



**Nekoosa Papers Inc.**  
 a subsidiary of  
 Georgia-Pacific Corporation

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FEDERAL ENERGY  
 REGULATORY COMMISSION

Environmental Affairs

September 10, 1997

Ms. Janet M. Smith  
 Field Supervisor  
 United States Department of the Interior  
 Green Bay Field Office  
 1015 Challenger Court  
 Green Bay, WI 54311-8331

Mr. Robert Martini  
 FERC Relicensing Manager  
 Department of Natural Resources  
 P. O. Box 818  
 Rhinelander, WI 54501

Dear Ms. Smith and Mr. Martini:

Subject: Nekoosa Papers Inc. *024-023-022*  
 FERC Projects 2255, 2291, and 2292  
 Centralia, Port Edwards, and Nekoosa Projects  
 Purple Loosestrife Monitoring Plan

Attached is a report for purple loosestrife monitoring as required by Article 408 for projects 2255 and 2291, and by Article 407 for project 2292. A single report for the three projects has been prepared.

The survey was performed substantially as described in the plan submitted to the FERC Secretary on January 13, 1997, and as approved by FERC on July 16, 1997. The survey was performed between July 30 and August 8 during blooming of the plant.

The one exception of the actual survey to the plan was that NPI contracted Dr. Robert W. Freckmann from the University of Wisconsin-Stevens Point to conduct the survey as opposed to using trained NPI employees. Small colonies of plants were removed by Dr. Freckmann where feasible.

If there are any questions, please feel free to contact me at (715) 886-7481.

Sincerely,

Robert W. Gause  
 Environmental Manager

RWG:kd

cc: Federal Energy Regulatory Commission, Chicago Regional Office, 230 South Dearborn Street, Room 3130, Chicago, IL 60604

Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, DC 20426

Port Edwards, Wisconsin 54469-1492 (715) 886-7481 Fax: (715) 886-7406

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# PURPLE LOOSETRIFE MONITORING SURVEY FOR 1997

prepared September 4, 1997 for

Nekoosa Papers, Inc.  
a subsidiary of Georgia-Pacific Corporation

by

Flark Associates, Inc.  
8221 100th Street South  
Wisconsin Rapids, Wisconsin 54494

Principal Investigator: Robert W. Freckmann, Ph.D.  
Professor of Biology and Curator of Vascular Plants  
University of Wisconsin - Stevens Point

## METHODS

Flark Associates, Inc. conducted a survey for the occurrence of purple loosestrife, *Lythrum salicaria* L., within the project boundary lands as designated on the Nekoosa Papers, Inc., Project Boundary Location Drawings Numbers DC 305, DC 306, DC 307, DJ 2894, DJ 2740, and DN 2341. The principal investigator covered on foot the west side of the Wisconsin River from Wisconsin Rapids through to the boundary area south of Nekoosa, as well as most of the east side of the River and islands accessible by bridges on July 30, July 31, August 1, August 7, and August 8, 1997. He made general notes regarding the vegetation, took black and white or color photographs at various locations to document either the general character of the vegetation in areas presently free of purple loosestrife for future comparisons, or to show representative areas of current purple loosestrife populations. Readily accessible small isolated plants of purple loosestrife were uprooted. A survey of the remaining areas was conducted by boat on August 9, 1997. The locations of the purple loosestrife plants are marked on the Project Boundary Location Drawings and on a reduced photocopy of these drawings with open circles if plants were removed, or with solid circles if the plants were left in place. Each separated circle designates one plant; contiguous circles indicate a larger population where plants could not be marked individually on drawings of this scale.

## DESCRIPTIONS OF THE VEGETATION AND PURPLE LOOSESTRIFE POPULATIONS:

Much of the land within the project boundary shown on drawing DC-305 is residential. No purple loosestrife is growing on these residential properties. The west shore of the Wisconsin River north of the Riverview Expressway is mowed lawns in a park with river birch and cottonwood trees. The shore is dominated by bluejoint, reed canary-grass, various forbs, and some young glossy-leaved buckthorn. Some isolated

purple loosestrife plants were removed. Pete Rogers island is covered with river birch, silver maple, green ash, etc. Belle Island is residential, with some mowed lawns, oaks, river birch, white pine, etc. Another unnamed island is wooded with white and red pines. No purple loosestrife was seen on any of these islands.

