ORIGINAL

Wisconsin Electric Power Company

Upper Menominee River Basin Hydroelectric Projects

Proposed Post License Compliance Plans

September 29, 1999

Terrestrial-Based Natural Resources Management Plan

TERRESTRIAL-BASED NATURAL RESOURCES MANAGEMENT PLAN

COVERING FERC HYDROELECTRIC PROJECTS:

FERC Project:	Number:
Way Dam & Michigamme Reservoir	1759
Hemlock Falls	2074
Lower Paint Plant, Dam & Diversion Canal	2072
Peavy Falls Plant & Peavy Pond	1759
Michigamme Falls	2073
Twin Falls	1759
Kingsford	2131
Big Quinnesec Falls	1980

WISCONSIN ELECTRIC POWER COMPANY

September, 1999

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Introduction

This Terrestrial-Based Natural Resources Management Plan (Plan) pertains to the various terrestrial-based natural resources management issues addressed in the Wilderness Shores Settlement Agreement (WSSA) that was executed by Wisconsin Electric (WE) and nine other parties on February 10, 1997. This Plan covers four separate plans that were addressed in the WSSA. The eight FERC hydroelectric projects covered in this Plan are shown in Table 1.

Table 1

FERC Project Name and Plan Name for Eight Projects Covered in this Plan

FERC Project Name	Plan Name
Way Dam and Michigamme Reservoir	Way
Hemlock Falls	Hemlock
Lower Paint Plant, Dam and Diversion Canal	Lower Paint
Peavy Falls Plant and Peavy Pond	Peavy
Michigamme Falls	Michigamme Falls
Twin Falls	Twin
Kingsford	Kingsford
Big Quinnesec Falls	Big Q

Sections of the WSSA that are addressed in this Plan are 4.6 (4.6.1, 4.6.2, 4.6.3), 4.7.1, 5.1.1, and 5.1.4. Although associated non-project lands generally are treated similarly using the same land management philosophy, these lands are not covered in this Plan. The acreages of the eight projects as listed in the WSSA and as mapped on WE's Geographic Information System (GIS) are shown in Table 2. GIS acreages were calculated using black and white aerial photographs projected onto a base prepared from USGS quadrangles. This corrected for any distortion or variability in the scale of the aerial photos.

