



Upper Peninsula Power Company

700 North Adams Street  
P.O. Box 19001  
Green Bay, WI 54307-9001  
www.uppco.com

July 9, 2008

FERC Project No. 10855

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

Dear Secretary Bose:

Silver Lake Reservoir Rebuild-Revegetation Plan

According to the Notice of Availability of Environmental Assessment dated June 3, 2008, Upper Peninsula Power Company (UPPCO) is required to consult with the Michigan Department of Natural Resources (MDNR) and the U.S. Fish and Wildlife Service (FWS) regarding a Revegetation Plan for the rebuild of Silver Lake Reservoir.

UPPCO provided a draft plan including measures it believed to be appropriate to the MDNR and FWS for comment. The MDNR responded in support of the plan and the FWS indicated they did not have any comments on the plan (See Documentation of Consultation Appendix 1).

The final plan is enclosed in Appendix 2.

Should you have any questions please do not hesitate to contact Shawn Puzen at (920) 433-1094.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Jensky".

Terry P. Jensky  
Vice President - Energy Supply Operations  
for Wisconsin Public Service Corporation  
Telephone: (920) 433-2900

syx

Enc.

cc: Mr. Ben Trotter, WPSC - REG  
Mr. Pat Fulsher, UPPCO - UISC  
Mr. Robert Meyers, UPPCO - UISC  
Ms. Christie Deloria, FWS  
Ms. Joan Johaneck, WPSC - D2

Mr. Jeff Krueger, WPSC - REG  
Mr. Gil Snyder, WPSC - D2  
Ms. Jessica Mistak, MDNR  
Ms. Peggy Harding, FERC - CHI

# Appendix 1

## Documentation of Consultation

Appendix 1  
Documentation of Consultation

Silver Lake Rebuild Revegetation Plan

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**Puzen, Shawn C**

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**From:** Jessica Mistak [mistakjl@michigan.gov]  
**Sent:** Monday, June 30, 2008 8:34 AM  
**To:** Puzen, Shawn C  
**Cc:** Christie\_Deloria@fws.gov; Freiburger, Chris  
**Subject:** Re: Silver Lake Rebuild Revegetation Plan

Hi Shawn,  
The DNR has reviewed your Silver Lake Rebuild Revegetation Plan and we support the plan as written.  
Jessica

Jessica Mistak, Senior Fisheries Biologist  
DNR Marquette Fisheries Station  
484 Cherry Creek Rd  
Marquette, MI 49855  
906-249-1611 ext. 308  
FAX 906-249-3190

>>> "Puzen, Shawn C" <SCPuzen@integrysgroup.com> 06/25/2008 1:45:31 PM >>>

Christie and Jessica-  
Attached is a draft revegetation plan for your review and comment. This plan is really a re-organization of the planting specifications used on the Dead River Recovery Effort.

Please provide any comment by the end of day July 8, 2008.

Please let me know if you have any questions....

Thanks,  
<<Revegetation Plan.doc>>

Shawn C. Puzen  
Environmental Consultant  
Integrys Business Support, LLC  
(920) 433-1094  
scpuzen@integrysgroup.com  
PLEASE NOTE EMAIL ADDRESS CHANGE ABOVE

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

This email and any of its attachments may contain proprietary information, which is privileged, confidential, or

7/8/2008

Appendix 1  
Documentation of Consultation

**Puzen, Shawn C**

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**From:** Christie\_Deloria@fws.gov  
**Sent:** Tuesday, July 08, 2008 8:06 AM  
**To:** Puzen, Shawn C  
**Cc:** mistakjl@michigan.gov  
**Subject:** No comments on revegetation plan for Silver Lake rebuild

Hello Shawn -

The Service doesn't have any comments on the revegetation plan for the Silver lake rebuild project.

Thanks for checking.

Christie

Christie Deloria-Sheffield  
Fish & Wildlife Biologist

U.S. Fish & Wildlife Service  
Upper Peninsula Sub-Office  
Ecological Services  
3090 Wright Street  
Marquette, MI 49855  
(906) 226-1240 Telephone  
(906) 226-3632 FAX  
(906) 360-1811 Mobile

# Appendix 2

## Silver Lake Revegetation Plan

Appendix 2  
Silver Lake Rebuild Revegetation Plan

# **SILVER LAKE REBUILD**

# **REVEGETATION PLAN**

Appendix 2  
Silver Lake Rebuild Revegetation Plan

## PLANTING GENERAL

### SCOPE AND EXTENT OF WORK

Vegetation shall be installed on this project using a variety of methods in different locations as specified. Methods are:

- A. Dormant seeding and mulching,
- B. Growing season seeding and mulching,
- C. Bare root tree seedling planting, or
- D. Containerized tree seedling planting,

Locations are:

- 1. Seeding in all areas disturbed by construction that were not former aggregate roads.
- 2. Tree planting in all areas that were previously forested and do not need to be maintained as grassy areas.