The park south of the Riverview Expressway consists of mowed lawns almost to the edge of the river under scattered river birch, cottonwood, silver maple, black willow, etc. A few isolated purple loosestrife plants were found and removed. Witter Island is heavily wooded and apparently free of purple loosestrife.

Most of the land on the east side of the River on drawing DC-306 is wooded. The residential area which lies between the River and Riverwood Lane consists of scattered trees, mowed lawn, and a planted prairie at one residence; the east side of the street is more densely wooded. No purple loosestrife was found here. A sandy field, sumac thickets, and a woodland of white pine, river birch, basswood, abundant glossy-leaved buckthorn and European buckthorn, etc. lies on both sides of a small creek which flows into the River. Only one purple loosestrife plant was found at the confluence of the creek and the River, it was removed.

The east side of the Wisconsin River to the south consists of residential properties and the Bulls Eye Golf Course. The entire bank as well as Garrison Island and Edwards Island are wooded with river birch, silver and red maples, cottonwood, oaks, white pine, etc., and free of purple loosestrife.

Ben Hansen Park extends along the west side of the Wisconsin River. It is similar to the park land to the north, except that a moderate concentration of purple loosestrife lines part of the bank opposite Garrison and Edwards Islands. One isolated floating island of purple loosestrife was pulled from the water at the Boles Creek boatlanding. The remainder of the west bank between Boles Creek and the Centralia Dam consists of residences, mowed areas, and wooded banks free of purple loosestrife.

The bicycle - hiking path area shown within the project boundary on drawing DC-307 is wooded with aspens, red oak, elm, black cherry, winterberry, American hazelnut, black willow, etc. The semi-open wet areas have abundant royal fern, ostrich fern, bracken fern, and lady fern, but no purple loosestrife.

The entire east bank of the Wisconsin River shown on drawing DJ-2894 is heavily wooded with much exposed bedrock on the shoreline and small rock outcroppings in the River. Narrow-leaved cattail, stinging nettle, and reed canary-grass are abundant in places, but no purple loosestrife was seen. The west bank north of the dam is also generally wooded with river birch, red maple, silver maple, black locust, sumac, basswood, etc., and no purple loosestrife. The island between the dam and the Port Edwards Hydroelectric plants also has a wooded shoreline and no purple loosestrife. Purple loosestrife, however, is very abundant on the Centralia Dam headwater at the north end of the island, and may be a source of the small floating clumps of purple loosestrife

seen occasionally downstream. Purple loosestrife is also common along the west bank of the hydroelectric plant headwaters.

The south bank and island in the river shown on drawing DN-2740 is wooded with river birch, cottonwood, silver maple, green ash, etc. Some small concentrations of purple loosestrife occur on three of the small islands and on a point of land west of Harvey Creek. The north bank along the Nekoosa paper mill is also wooded with cottonwood, river birch, silver maple, green ash, hackberry, box elder, etc., and has some scattered small populations of purple loosestrife, some of which were removed. Some small sloughs lined with cattails, sedges, burreed, etc. connect to the River along the north bank, but are free of purple loosestrife. Riverside Park borders the west bank and consists mostly of mowed lawns with scattered trees, including some large oaks. Two isolated purple loosestrife plants were removed from near the mouth of Mocassin Creek.

The east side of the Wisconsin River included on drawing DN-2341 is wooded with silver maple, river birch, green ash, oaks, etc. and free of purple loosestrife. The west bank, north of the hydro headwater and especially north of the highway 73 bridge has a large population of purple loosestrife. The remainder of the west bank extending south through Nekoosa is semi-wooded with silver maple, river birch, box elder, paper birch, white oak, American elm, black walnut, black locust, etc. No purple loosestrife was seen along this part of the river.