Table 2

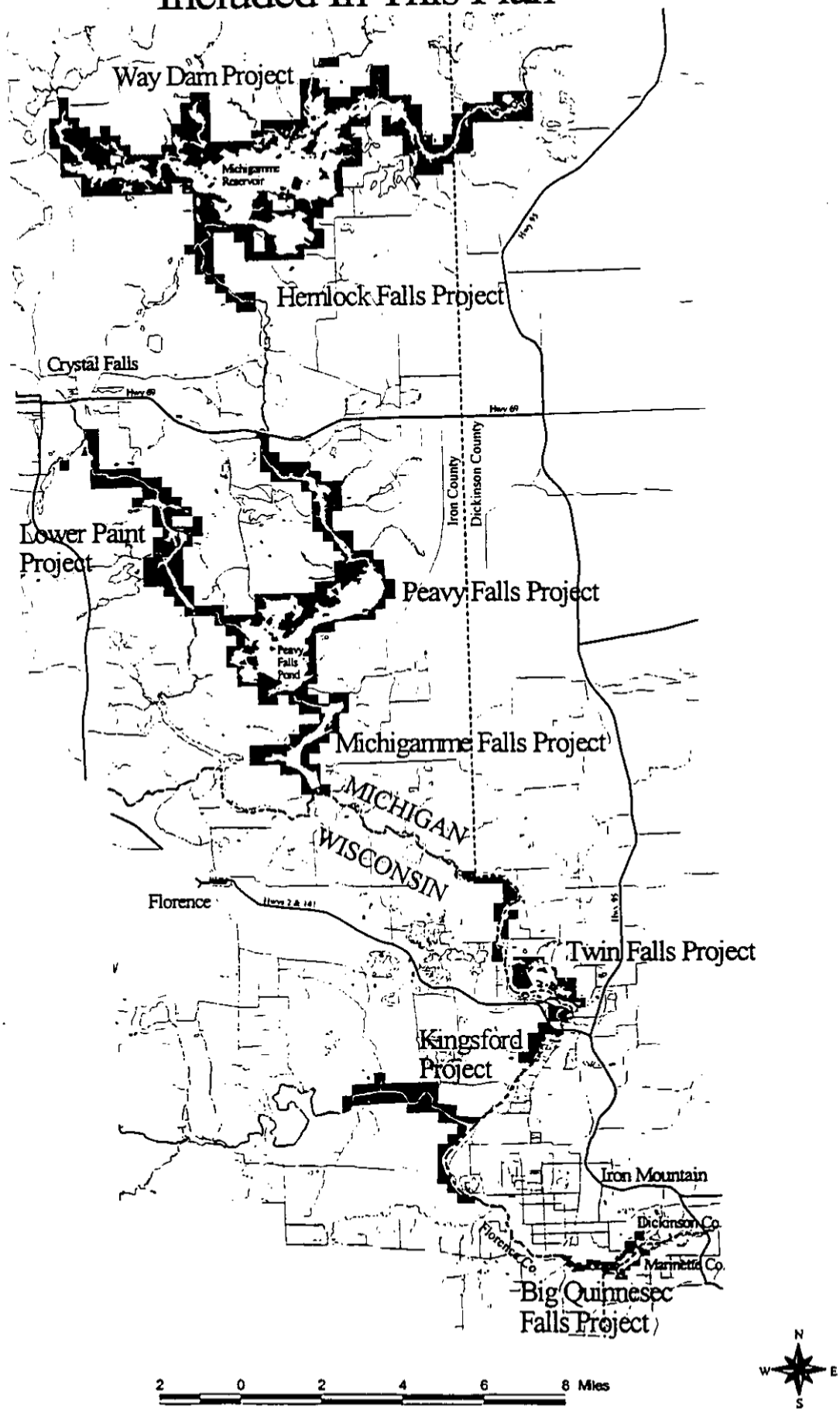
Acreages of Projects Covered in Plan

	Acres	
Project Name	WSSA	GIS
Way	7,900	7,851
Hemlock	800	820
Lower Paint	2,200	2,202
Peavy	3,500	3,462
Michigamme Falls	500	1,131
Twin	1,100	1,041
Kingsford	1,716	1,548
Big Q	400	370
Total	18,116	18,425

Maps of vegetative cover types, locations of bald eagle nests, and other geographical and natural resources information used for management purposes of these lands are derived from the GIS. The locations of the eight projects with project land indicated are shown on Figure 1.

Figure #1

Wisconsin Electric Hydro Projects Included In This Plan



The lands owned by the company that surround the impoundments and rivers are managed for a variety of purposes, all of which are compatible with the production of electrical power from the hydro electric facilities. Timber production, vegetative management, wildlife habitat, protection of sensitive natural resources, recreation, and aesthetics are certainly important aspects that receive prime consideration in this Plan. The Plan is intended to be applied in a manner that will help the company attain its desired objectives while protecting public interests and values in these lands.

The forests that cover most of these lands comprise a dynamic ecosystem that can be modified and changed through man's actions. Forest management normally includes an improvement on or limitation to natural forest growth and succession. Management of land is complex and requires forethought and planning so that the decisions and actions taken will have the desired consequences. Because management consequences are felt many decades into the future, short- and long-term plans are needed. This Plan will dictate those management practices designed to accelerate or decelerate the rate of change. These practices generally fall into one of five categories.

- **No Active Management:**

  This decision allows complete natural succession of the forest without direct intervention by man. It is most appropriate for areas having minimal economic value and greater wildlife habitat, recreation, or aesthetic value. It also is most appropriate for forest stands containing longer lived and shade tolerant tree species (species capable of regenerating under their own shade without some type of natural or man-made disturbance). Other reasons for instituting a "no active management" regime are presence of wetlands, islands, or other environmentally sensitive areas; operability constraints; promotion of "old growth;" and designated riparian zones.

- **Planting:**

  Planting is the method often chosen to fully stock sites or establish species that have difficulty naturally regenerating. It also is used to improve wildlife habitat as well as recreation and aesthetic values and for future commercial harvest.

- **Harvesting for Regeneration:**

  These types of harvests are designed to remove the current forest and promote natural regeneration of the desired forest cover. This method is normally employed for forest types containing a high percentage of shorter lived and shade intolerant species (species not capable of regenerating without full sunlight or some type of natural or man-made disturbance). This management often leads to stands of even-aged trees.

- **Harvesting to Improve Future Value of Current Resources:**

  This type of management generally includes non-commercial timber stand improvement work as well as commercial selective thinning. These strategies often are employed to improve growth rates and overall vigor on the best quality trees or the most desirable tree species. They also, in some instances, encourage regeneration of the stand and development of an uneven-aged forest.

- **Treatment to Set Back Plant Succession:**

There are certain vegetative types that will naturally succeed to other plant communities if left undisturbed. These types often have special attributes that make them valuable additions to the landscape. Also, their location or position in a particular setting may add value for several reasons, such as biodiversity, wildlife habitat, or aesthetics. Disturbance patterns and types that are appropriate vary. Types of disturbance other than cutting of woody species that may be employed on project lands include mowing, burning, and herbicide treatment.

This Plan is not intended to be inflexible or unchangeable. It will be adaptable to changing conditions while providing the framework for continuity in terrestrial-based natural resources management. The company is committed to a high degree of stewardship of these lands and values the opinion and advice of others who share a commitment to these natural resources.

Plan Administration and Implementation Schedule

A forest management plan was prepared by the Kimberly-Clark Corporation for these lands in 1966-67 after detailed examination of the property. Timber volumes were sampled and photo mosaic maps prepared. This plan was never updated and between 1975 and 1990 was not a force in the management of these lands.