### SUBMITTALS

- A. Contractor shall provide planting schedule (start and completion dates).
- B. The Contractor shall furnish a copy of any tickets, tags, or manifests for purchased and/or harvested plant materials.

### MATERIALS

#### A. Vegetation

Vegetation shall be the size, genus, species and variety as shown in Attachment 1.

The Contractor may use other plant species than those listed upon approval by the Owner. Any plant species substitutions shall be native and shall still be installed per the plans and specifications unless otherwise authorized by the Owner.

#### B. Straw Mulch

Long straw or hay to be used as mulching material on all vegetation areas shall consist of dry straw or hay, free of noxious weeds ("Certified Weed Free"). Straw mulch shall be reasonably bright in color and shall not be musty, moldy, caked, decayed, or dusty.

#### C. Soil Amendments

- (1) Compost – Compost as required shall be compost and/or topsoil as specified below or organic material from the bed of Silver Lake as shown in the plans.

- a. Compost:

- i. Compost shall be composed of 100 percent, organic material.
- ii. Compost shall be of a sufficient age to limit introduction of invasive or non-native plants.

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- b. Topsoil - The topsoil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. Topsoil shall be free of noxious weeds.
  - i. Should the pH fall out of the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

- (2) Mycorrhizal spores - Mycorrhizal granular inoculums that includes three species: Glomus intraradices, Glomus aggregatum and Glomus mosseae. The inoculums must contain a minimum of 20k propagules per pound (MycApply or approved other).

**D. Water**

Water shall contain no toxic elements that could be harmful to plant growth.

**MATERIALS SOURCES**

Local (Michigan Upper Peninsula or northern Wisconsin) suppliers are preferred.

**HANDLING**

All plant material shall be handled with care to limit stress and damage. Damaged seed or plants shall not be used.

**ENVIRONMENTAL REQUIREMENTS**

**A. Planting Schedule**

Bare root plants, containerized plants, and seed shall be planted during their individual dormant seasons or growing seasons or as advised by a commercial plant supplier.

**B. Installation**

All vegetation shall be installed per the recommendations shown on the individual labels and/or suppliers' 'tags, as directed in the plans, or as advised by a commercial plant supplier.

**C. Straw mulching**

Straw mulch shall be installed on all vegetation installation as specified.

**D. Water**

Water all of the vegetation after installation. Vegetation shall continuously be watered as needed during project construction.

**E. Soil amendment**

Contractor shall apply a mycorrhizal spore material at a rate of 18/lbs per acre to all seeding locations. The mycorrhizal product shall be harrowed, disced or otherwise mixed into the top six inches of soil.

Contractor shall also apply a 6" layer of compost or topsoil and harrow, disc, or rototill the area to mix the compost, soil, and mycorrhizal together.



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### **PERFORMANCE REQUIREMENTS**

All vegetation shall be in a satisfactory and acceptable condition when the Contractor applies for payment.

The Contractor shall be responsible for the replacement of non-living vegetation if the survivability rates are not met at the end of the 1 year warranty period. Vegetation replaced within construction warranty period shall be under warranty for an additional year.

### **MAINTENANCE DURING CONSTRUCTION**

Maintenance shall begin immediately after each vegetation method is completed and continue throughout construction. Upon completion of the construction the 1 year warranty period shall begin unless otherwise specified.

Maintenance consists of spraying for insects and diseases, weeding, watering, and inspecting to see that the vegetation is healthy and performing adequately in protecting the project surfaces. The Contractor shall be responsible for any permits related to pesticides.

Any vegetation repairs shall be performed to the same specifications as the original installation.

### **DORMANT AND GROWING SEASON SEEDING**

#### **SCOPE AND EXTENT OF WORK**

Work shall include the procurement, delivery, storage, handling, installation, and maintenance of dormant seeding. This shall also include the seeding of a cover crop of weed-free annual oats, or annual rye.

#### **DEFINITIONS**

Dormant Season: Time of year when plants are not actively growing. For dormant seeding this is between October 20 and November 15 or as long as the site is accessible but not past April 15.

Growing Season: As soon as the site is accessible in the spring until October 19.

#### **DELIVERY AND STORAGE**

##### **A. Delivery**

Seed and seed mixtures shall be transported in an enclosed cool and dry trailer.

##### **B. Storage**

Store and protect seed and seed mixtures not installed on day of arrival at the Project site. Outside storage shall be shaded and dry. Bags shall be stored off the ground at all times.

#### **INSTALLATION**

The Contractor shall not sow seed or apply straw mulch in windy conditions that may affect application rates or surface coverage.