#### CONCLUSIONS:

In general, purple loosestrife is not as abundant along this part of the Wisconsin River as it is in several other areas in central Wisconsin. The banks of the River covered with fairly dense native vegetation, and especially those parts heavily shaded by trees, are free of loosestrife, and are not as likely to be invaded as are sunny, open areas with patches of bare ground. It is also notable that purple loosestrife is not especially evident near boatlandings, suggesting that boats and trailers bringing in seeds on mud might not be a major source of the purple loosestrife here. Where purple loosestrife is well-established its removal may be difficult, because the disturbance of the vegetation by the process of removing or treating the loosestrife with herbicide may create the type of open conditions which favor its reestablishment.



Fig. 1. West side of Witter Island. No purple loosestrife.



Fig. 2. Northwest edge of Witter Island. No purple loosestrife.



Fig. 3. West side of Belle Island. No purple loosestrife.



Fig. 4. West side of Wisconsin River in park, looking toward Edwards Island. One purple loosestrife plant in foreground.



Fig. 5. North end of Garrison Island from west bank of Wisconsin River. No purple loosestrife; purple flower in foreground is vervain.

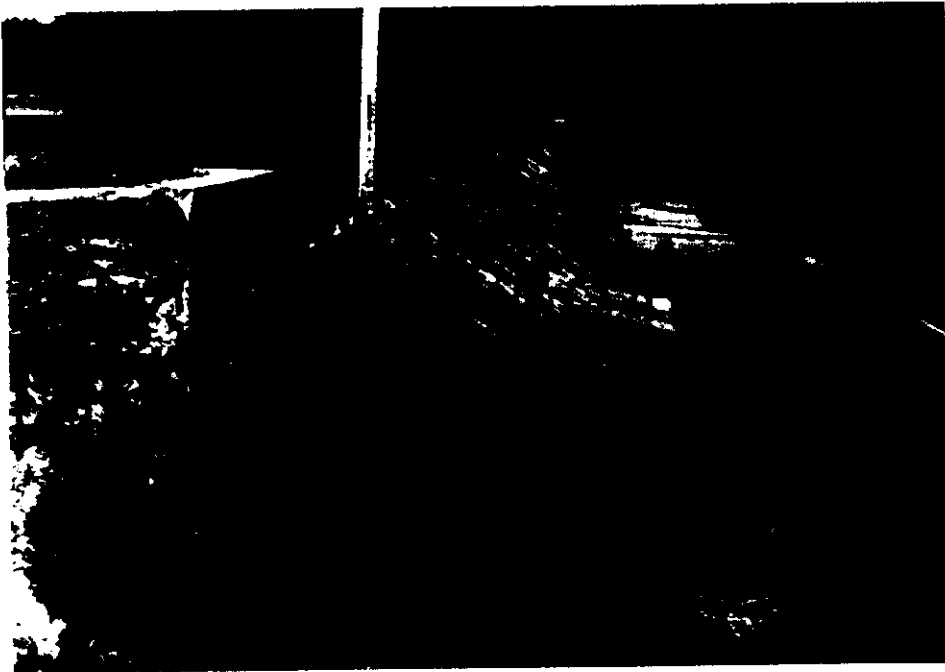


Fig. 6. Looking east across Centralia Dam, showing abundant purple loosestrife.