The current Plan does not draw upon this information but instead is based on interpretation of vegetative cover maps and a forest inventory performed in 1990. The forest inventory was performed according to guidelines set forth in the Wisconsin Department of Natural Resources Forest Compartment Reconnaissance Handbook 2412. Unique forest stands were delineated on aerial photos and examined to obtain information pertinent to the development of short- and long-term management plans. The lands associated with each project area were divided into compartments, each containing a number of unique forest stands or other type of cover (e.g., water, rock outcrop, grassland). Compartments were identified as being areas with easily defined

physical boundaries and offering efficient management potential based primarily on access.

The development of the current Plan not only is based on these technical forestry data but also includes considerations relevant to the company's hydro recreation plan, wildlife species and habitat information, aesthetics considerations, and neighboring ownership and management objectives.

This Plan is administered by the Hydro Operations office located in Iron Mountain, Michigan. The Team Leader, Hydro Operations, is the staff position responsible for administering the Plan. Other company staff provide assistance on an "as needed basis."

Administration duties include:

- Provision of adequate financial support for the Plan;
- Maintenance of an adequate system of accounts, records, and reports for the orderly administration of the Plan and to serve as a basis of evaluation of Plan needs and implementation;
- Authorization for labor, equipment, and facilities to carry out the Plan;
- Initiation of dialogue with the Wisconsin and Michigan Departments of Natural Resources and the U.S. Fish and Wildlife Service on at least an annual basis to review upcoming Plan events, identify new issues, discuss any problems, and coordinate land management activities where possible;
- Initiation of dialogue with neighboring property owners on an "as needed basis" to discuss and coordinate management activities; and
- Participating in all other activities involved in the execution and administration of the Plan.

Many of the issues and activities discussed in the Plan have been part of the ongoing management program for these lands during the 1990s. Other issues and activities are new. All of the items/actions included in this Plan will be implemented no later than one year following license issuance.

Silvicultural Systems

Introduction

Timber harvesting has been and will be a continued forest management tool utilized on the lands of these eight projects. Given the multiple use qualities of these properties, it is recognized that traditional harvesting techniques may not always be the most appropriate action. Conflicts can arise when management is considered in areas where short-lived, shade-intolerant tree species dominate the forest cover along shorelines. Sound forestry would call for even-aged management of this area, while aesthetic concerns may conflict with the initial results of the prescribed harvest.

Harvesting is not appropriate on islands in the flowages of the projects because of aesthetic considerations and possible biodiversity ramifications. Thus, this Plan calls for no timber harvesting on islands in the flowages. Harvesting may not be appropriate in lowland forest types because of limited operability for timber producers. Harvesting conditions as well as the economic value of the products harvested may inhibit a successful commercial venture. It is accepted that compromises will occur because of these and other similar situations.

Even-aged

Under the even-aged system, stands consist of trees of the same or nearly the same age. Forest types managed under this system normally include a high percentage of comparatively shorter-lived, shade-intolerant tree species. Three different regeneration cutting methods are appropriate under specific conditions.

- Clear-cutting - Under this method, an entire stand is removed in one cut. Typically, an aspen stand will be managed using this method. Stands will be harvested at maturity as determined by biological and economic factors. Clear-cuts will usually be laid out with irregular boundaries or in a patch-cut nature. Some longer-lived species may be left for wildlife or visual purposes.

- Seed tree - Trees, either singly, in small groups, or in narrow strips, are left as a seed source when the old stand is removed in one cut.

- Shelterwood - A new stand is regenerated under the cover of a partial canopy called a shelterwood. A few periodic cuttings may be necessary to create an even-aged stand.

Uneven-aged

Trees in a stand are chosen for harvesting based on species, quality, and size class distribution at more or less regular time intervals. Trees harvested generally include those with an expected shorter life span, those of poorer quality, and/or trees too closely spaced. Selective harvesting in this manner promotes a future stand of better quality, vigorous trees. Forest types managed under this system include comparatively long-lived, shade-tolerant tree species.

Other silvicultural treatments that may be employed in managing project forest lands include early thinning and release, pruning, and planting. Specialized reforestation techniques often are necessary to regenerate certain species such as yellow birch, hemlock, and white cedar.

In general, the philosophy of forest management for WE's lands is to encourage more uneven-aged stands at the expense of even-aged stands where such opportunities occur and the habitat type is better suited to uneven-aged stands. More than 70% of the forested vegetative cover is aspen/white birch at this time.

Timber Harvesting

Sales

All sales and related activities to support sales are established and administered by the Plan Administrator. The company uses professional forestry services to aid in harvesting set up and administration. Compartment reconnaissance information is the prime source of data used in determining those areas to be harvested or to undergo management activities. An effort is being made throughout WE's ownership of forest lands to distribute the harvest through the compartments of a given project. The long-term goal is to work towards a regulated forest capable of supporting roughly equal annual harvests without negatively impacting the forest's future production capacity. The Plan Administrator maintains records sufficient to document the administration of all timber sale activities. Where feasible, signs are erected on harvest sites with the phone number of the Plan Administrator.