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Silver Lake Rebuild Revegetation Plan

Seed shall be installed at the rate shown in the plans or as advised by a commercial plant supplier. If plugs are used as an alternate to seeding on this project the spacing of plugs shall be per the supplier's recommendation.

For areas with erosion control fabric, the fabric shall be placed last, on top of the completed seeding operation. Seed shall not be sown on top of installed fabric.

The seeding operation shall occur in the following sequence:

- A. The Contractor shall apply compost or topsoil in a 6" layer over the surface of the seeding area. In wetlands the Contractor shall apply wetland donor soil in a 6" layer over the subgrade. Equipment access shall be limited once the compost or wetland donor soil is applied.
- B. The Contractor shall hand apply the mycorrhizal granular inoculum on top of the compost/topsoil.
- C. The contractor shall harrow, disc, rototill, or use other mechanical methods to mix the compost/topsoil and mycorrhizal inoculum with the top 6" of soil.
- D. The Contractor shall broadcast the seed at the rates shown in the plans or per the supplier's recommendations.
- E. Contractor shall use a hand rake or mechanical means to establish good seed/soil contact.
- F. Certified Weed Free straw mulch shall be broadcast at a rate sufficient to provide 70%-80% cover of the surface of the seeding area.

#### **PERFORMANCE REQUIREMENTS**

Seeding shall provide 70 percent coverage with no bare spots larger than 1 foot by 1 foot.

#### **BARE ROOT AND CONTAINERIZED PLANTING**

##### **SCOPE AND EXTENT OF WORK**

Work shall include the procurement, delivery, storage, handling, installation, and maintenance of bare root trees and containerized tree seedlings on all areas that were deforested as part of the construction and do not need to be mowed as part of normal operation of the facility.

##### **DEFINITIONS**

Dormant Season: Time of year when plants are not actively growing. For bare root planting this is between October 20 and November 15 or as long as the site is accessible but not past April 15.

Growing Season: Time of year when plants are actively growing. For containerized tree seedling planting this is between September 1 and October 20. If necessary spring plantings shall be conducted between May 1 and May 31.

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## **MATERIALS**

### **Plants**

Plants shall be bare root or containerized tree seedlings of the Species contained in Attachment 2. All plants shall comply with the recommendations and requirements of ANSI Z60.1, "American Standard for Nursery Stock". Plants shall be healthy, vigorous stock, grown in a recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sunscald, injuries, abrasions, or disfigurement.

## **DELIVERY AND HANDLING**

Tree delivery shall be the same day as planting. No plants shall be stored at the site without permission of the Owner's Representative. Plants shall be carefully loaded and unloaded so as not to damage branching or root mass. Dropping of material will not be allowed. Plants in full leaf shall be thoroughly wetted down and completely covered with a wet tarp during transportation. All plant roots must be kept in a moist condition.

## **STORAGE**

Remove plants from boxes or bags.

Outside storage locations shall be continually shaded and protected from wind. Do not allow plants to dry out. Store plants in a cool wet place with roots under wet mulch, wet straw, or wet soil. Tops should remain dry, however **DO NOT ALLOW WHOLE PLANT TO DRY OUT**. Also protect from freezing. Temperature shall be maintained between 34-38 degrees F, relative humidity shall be kept above 85%, and there shall be good air circulation around the plants.

If the plants have broken dormancy during transit they shall not be stored for more than 2 days.

## **INSTALLATION**

### **A. Schedule**

Containerized tree seedling planting shall occur in the growing season. Bare root shrub plantings shall occur in the dormant season.

Dormant seeding shall occur prior to tree and shrub installation and any disturbance to the seeding resulting from the plantings shall be repaired.

### **B. Spacing**

The trees and shrubs shall be installed by hand in a 10 foot by 10 foot grid or as advised by a commercial plant supplier, with species mixed randomly.

### **C. Methods**

Hand or mechanically plant all trees. Planting shall occur such that any roots can hang downward and not be curled and the top of the plant, including any horizontal growth, is above the ground. Assure root to soil contact. Leave the plant in a vertical position.

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If plants are installed in late fall and winter the plant shall be installed slightly deeper than they were planted at the nursery.

Installation instructions shall be as advised by a commercial plant supplier.

**PERFORMANCE REQUIREMENTS**

Warranty Period for bare root shrubs and containerized tree seedlings shall conclude the end of the first full growing season. A full growing season is defined as the beginning of May through the end of October of the same year. If installation occurs after June 15, the warranty period shall be extended through the end of October of the next year so as to achieve a full growing season.

Bare root plants and containerized tree seedlings survival rate shall be as follows (in percent) based on inspections at the end of the one year construction warranty. The survivability rate will be determined using three (3) 10 foot by 10 foot random plots established at the end of the construction.