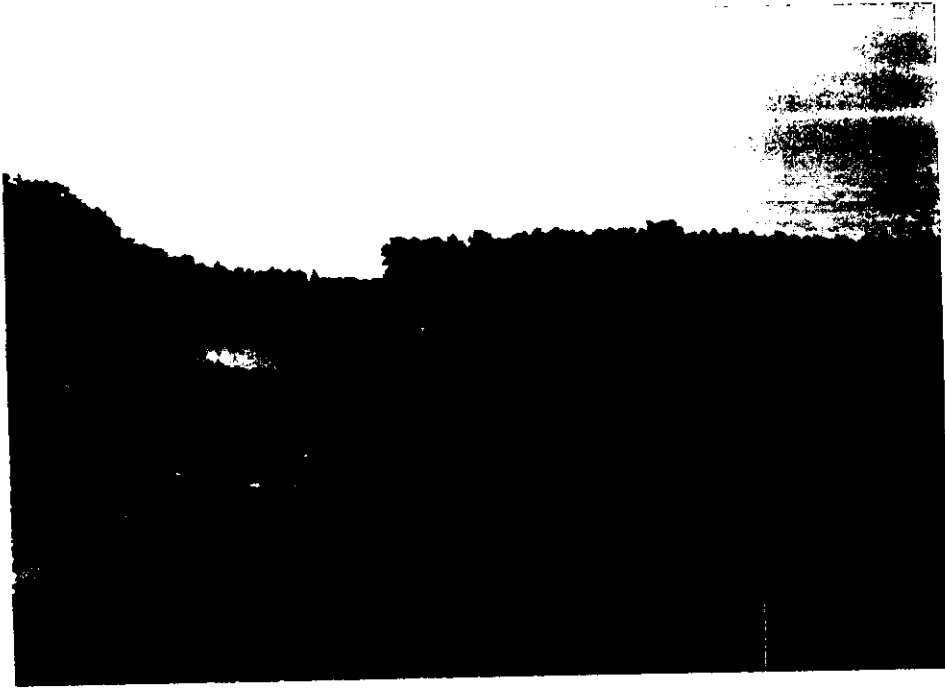


Fig. 7. Looking north along west bank of Wisconsin River from Centralia Dam. No purple loosestrife.



Fig. 8. Looking east at Headwater dam, north of Port Edwards Hydroelectric Plant. No purple loosestrife on opposite shore.





Fig. 9. Looking north, from same point as figure 8. No purple loosestrife.



Figure 10. Port Edwards Hydro Headwater, looking northwest.

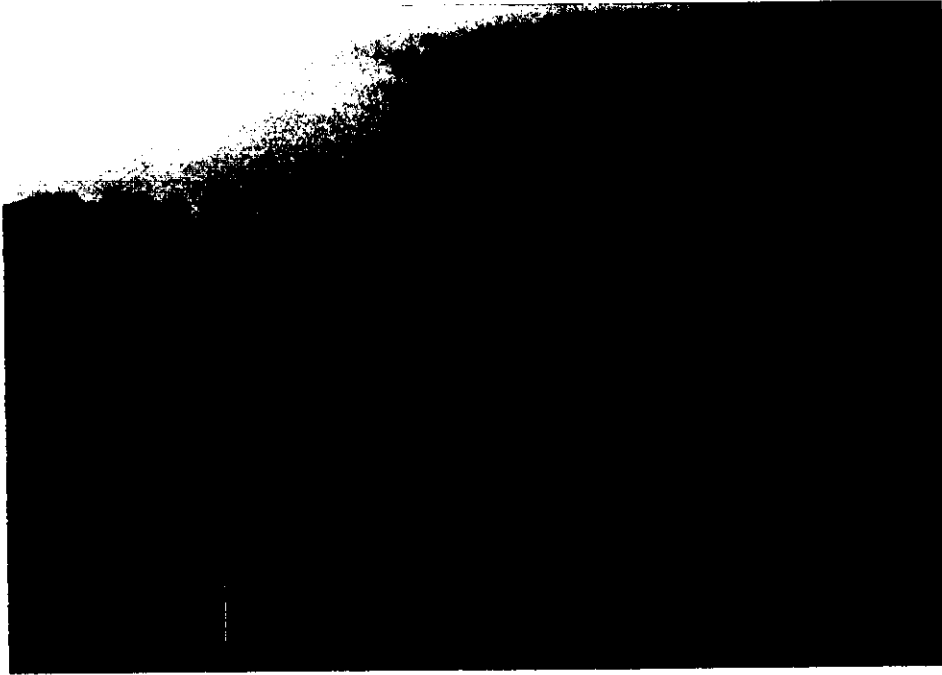


Fig. 11. Looking farther north along west bank at Port Edwards hydro headwater, from end of figure 10. Purple loosestrife common on this portion of west bank.



Fig. 12. Purple loosestrife on west bank of Wisconsin River in Port Edwards near point where highways 54 and 73 turn west away from River.



Fig. 13. Abundant purple loosestrife on west bank of Wisconsin River 100 yards north of highway 173 bridge in Nekoosa.



Fig. 14. West side of Witter Island. No purple loosestrife.