Best Management Practices

The Wisconsin and Michigan DNRs have published manuals that provide recommended guidelines that are part of Forestry Best Management Practices (BMPs)

for water quality. These are designed to help loggers, landowners, and land managers to be good stewards by protecting water quality during forest management practices. Although specifically addressing water quality, BMPs also will have positive benefits to soil and forest productivity, and thus, obviously to wildlife. The company has adopted these BMPs as part of its corporate land management and stewardship policies. Adoption of these BMPs also will assist in the protection of any environmentally sensitive project lands. The following points under Access and Practices highlight some of these guidelines.

Access

The planning, construction, and management of accessways for forestry activities consider both environmental and economic factors. In general, using existing accessways is preferred over creating new accessways. At times, creating new avenues for public use of lands are a consideration. The following guidelines set forth the company's policy in providing necessary access to conduct the proper management of project lands:

- Forestry activities are planned and implemented with an overall goal of conserving soil and protecting water quality;
- Surface disturbance is kept to a minimum when constructing accessways, including trail widths being kept to a minimum;
- Accessway grades generally are no greater than 8%;
- Steep cuts and banks are avoided;
- Construction is limited during adverse weather, with construction residue being kept out of lakes and streams;
- Water diversion techniques are employed to control water runoff to avoid erosion and sedimentation;
- Vegetative filters or buffers may be used adjacent to waterways;
- Use and adequacy of fill required during accessway construction are carefully considered;
- Stream crossings are kept to a minimum, and the forestry contractor obtains any necessary regulatory permits and approvals to cross streams;

- Stream bank disturbance is kept to a minimum;
- Materials or structures used in stream crossings are removed when no longer needed;
- Re-vegetation of accessways is considered to control erosion and for wildlife;
- Accessways are restricted from wheeled vehicular access when necessary; and
- Accessways over wet soils are developed only when the ground is frozen or under firm and dry soil conditions.

Practices

Harvesting practices are intended to be environmentally acceptable with consideration given to maintenance of water quality, soil productivity, wildlife habitat, recreational opportunities, and aesthetics. Cultural practices to improve the project lands that may precede harvesting employ biological, mechanical, and chemical methods that are effective, efficient, and environmentally sound. These cultural practices include regeneration, planting, and stand improvement.

Harvesting methods that may be employed on project lands include shortwood, tree-length, and whole-tree. Whole-tree, which includes all tops but not stump or roots, is practiced on a very limited basis, primarily for aesthetic reasons rather than because of markets. Because poor selection and application of a harvesting method can affect the forest resource adversely, care and attention are given to matching stand conditions and stand management objectives with harvesting techniques, equipment, and on-the-ground lay-out. Generally, shortwood harvesting is preferred unless there is a need for site preparation for regeneration.

The following are guidelines that provide direction for timber harvesting on these eight projects:

Landings

- Landings are located to minimize soil erosion and sedimentation, which includes giving attention to slope, soil type, drainage patterns, and nearness to water bodies;
- Landings are sized to match the operation; and
- Care to prevent fuel and lubricant spills is taken.

Felling

- To reduce damage to residual trees and stimulate reproduction, careful felling is encouraged;
- Directional felling is emphasized to minimize soil disturbance and so that waterways are not adversely affected; and
- Strips of timber are maintained along the waterways to help prevent erosion and enhance aesthetics, and possibly biodiversity.

Skidding

- Skidding operations attempt to minimize soil disturbance, soil compaction, and soil displacement;
- Skidding equipment attempt to avoid steep gradients, disruption of natural drainage, being operated on or across stream beds, and easily erodible soils;
- On slopes, skid trails have occasional breaks in grade to allow water diversion; and
- Attention is given to operating skidding equipment to reduce damage to residual trees.

Disposal of Litter and Residue

- All litter (e.g., paper, plastic, etc.) is removed from the operation area and properly recycled or disposed;
- Harvesting residue that accumulates in water bodies is removed and appropriately deposited; and
- Harvesting residue accumulations elsewhere generally is scattered as necessary, with special attention paid to using this material to reduce erosion.

Integrated Pest Management And Natural Disasters

Integrated pest management may involve a wide variety of strategies to minimize the economic impact of forest pests, including injurious insects, disease, and unwanted or competing vegetation. The company cooperates with the MDNR and WDNR to help them meet their objectives in addressing insect or disease outbreaks as necessary. Among the techniques that may be used on project lands include:

- Harvesting of diseased or infected trees or stands;

- Using silvicultural systems prescribed specifically to minimize pest populations and development;

- Growing tree species that are adapted to the site; and

- Favoring a diversity of species and ages either within or between stands, as appropriate.

Use of chemicals will be judicious. Possible strategies where chemicals (herbicides) may be used are in site preparation in order to establish even-aged plantations, in managing wildlife openings, and in maintaining grass cover near dams or dikes.

If a natural disaster (e.g., tornado, ice storm, blowdown, forest fire, etc.) should occur on these project lands, the situation will be evaluated, and a specific restoration measure will be prescribed.

Nuisance plant species are addressed in a separate section in this Plan.

Electrical Line Rights-Of-Way

The operation and maintenance of the electrical lines on project lands are an essential activity since they are the means by which the electrical power generated at the hydro facilities is transmitted to its final use. The management of vegetation on and along these rights-of-way (ROW) likewise is important. The following are management considerations for electrical line ROWs on these lands.

