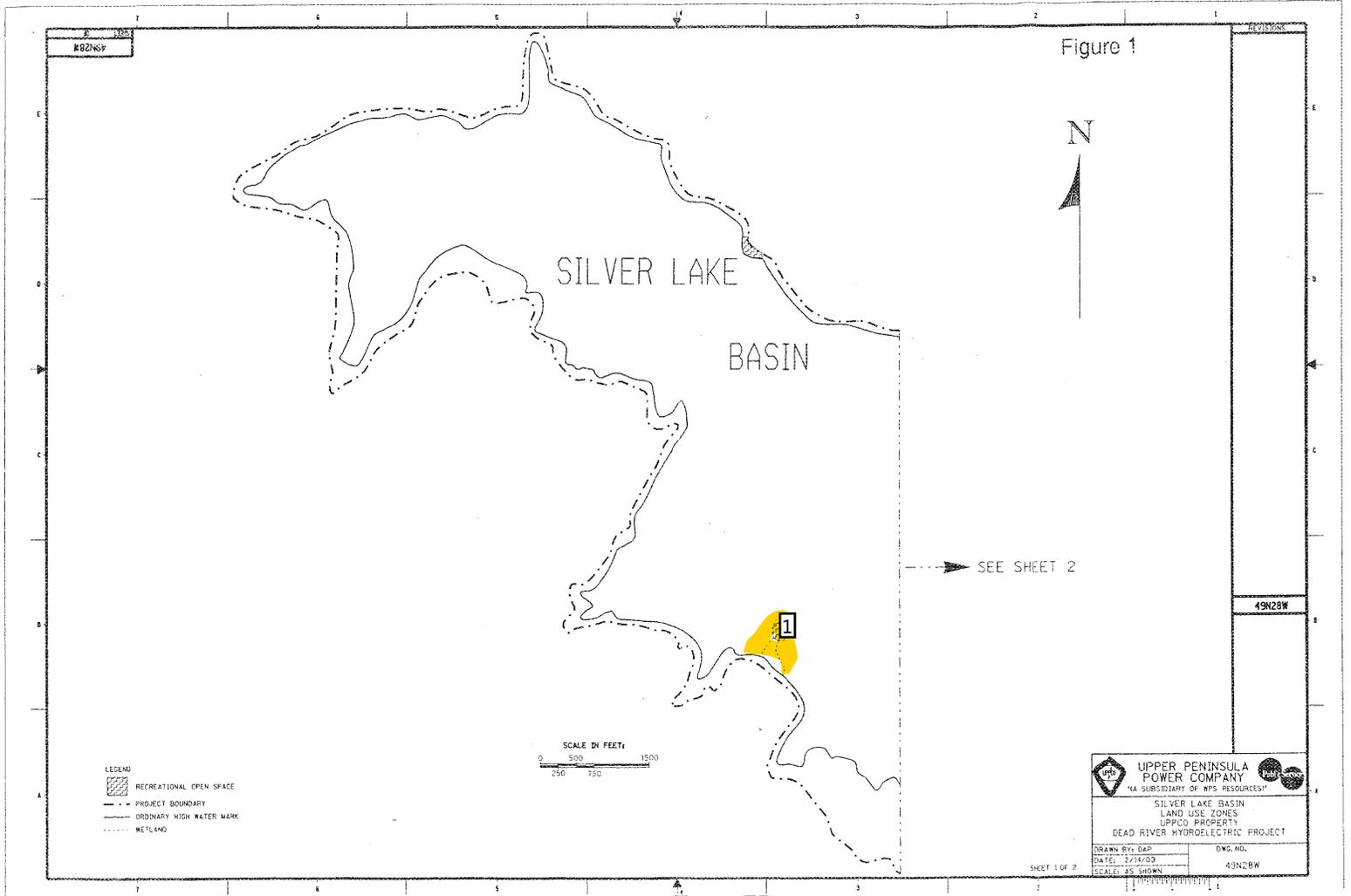
Page: 10

Number: 1 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 10:06:15 AM

If insect and disease control efforts are needed, UPPCO should develop a proposal describing planned management activities for MDNR review and approval.