Fig. 15. Pete Rogers Island, from west bank of Wisconsin River. Some purple loosestrife on west bank, none on the Island.



Fig. 16. West side of Edwards Island. No purple loosestrife.



Fig. 17. Looking south along west bank of Wisconsin River and west side of Edwards Island. No purple loosestrife.

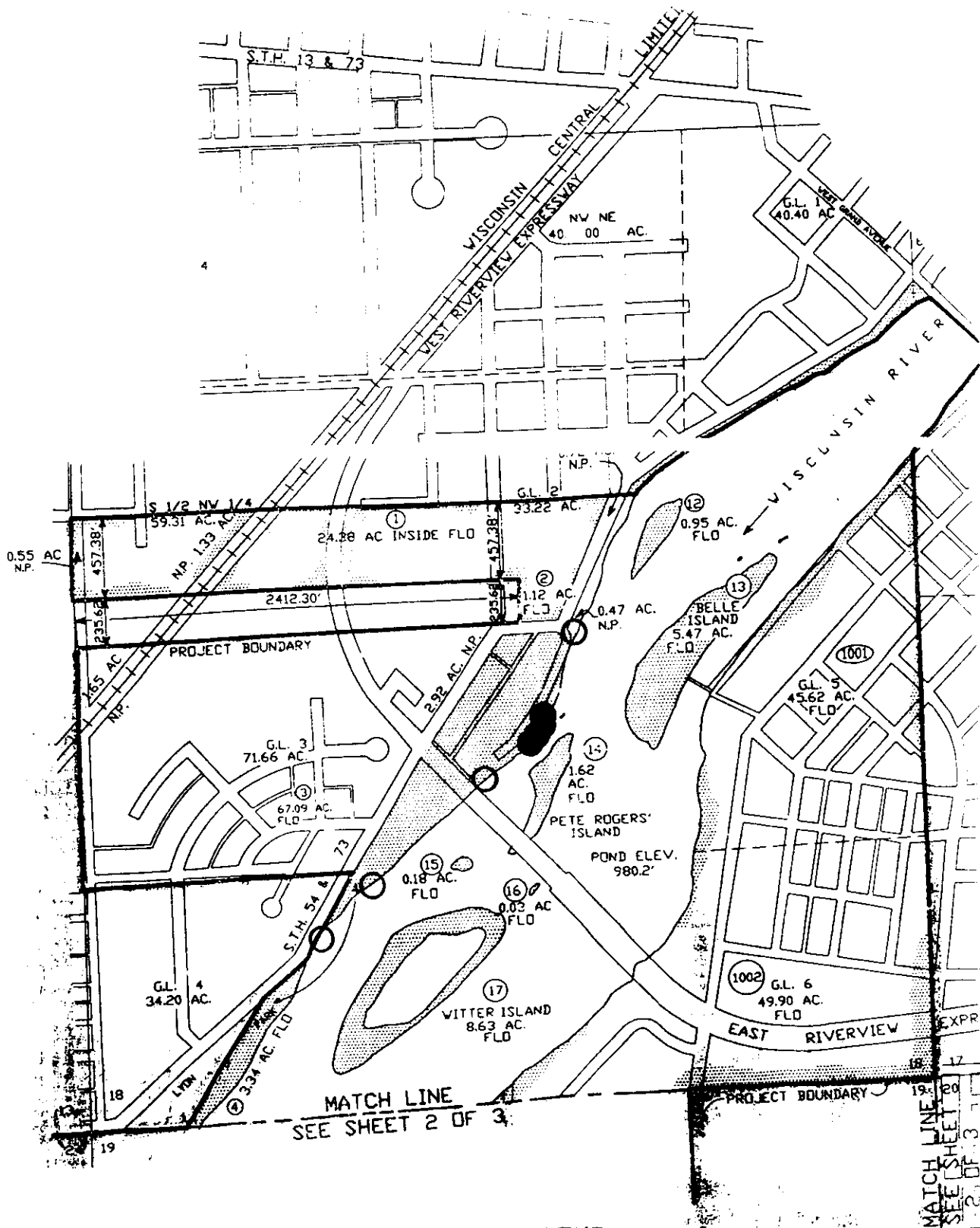


Fig. 18. Bicycle and hiking path west of Wisconsin River. No purple loosestrife.