- Buffer zones left next to overhead electrical lines will be of sufficient width or species composition to prevent "wind throw" trees from falling on the lines. This prevents outages due to the common occurrence of trees left uncut on the edge of clear-cuts or even selectively cut areas leaning or falling due to wind. Prior to the harvest, these trees were protected by the cut trees and did not develop a sufficient root or trunk system to withstand the new wind forces.

- Any planting plans will take into account the width of the electrical ROW. No tall growing tree species will be planted on these ROWs. The company's regional forester will be consulted on the necessary ROW width, which will vary according to voltage, structure design, and ground clearance.

- The maintenance of electrical ROWs on these lands is primarily by selective clearing. Such clearing encourages the growth of low growing species of trees and shrubs. Grasses and forbs also are benefited by selective clearing, thus wildlife openings are created at no extra cost.

Hunting and Trapping

Although hunting and trapping are recreational activities they do have a relationship to land management. Project lands owned by the company are open to hunting and trapping. In addition to applicable state regulations, the following restrictions are in effect on these lands.

- A permanent deer or waterfowl blind or stand may not be used because it interferes with the right of others to freely use these lands. A permanent blind/stand is one that remains in place after the hunting season and is made of unnatural materials.

- Unnatural materials used in blind construction, such as sawn boards, plywood, tarpaper, plastic, corrugated metal, or wire, may not be abandoned in the forest. Unnatural materials are unsightly, out of place in the woods, and conflict with the land's visual resources. Leaving lumber or plastic (including flagging) behind is littering.

- Live trees, including large trees, saplings, and seedlings, may not be defaced or cut for shooting lanes. Structures also may not be nailed or wired to trees.

- A practice strongly encouraged by the company is for all materials that are brought onto company lands should be packed out.

- Hunting at certain times or in certain areas may be limited to protect property or timber, and forestry workers.

Aesthetic Management

It is company policy to apply aesthetic forest management to its project lands. The WDNR Silvicultural and Forest Aesthetics Handbook 2431.5 is referred to for management prescription guidelines. While four scenic management zones are identified in this classification, three zones are identified for these eight projects.

Zone A

This zone is managed primarily for scenic values. Areas of the projects in this zone include the impoundment shoreline, all islands in the impoundments, the area in the near vicinity of the dams, and the designated recreation areas. For the recreation areas, zone boundaries include all of the area within the effective visible horizon as determined from any location within the recreation area.

Zone B

Scenic attractiveness is maintained in this zone, but no one value has priority at all times. Included in this zone are the graveled town roads that cross the land.

Zone C

Areas not included in either zones A or B are in this zone, where general timber production is the primary management focus.

Opportunities to enhance the visual resource are sought during the planning and conduct of land management activities. Possible landscaping techniques that may be used include:

- Varying or scalloping clear cut edges;
- Screening harvested areas from roads/streams by leaving strips of forest or establishing buffers now in anticipation of future harvesting;
- Leaving trees or shrubs having attractive form, fruit, or berries;
- Creating openings or open landscapes for panoramic views; and
- Maintaining the appropriate vegetative cover on unique areas.

Forest Management Plans

A wide variety of vegetative cover types are present on the 18,425 acres of project land owned by the company on these eight hydroelectric projects. As mentioned previously, in general, WE non-project lands associated with these projects are managed in conjunction with and similarly to lands inside FERC project boundaries. Details of the forest reconnaissance performed in 1990 are maintained in project files and are available upon request. Table 3 summarizes by project the number of cover types (or stands) and their areal coverage. Table 4 presents habitat type information by project.

Data on management activities are being added continually to the GIS data base to maintain up-to-date information and maps.

A recommended management prescription and the targeted prescription year have been prepared for each of the 985 distinctive stands. They are based upon forest reconnaissance data and include considerations for all the factors mentioned in this Plan (i.e., recreation, wildlife, unique habitat, etc.). This establishes a planning guideline that is important in shaping the company's management of the lands in the coming years. For more detailed planning, a five-year forestry management plan is used. The five year plan is divided into one year periods of time. Management occurring by compartment and stand is described relative to the year in which the specific management occurs. In addition to a review of the forest reconnaissance data, stands are revisited before being added to the 5 year plan. Stands are inspected the year prior to the scheduled management to begin specific planning for field set-up operations. The GIS also is updated approximately annually to refect changes resulting in management prescriptions.

The forest is a dynamic biological community that is continually changing. Some of these changes can be predicted and anticipated; others can not. The five-year plan is reviewed and updated approximately annually. As an important source of perspective and information, the Plan Administrator and other company and contractor staff, as noted in a following section, meet at least annually to consult with appropriate staff from natural resource agencies. This review is useful in helping to keep the five year plan current and workable.