Number: 2 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 10:47:21 AM

Section 5.0 Implementation should describe planned activities outlined under Section 4.0. The document doesn't make clear what specific activities will be done and when.



Page: 12

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 10:57:48 AM

 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 10:58:35 AM
Is this accessible?

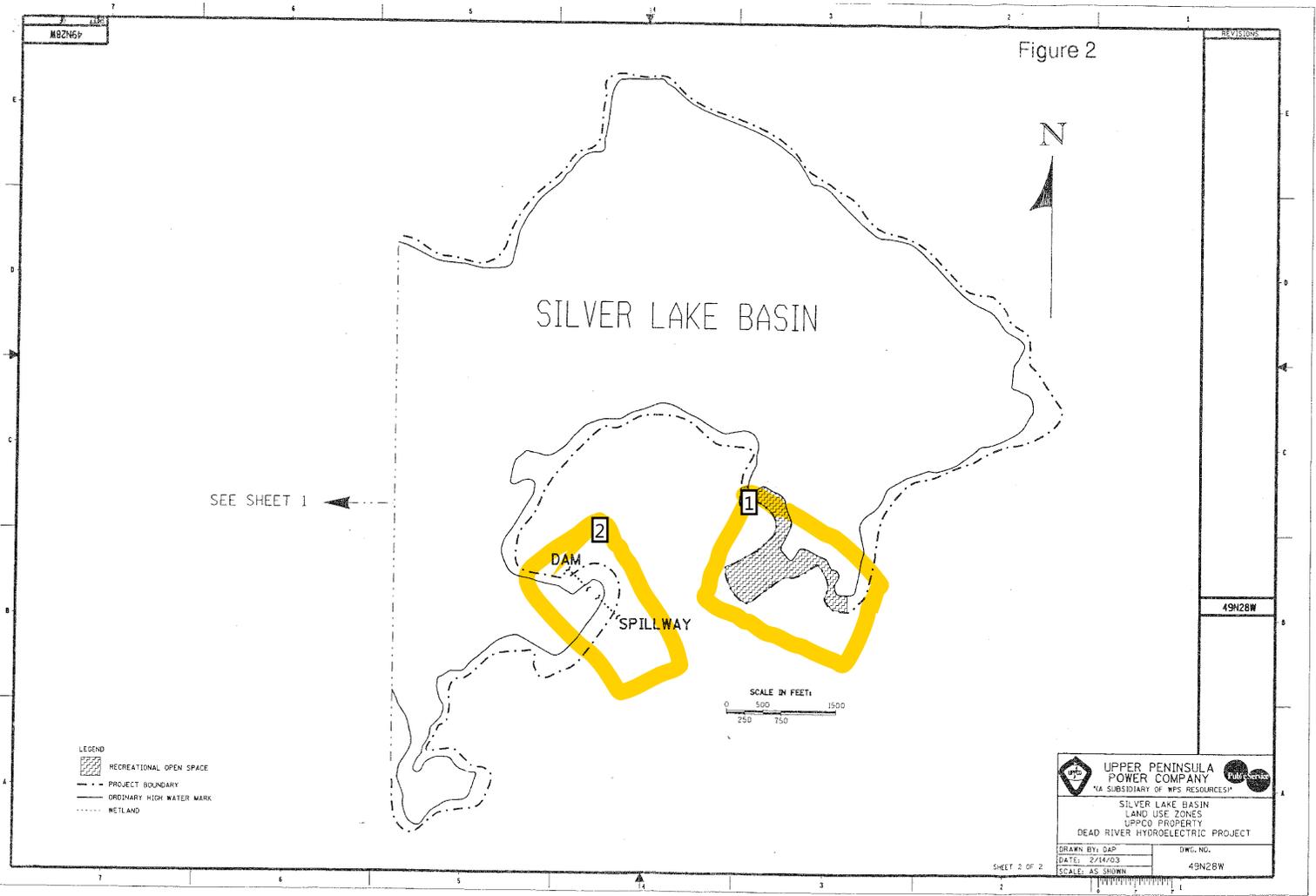


Figure 2

SEE SHEET 1

SILVER LAKE BASIN

DAM
SPILLWAY

SCALE IN FEET
0 250 500 750 1500

UPPER PENINSULA POWER COMPANY <small>(A SUBSIDIARY OF MFS RESOURCES)</small>	
SILVER LAKE BASIN LAND USE ZONES UPPCO PROPERTY DEAD RIVER HYDROELECTRIC PROJECT	
DRAWN BY: DAP DATE: 2/14/03 SCALE: AS SHOWN	DWG. NO. 49N28W