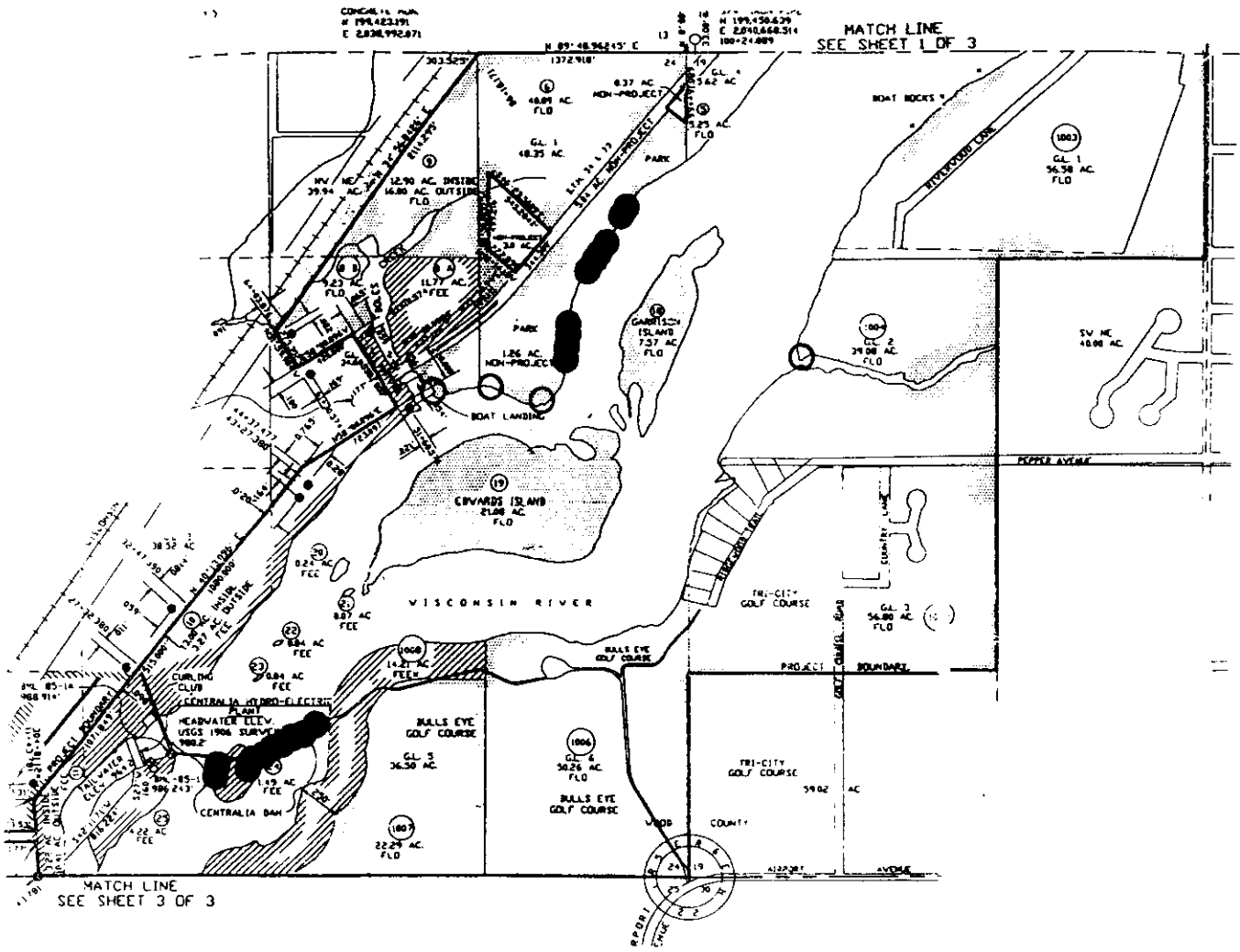
Fig. 19. East side of Wisconsin River near Port Edwards Hydro Plant. Scattered purple loosestrife on rock outcroppings in River, but absent on east bank.