Land Cover Acreage Summary

LAND COVER TYPE	PROJECT								Total GIS Cover Type Acres
	Way Dam	Hemlock Falls	Lower Paint	Peavy Falls	Michigamme Falls	Twin Falls	Kingsford	Big Quinnesec	
Forest Types									
Aspen/White Birch	5,506	488	978	2,028	757	561	848	212	11,378
Northern Hardwoods	667	48	97	794	227	140	42	75	2,090
Pine & Upland Fir/Spruce	446	43	333	198	22	130	207	13	1,392
Lowland Conifers	238	33	103	134	37	21	80	10	656
Lowland Hardwoods	6	43	100	18	15	3	14	0	199
Oak	0	0	15	0	0	30	32	17	94
Non-Forest Types									
Open Lowland	675	96	110	165	48	11	62	1	1,168
Open Upland	150	36	433	96	20	45	246	22	1,048
Water	86	19	22	10	1	59	11	3	211
Other	77	14	11	19	4	41	6	17	189
Totals									
Total GIS Project Acres	7,851	820	2,202	3,462	1,131	1,041	1,548	370	18,425
Total # of Cover Type Stands	383	60	135	166	62	59	87	33	985

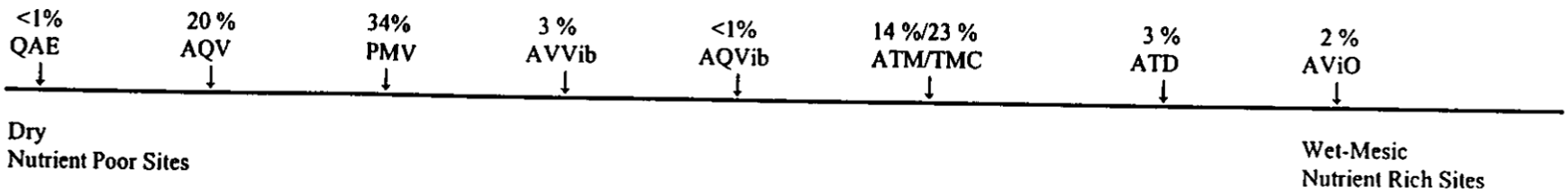
TABLE 3

Forest Habitat Type Acreage Summary

HABITAT TYPE	Habitat Code	PROJECT								Total GIS Habitat Acres
		Way Dam	Hemlock Falls	Lower Paint	Peavy Falls	Michigamme Falls	Twin Falls	Kingsford	Big Quinnesec	
Acer-Quercus/Vaccinium	AQV	854	60	1,173	180	72	124	794	20	3,277
Acer-Tsuga/Dryopteris	ATD	168	6	34	195	26	0	0	23	452
Acer-Tsuga/Maianthemum	ATM	457	190	213	965	460	18	0	0	2,303
Pinus/Maianthemum-Vaccinium	PMV	3,023	0	133	887	114	531	443	256	5,387
Tsuga/Maianthemum-Coptis	TMC	2,001	267	304	869	194	42	5	5	3,687
Acer/Viola-Osmorhiza	AViO	110	32	0	0	160	0	0	0	302
Acer/Vaccinium-Viburnum	AVVib	150	59	0	21	0	88	132	0	450
Quercus-Acer/Epigaea	QAE	0	0	3	1	0	0	0	0	4
Acer-Quercus/Viburnum	AQVib	0	0	0	0	0	102	0	0	102
Total GIS Acres For Uplands With a Habitat Type Code		6,763	614	1,860	3,118	1,026	905	1,374	304	15,964

TABLE 4

Relationship of Habitat Types To Site



Riparian Buffer Zones

Riparian buffer zones (RBZs) are land and vegetation zones next to lakes and streams where management practices are modified to protect certain natural resources. These areas often are complex ecosystems that provide food, habitat, and movement corridors for both aquatic and terrestrial organisms.

RBZs help to filter sediment and nutrients from runoff, allow water to soak into the ground, stabilize streambanks and lakeshores, and shade the water. RBZs also play a key role in enhancing the aesthetics of the shoreline area. RBZs are addressed in the state BMPs discussed previously and being followed in this Plan.

The WSSA sets forth "old growth forest" as a management objective for RBZs for these eight projects. The definition of "old growth" is somewhat difficult to characterize. "Natural succession" is a better choice to describe what is essentially a "no management zone." How the vegetation will change in character and composition from location to location will vary tremendously, as will the speed of these vegetational changes. Many factors influence how the composition of a plant community changes over time.

There are instances or locations where vegetation will be managed actively within the RBZs. These include along ROWs, around the facilities (including dikes) necessary to operate the hydro system, in recreation sites, and in special cases where specific management techniques are being employed to achieve a certain land cover (e.g., using prescribed fire to restore and manage barrens habitat).

The eight projects have almost 300 miles of impoundment and river shoreline. Much of this shoreline area is in the townships of Crystal Falls, Mansfield, and Mastodon in Iron County, Michigan. Ordinances in these townships establish 150 ft.-wide vegetative management zones that are to be maintained in a natural condition (defined as one stem 15 ft. tall for every 100 $ft.^2$) to protect lands along the rivers and impoundments. Because of these regulations much of the land bordering the rivers and impoundments for these projects have RBZs in place. In many locations, the vegetation in these RBZs have succeeded to a cover type that is different from cover types beyond 150 ft.