SHEET 2 OF 2

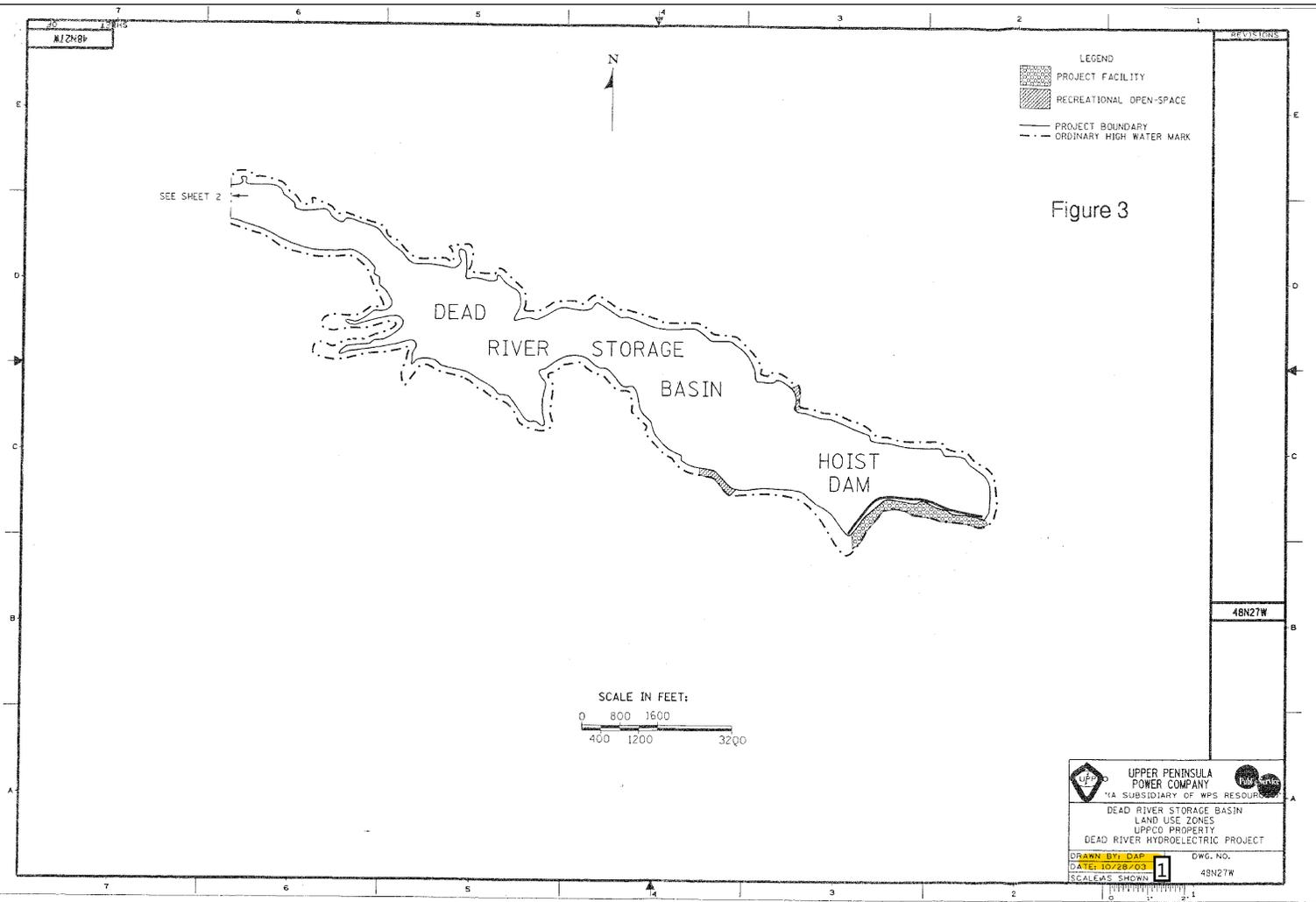
Page: 13

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 11:06:18 AM

Is this accessible? I recall walking the berm, but I cannot recall whether there were signs discouraging this.