DRWG DC-305



- PURPLE LOOSESTRIPE PRESENT
- " " REMOVED

# DRWG DC-306

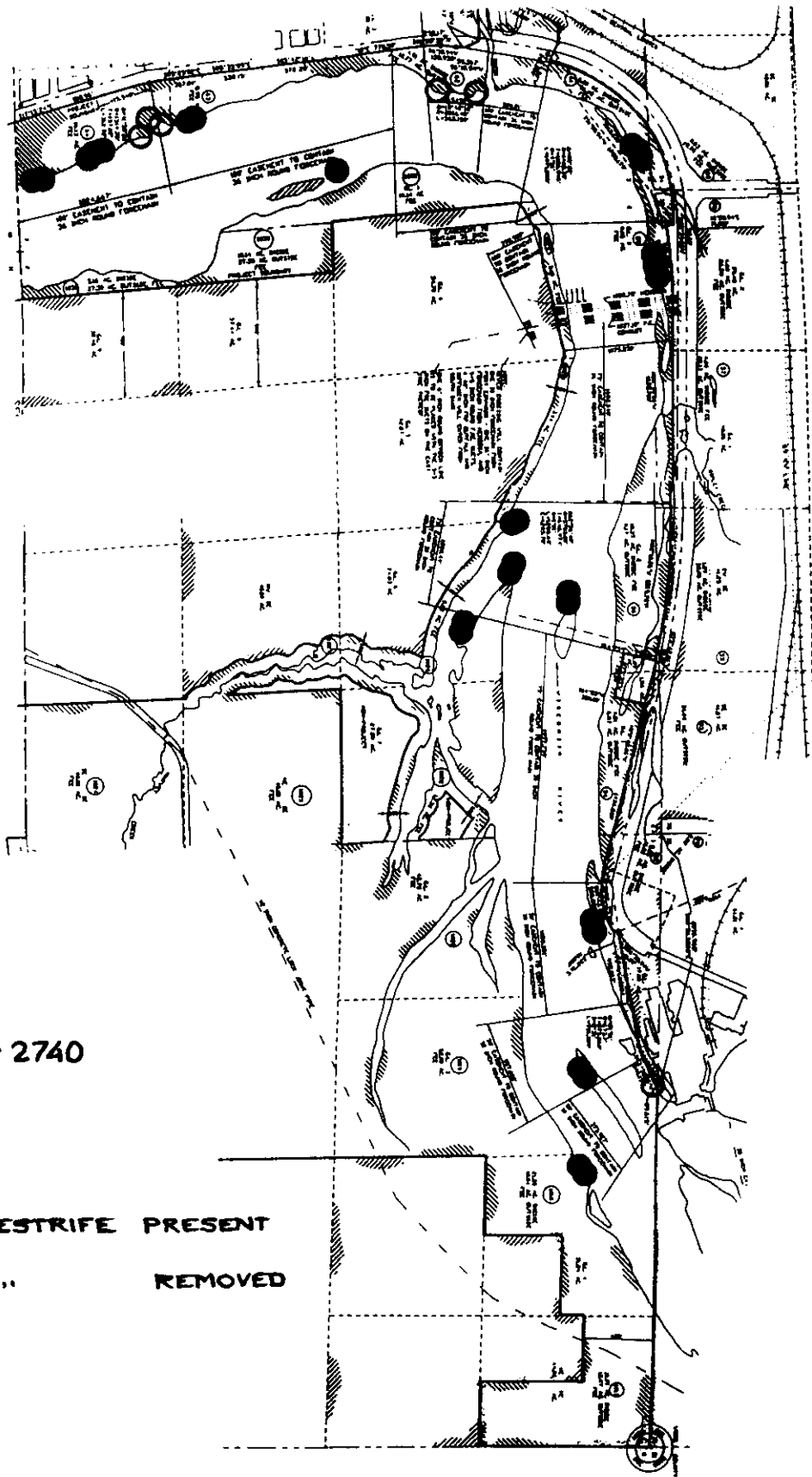


- PURPLE LOOSESTRIPE PRESENT
- " " REMOVED