The RBZs established as part of this Plan will extend out to 200 ft. The first 150 ft. out from the water body will be a no harvest, natural succession area. The 50 ft. strip between 150 ft. and 200 ft. will be managed differently. For uneven forest stands in this 50 ft. strip, selective harvesting will continue to be an appropriate management action. For even forest stands like aspen, harvesting will be done in a manner to discourage aspen regeneration . Clear cutting in this 50 ft. strip is not a management option. One-

half of the stumpage value received by the Company through harvesting operations in this 50 ft. strip will be used to increase the robustness of the 150 ft. strip. For example, interplanting with pine in the 150 ft. area will be a management option. Additionally, the RBZs often will be wider than 150 ft. because the cover type present is not managed typically for timber production or where operability or terrain constraints rule.

Proposed management actions within RBZs will be identified, described, and presented to the agencies during the annual consultation meetings, and then only pursued following agency review and acceptance.

Nuisance Plant Control

Purple loosestrife (Lythrum salicaria) is a perennial wetland plant that was introduced to North America during the early to mid-1800s. Loosestrife is found in wet and moist soil habitats such as marshes, stream and river banks, drainage ditches, ponds and seasonally flooded impoundments. It tolerates changes in soil moisture and temperature, and in this country, has no natural enemies. This gives the plant a competitive advantage over most native wetland plants. Once established, loosestrife can predominate over other plant life in the area. Consequently, purple loosestrife has degraded many prime wetland habitats by significantly reducing the diversity of native vegetation and the associated species of wetland wildlife. Several insects that feed on purple loosestrife have been introduced and are showing promising results in experimental releases. Ultimately, biological methods may control purple loosestrife populations.

Eurasian water milfoil (Myriophyllum spicatum) is a submersed aquatic plant native to Europe, Asia, and Northern Africa. It is one of eight milfoil species found in Wisconsin and the only one that is not native. It spreads by shoots and stolons, but does not rely on seed for reproduction. Green shoots spread when they fragment or break off and float downstream or get carried by other means to other waters. The problem with Eurasian water milfoil stems from its propensity for explosive growth and its incredible ability to regenerate. It can out-compete important native aquatic plant communities and can form huge monocultural stands that diminish certain recreational uses.

Both of these exotic wetland plants have generated considerable attention from natural resource agencies in the Upper Midwest because of the threat they pose to our important native plant and animal communities. Important in any program to minimize spread of these species into new locales is a periodic monitoring program. Detecting early invasions greatly enhances the chances for implementation of a successful control effort.

Status of Species in Area

Neither species was observed during aquatic plant surveys conducted on seven of the eight projects. A few purple loosestrife plants were observed by biologists in the Weber Lake area in the northeastern section of Michigamme Reservoir (Way project) in summer 1997. Eurasian water milfoil was found in the mid-1990s by WDNR staff where it had washed up on the Vagabond-area boat launch on the Twin Falls impoundment. In general, both species are known from more locations and in higher population densities in southern Wisconsin and southern Michigan. The project area does not appear to be a hot spot for either species.

Control Activities

A variety of control methods have been tried for purple loosestrife. These include pulling, mowing, burning, flooding, disking, applying chemicals, and using insect agents to biologically control loosestrife.

Technologies for controlling Eurasian water milfoil include mechanical (harvesting, hydro-raking, rotavating, hydraulic dredging, and diver-operated suction harvesting), chemical, biological (grass carp, pathogens, allelopathy, and herbivorous insects), habitat manipulation (bottom barrier, drawdown, and colorants), and physical (hand pulling). Many of these control methods are ineffectual or have specific circumstances where they may be applied effectively. The advantages and disadvantages of any control programs need to be weighted and considered carefully before implementation of a control activity.

Monitoring Plan

An effective monitoring program for exotics provides the foundation for a sound management program. The following describes Wisconsin Electric 's plan to monitor purple loosestrife and Eurasian water milfoil in project waters and lands.

- The entire shoreline of the impoundments of the eight projects will be visually surveyed by two observers in a boat. All waters and appropriate wetlands within the project boundary also will be surveyed. Those areas of the impoundment supporting growth of submersed aquatic plants also will be surveyed. Any current and readily available true color aerial photos of the project area will be used to assist in detecting areas with purple loosestrife.

- Monitoring will occur biennially with the survey typically being conducted between July 25 and August 7 unless weather conditions that would affect peak blooming time dictate otherwise.

- The location of any purple loosestrife plants or Eurasian water milfoil found during the survey will be detailed on a map and the size of the population will be noted.

- For each purple loosestrife stand, the following will be determined: stand area, percent cover, stem density, and plant density. Sampling and measuring methodologies may differ according to stand characteristics but will be sufficiently rigorous to document the character of each stand.

- If an Eurasian water milfoil stand is found, the following will be determined: stand perimeter, mat density, and overall mat thickness. The milfoil survey entails two observers in a boat visually searching the water for the presence of water milfoil. Water milfoil typically can be observed either when it is growing at or near the surface or even in moderately deep water (4-6 ft.). When milfoil is observed, a determination is made as to species, which usually is the native species, northern water milfoil (M. exalbescens). When necessary to handle a specimen for closer examination, a dip net or rake is used to obtain a sample.