 Number: 2 Author: Gulotty Subject: Highlight Date: 4/25/2019 11:06:53 AM

insufficient detail (here and, in general)



Page: 14

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 11:07:46 AM
Insufficient detail

Figure 4

HOIST DAM POWERHOUSE



LEGEND

-  PROJECT FACILITY
-  RECREATIONAL OPEN-SPACE
-  UPPCO PROPERTY
-  PROJECT BOUNDARY
-  ORDINARY HIGH WATER MARK



SHEET 1 OF 2

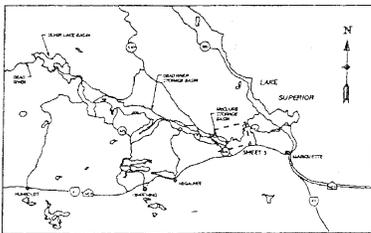
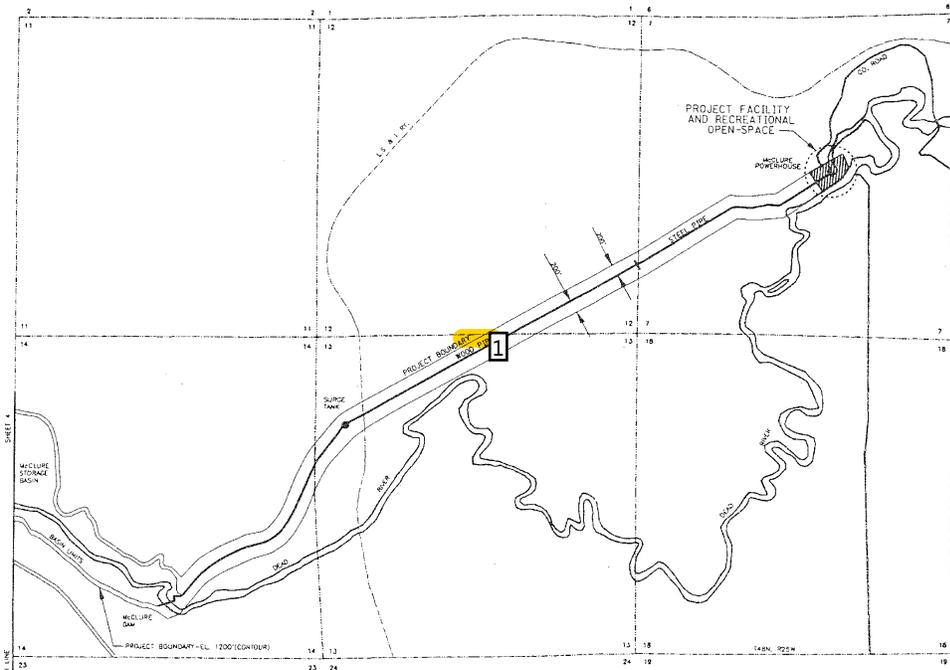
	UPPER PENINSULA POWER COMPANY		
	"A SUBSIDIARY OF WPS RESOURCES"		
MCCURE BASIN LAND USE ZONES UPPCO PROPERTY DEAD RIVER HYDROELECTRIC PROJECT			
DRAWN BY: OAP	1	DWG. NO.	
DATE: 2/25/03		48N26W	
SCALE: AS SHOWN			

48N26W

Page: 15

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 11:08:28 AM
insufficient detail

Figure 5



INSET MAP - PROJECT LOCATION



LEGEND
 LAND BETWEEN PROJECT BOUNDARY AND BASIN UNITS

THIS DRAWING IS A PART OF THE APPLICATION FOR LICENSE MADE BY THE UNDERSIGNED THIS 14th DAY OF APRIL 1984.
 UPPER PENINSULA POWER COMPANY
 BY: *Charles J. [Signature]*