Trees: 95 percent survival (75 percent of the plant showing sprouting and/or leaf production).

**MONITORING**

All areas disturbed as part of the construction will be monitored for revegetation success annually beginning after one full growing season until 70% coverage is obtained for seeding and 95% survival is obtained for reforestation. The complete performance requirements for seeding and planting are further outlined above.

# Attachment 1

## Upland Seed Mix:

### MDOT HIGHWAY ROADSIDE MIXTURE

LOT # L152-08-156

DATE TESTED: 2/08

CONTAINS	PURE SEED	GERM	ORIGIN
PERENNIAL RYEGRASS*	49.10%	90.00%	OREGON
CREEPING RED FESCUE*	34.35%	85.00%	CAN/OR
KENTUCKY BLUEGRASS*	13.68%	76.00%	OR/WA
OTHER CROP SEEDS:	0.20%		
INERT MATTER:	2.52%		
WEED SEEDS:	0.15%		

NOXIOUS WEED SEEDS: NONE FOUND

\* VARIETY NOT STATED

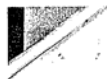
NET WT. 50 LBS.  
AMS: 722

CSI/Geoturf, Inc.  
1500 Alloy Parkway  
Highland, MI 48356

Seller makes no warranty, either expressed or implied, as to merchantability or fitness for a particular purpose. Seller's sole warranty is that seed sold conforms to label on the container, within recognized tolerances.

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Silver Lake Rebuild Revegetation Plan

## Wetland Seed Mix:



**CSI / Geoturf, Inc.**

1500 Alloy Parkway PO Box 668  
Highland, MI 48357

### Streambank/Oxbow Lake/Wetland Seed Mix

ITEM	BOTANICAL NAME	PURITY	GERM	HARD	DORM	ORIGI
Red Osier Dogwood	<i>Cornus stolonifera (C.sericea)</i>	12.67%	11%			83% PA
Blue Flag	<i>Iris versicolor</i>	8.25%	80%			3% PA
American Mannagrass	<i>Glyceria grandis</i>	4.62%	79%			6% PA
Virginia Wild Rye	<i>Elymus virginicus</i>	4.43%	95%			PA
Swamp Milkweed	<i>Asclepias incarnata</i>	3.91%	54%			32% PA
Bebb's Sedge	<i>Carex bebbii</i>	3.77%	37%			50% WI
Giant Bur Reed	<i>Sparganium eurycarpum</i>	3.71%	1%			92% PA
New England Aster	<i>Aster novae-angliae</i>	3.69%	87%			CO
Spotted Joe Pye Weed	<i>Eupatorium maculatum</i>	3.69%	1%			72% PA
Water Plantain	<i>Alisma plantago-aquatica</i>	3.59%	2%			86% CN
Fowl Mannagrass	<i>Glyceria striata</i>	3.58%	93%			PA
Blue Vervain	<i>Verbena hastata</i>	3.52%	21%			60% PA
Fox Sedge	<i>Carex vulpinoidea</i>	3.21%	88%			PA
Canada Wild Rye	<i>Elymus canadensis</i>	2.82%	96%			IN
Soft Rush	<i>Juncus effusus</i>	2.69%	3%			87% PA
Flat Topped White Aster	<i>Aster umbellatus (Doellingeria)</i>	2.63%	8%			74% PA
Awl Sedge	<i>Carex stipata</i>	2.58%	10%			57% PA
Bristlebract Sedge	<i>Carex tribuloides</i>	2.14%	68%			24% PA
Canada Bluejoint	<i>Calamagrostis canadensis</i>	2.02%	71%			PA
Blunt Broom Sedge	<i>Carex scoparia</i>	1.70%	43%			49% PA
Nodding Sedge (gynandra)	<i>Carex gynandra</i>	1.61%	91%			3% PA
Soft Stem Bulrush	<i>Scirpus validus</i>	1.59%	4%			81% MN
Green Bulrush	<i>Scirpus atrovirens</i>	1.58%	4%			72% PA
Fowl Bluegrass	<i>Poa palustris</i>	1.32%	52%			Canac
Boneset	<i>Eupatorium perfoliatum</i>	0.71%	7%			65% PA

OTHER CROP: 0.09%  
INERT MATTER: 13.78%  
WEED SEED: 0.10%

NET WEIGHT: 50 LB  
LOT NUMBER: CSIG00149  
DATE TESTED: December 2004

AMS 1039

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Tree Species:

Tamarack (*Larix Laricina*)

Balsam Fir (*Abies balsamea*)

White Spruce (*Picea glauca*)

Document Content(s)

20080709 FERC Revegetation Plan.PDF.....1-15