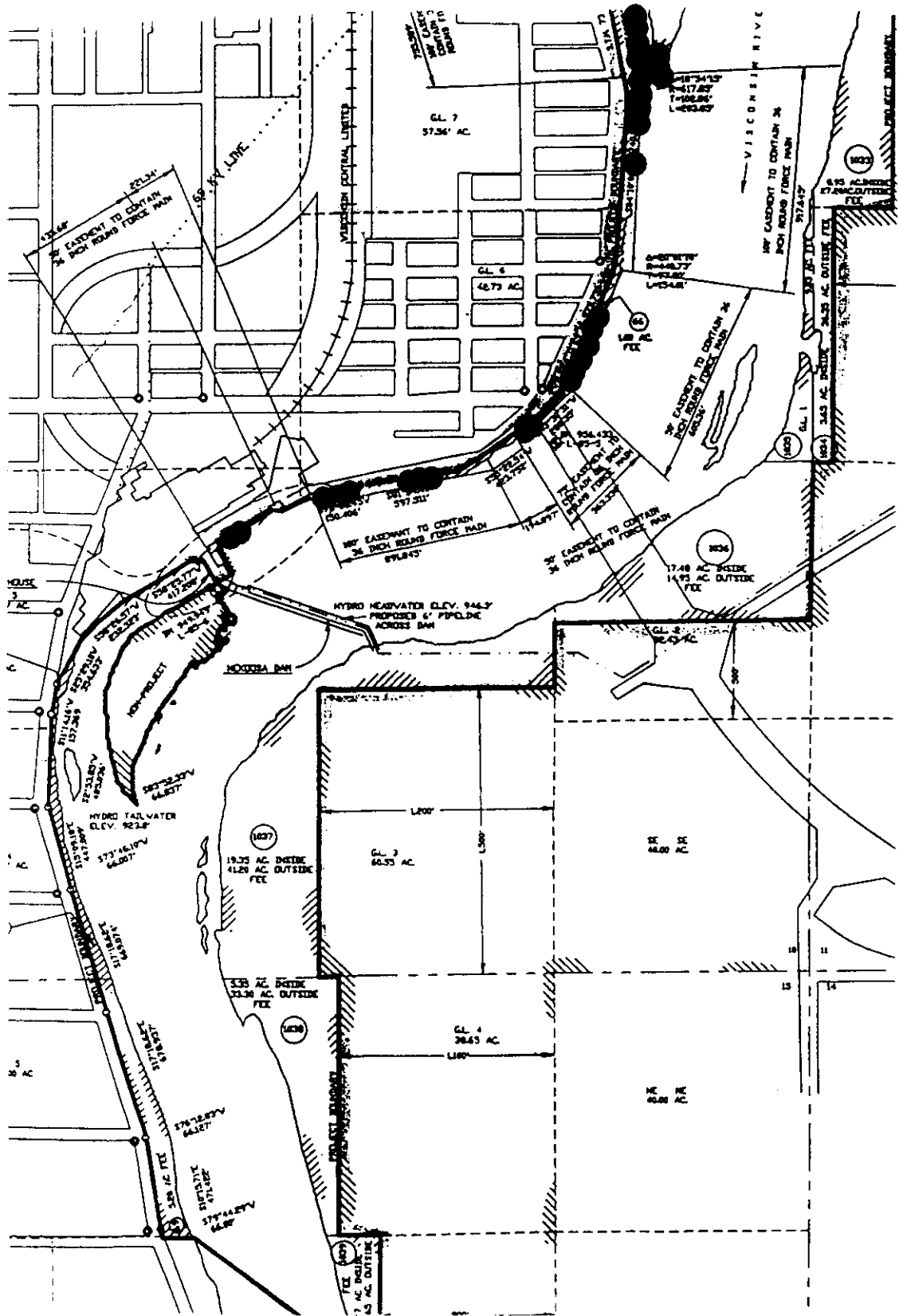




DRWG DN-2740

- PURPLE LOOSESTRIFE PRESENT
- " " REMOVED

DRWG DN-2341



● PURPLE LOOBESTRIPE PRESENT  
 ○ " " " " REMOVED