DEAD RIVER HYDROELECTRIC PROJECT FERC PROJECT NO. 1085 AND 1087 UPPER PENINSULA POWER COMPANY		
McCLURE DAM STORAGE RESERVOIR & FACILITIES - EAST END		
 Turner & Wooster Engineers, Inc.	Exhibit D	Sheet #

FERC DRAWING NO. 10855-05

Page: 16

 Number: 1 Author: Gulotty Subject: Highlight Date: 4/25/2019 11:08:30 AM

 Author: Gulotty Subject: Sticky Note Date: 4/25/2019 11:09:30 AM
insufficient detail, out of date, legend/key inconsistent.

Appendix 2: Summary of MDNR Comments on Five-Year Update to Dead River Hydroelectric Project Article 415 Land Use Plan

1. LUP Rev. 0 (§1.0, p.4): Objective

MDNR: “The document should specify measures UPPCO will take [to] ensure continued public access.”

UPPCO: As a company policy UPPCO does not restrict public access to project lands. Therefore, specifying measures UPPCO will take to ensure continued public access is not necessary.

2. LUP Rev. 0 (§1.0, p.4): “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.”

MDNR: “Clarify definition of aesthetic management. The intent of terms ‘aesthetic’ and ‘scenic’ should be made clearer.

The definition in [section] 4.1 specifies reducing slash. Commercial harvest is prohibited. Clarify what is intended by this statement. If slash is produced during tree trimmings for safety or disease control, is it removed in accordance with this section? Is ‘slash’ from other sources (e.g., wind-throw or snow managed? These other sources are part of natural processes and management may be unnecessary or counterproductive unless that debris interferes with other specified uses.

Section 4.1 says selective timber removal may be used to increase the aesthetic value of a forest. How is the aesthetic value of a forest determined? Provide the criteria for selective timber removal to this end.

In Sections 1.0, 3.1, 3.2.1, 3.2.2, 4.1, 4.5, and 4.6 specify what if any actions UPPCO would take based on ‘aesthetic’ values or concerns. If actions are planned outline them in section 5.

Further, the document (4.5) currently states that TSI will be used to ‘improve habitat quality.’ Has this been done? Does UPPCO intend to do this in the future. If so, please state the objectives. Please clarify how this relates to section 4.1.”

UPPCO: UPPCO feels no additional clarifications are required. Aesthetic management is defined in §4.1; however, the section prescribes a reduction in slash visibility, not reduction in slash abundance. Criteria for selective timber removal are included in the section. Management actions are planned on a case-by-case basis, and none are currently planned at this time. Furthermore, all management actions shall be planned in consultation with MDNR as stated elsewhere in the plan.

3. *LUP Rev. 0 (§1.0, p.4): "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."*

MDNR: "This document lacks detail in its description of cooperation and coordination with owners of privately-owned land within the project boundary."

UPPCO: UPPCO believes it is unnecessary and impracticable to specify how cooperation and coordination may be achieved outside of the context of a specific scenario; however, the plan states that MDNR and other interested parties will be consulted when management activities are planned.

4. *LUP Rev. 0 (§1.0, p.4): "This plan includes: (1) maps delineating licensee-owned lands showing management zones;"*

MDNR: "The maps must be replaced. The maps provided are outdated, not at high enough resolution to be useful, and include information that is incorrect. Digital mapping technology has vastly improved over the last 15+ years and should be utilized to delineate management zones. Images derived from digital mapping should be included in a revised Appendix, and files supporting those images should be shared via email.

UPPCO: UPPCO agrees that the plan figures should be updated. Updated figures will be included with the next five-year update to the Land Use Plan, which is due to be submitted to the Commission by May 31, 2024.

5. *LUP Rev. 0 (§4.2, p.7): "An inventory of wetlands found on project lands was completed and is included in the hydroelectric project license application."*

MDNR: "Either include document referenced as attachment or on digital maps."

UPPCO: The statement was included in the plan only to indicate an initial inventory was completed as part of the license application and believes it is unnecessary to provide the Supporting documentation . The documentation may be outdated and any information regarding wetlands (e.g., type, extent, etc.) should first be referenced from current spatial data provided by National Wetlands Inventory (NWI) or other state and federal agencies.

6. *LUP Rev. 0 (§4.2, p.7): "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 ... consult with MDNR when project operations may impact wetlands."*

MDNR: "Consultation on wetlands should include MDEQ/DEGLE and FWS, and address both probable and possible impacts."

UPPCO: UPPCO concurs and the plan has been updated accordingly.

7. *LUP Rev. 0 (§4.6, p.8): "UPPCO will report forest pest activities, unusual tree damage, or insect outbreaks to MDNR."*

MDNR: "Section 4.6 pest activities, unusual tree damage, or outbreaks observed. Who will be contacted, in what way, on what schedule?"

UPPCO: UPPCO agrees and has updated its plan as follows: UPPCO will notify its primary contact at MDNR regarding any new observations of pest activities, unusual tree damage, or insect outbreaks via email at the time such observations are made.

8. *LUP Rev. 0 (§4.6, p.9): "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."*

MDNR: If insect and disease control efforts are needed, UPPCO should develop a proposal describing planned management activities for MDNR review and approval.

UPPCO: UPPCO will consult with MDNR when it suspects that control measures may be warranted to determine what measures would be appropriate to implement in a particular scenario.

9. *LUP Rev. 0 (§5.0, p.9): Implementation*

MDNR: Section 5.0 [Implementation] should describe planned activities outlined under Section 4.0 [Future Management Practices]. The document doesn't make clear what specific activities will be done and when.

UPPCO: It is not the intent of §5.0 to clarify what specific activities will be done and when; that is the function of other sections of the document. §5.0 merely states the means by which UPPCO will implement land use management activities, which are defined elsewhere in the document under pertinent headings.

10. *LUP Rev. 0 (Figure 2, p.13): Silver Lake Basin Land Use Zones (Sheet 2)*

MDNR: "[I]nsufficient detail (here and in general)." [comment appears to refer to the Main Dam Spillway]

UPPCO: No land use management zones are designated in this area of the project. Further detail adds no benefit to the plan.

11. *LUP Rev. 0 (Figure 2, p.13): Silver Lake Basin Land Use Zones (Sheet 2)*

MDNR: "Is this accessible? I recall walking the berm, but I cannot recall whether there were signs discouraging this." [comment appears to refer to a designated recreational open space downstream of Dam No. 2]

UPPCO: The area is accessible to foot traffic; however, vehicles, ATVs, and snowmobiles are prohibited because they have caused damage to the embankment on several occasions and pose a hazard to dam safety. Signage is posted, pursuant to the Public Safety Plan, to dissuade their use. As defined by the plan, "recreational open space areas provide access to or near the water's edge," and "activities that are permitted in

this management zone include ... hiking, shore fishing, and sightseeing.” The prohibition of vehicular traffic in this zone remains consistent with the plan.

12.LUP Rev. 0 (Figure 3, p.14): Dead River Storage Basin Land Use Zones

MDNR: “Insufficient detail.” [author and date of drawing are highlighted]

UPPCO: The figure will be updated as indicated above, but UPPCO believes providing further detail adds no benefit to the plan.

13.LUP Rev. 0 (Figure 4, p.15): McClure Basin Land Use Zones

MDNR: “Insufficient detail.” [author and date of drawing are highlighted]

UPPCO: The figure will be updated as indicated above, but UPPCO believes providing further detail adds no benefit to the plan.

14.LUP Rev. 0 (Figure 5, p.16): McClure Basin Land Use Zones

MDNR: “Insufficient detail, out of date, legend/key inconsistent.” [author and date of drawing are highlighted]

UPPCO: The figure will be updated and corrected as indicated above, but UPPCO believes providing further detail adds no benefit to the plan.

Document Content(s)

20190531 DRV Land Use Plan Update.PDF.....1-1

20190531 DRV Land Use Plan Update App 1.PDF.....2-17

20190531 DRV Land Use Plan Update App 2.PDF.....18-42