- Locations of purple loosestrife and Eurasian water milfoil stands will be permanently marked using a shoreline benchmark with a known Global Position System (GPS) coordinate, and the actual stands will be delineated on a map using GPS coordinates.

- The results of the annual monitoring will be transmitted to the U.S. Fish and Wildlife Service, Wisconsin DNR, and Michigan DNR within 30 days of the survey date.

- As it is advisable to remove all purple loosestrife plants at the earliest stage of an infestation, appropriate steps will be taken by WE to physically remove any plants at the time of detection.

- Wisconsin Electric will work to control or eliminate purple loosestrife or Eurasian water milfoil on the projects upon the request of the U.S. Fish and Wildlife Service, Wisconsin DNR, or Michigan DNR at any time during the period of the licenses for these eight projects.

- Wisconsin Electric will post information on purple loosestrife and Eurasian water milfoil identification and prevention of spread on bulletin boards located at WE's recreation areas. The information used will be that developed by natural resource agencies or other organizations for educational use at water access locations.

- In the year following any discovery of purple loosestrife or Eurasian water milfoil on these projects, brochures or other appropriate literature describing the control and spread of these species will be placed at WE's recreation areas.

Wildlife Management

Introduction

Wildlife is viewed as encompassing all animal species. Fish and other truly aquatic species are not addressed in this Plan. Normal land management activities related to timber management, recreational activities, aesthetics, and electrical facilities operations, as well as efforts deliberately carried out for wildlife, can all affect wildlife species presence and their populations. By directly managing habitat, populations of a single species or a suite of species can be affected. Of particular interest in managing for wildlife are the kinds of vegetation (vegetation types or plant communities), age of vegetation, and the spatial arrangement of vegetation on project lands and on neighboring properties. Activities such as timber harvesting and the considerations that go into planning timber harvests, such as areal extent of harvest, timing, and configuration, are important because of their direct and indirect effects on wildlife populations.

Some wildlife species use several habitats depending upon their specific life requirements, the season of the year, and food/cover availability. Other species have quite restrictive habitat requirements. For wildlife to be both plentiful and diverse, a varied mosaic of habitats across the landscape is required and is a goal of this Plan. It is recognized that managing for a particular species or set of species will have detrimental effects on certain other wildlife populations.

Management Practices and Issues

The following provisions, activities, measures, and guidelines will be used for wildlife management purposes on project lands. Many of these practices were implemented in the early 1990s and will continue to be followed. Others will be implemented in the coming years, but all will be in place within one year of license issuance. Some practices will positively affect a number of species while others will impact a single or only a few wildlife species. In general, all of these wildlife management practices will enhance the overall complement or biodiversity of wildlife species on project lands.

Clear-cuts

Removing an entire stand in one cut is a recognized and effective method to regenerate tree species that typically are managed as an even-aged system. Species like aspen and jack pine are comparatively shorter-lived and shade intolerant, and an aspen stand, for example, is usually harvested in one cut at maturity. Different wildlife species inhabit these even-aged stands at different stages of succession. Certain species are

most abundant in a very young clear-cut and decline in abundance as the stand matures. Other wildlife species react in reverse. Clear cuts on project lands will generally be small (± 30 - 40 acres) and where possible, will be laid out with irregular boundaries. However, as we study and understand ecosystem management more fully and place more emphasis on managing plant communities and wildlife populations on a regional or landscape scale, larger clear-cuts in the Midwest are becoming a practice that is more acceptable and that has recognized benefits to certain wildlife species. As stated earlier, the Plan must have sufficient flexibility to react to changing environmental conditions and increased understanding of how ecological processes function. Some longer-lived tree species will be left. for wildlife or visual purposes in clear-cuts when practical. A mixture of aspen ages throughout project lands is a management objective. Regeneration stands of aspen and other deciduous species also will be maintained where possible as winter food sources for wildlife.

Shelterwood Cuts

In some stands where promotion of pine, oak, or white birch regeneration is desired, a shelterwood cut also may be beneficial to wildlife. The mature trees remaining after a shelterwood cut can provide one set of values to wildlife, while the regenerating woody vegetation can provide a different set of benefits. While opportunities to use this technique may not be frequent, shelterwood cuts will be considered before management prescriptions are established for those stands that hold promise.

Uneven-aged Management

Maintaining or enhancing tree and shrub species diversity in hardwood stands will be a priority. These species can play a significant role in maintaining diverse wildlife populations. Vegetative structure diversity also is important in encouraging diverse wildlife populations. Understory and midstory vegetation will not be selected against in this management regime.

Food-bearing Trees and Shrubs

Fruits and mast-bearing trees and shrubs will be retained in all stands when possible. These woody plant species are especially important to a large variety of animals. When a stand is undergoing active management, special consideration will be given to retain these species.

Wildlife Trees

Unless they present a safety or operational problem or because certain management or biological considerations dictate otherwise, hollow and wolf trees will not be destroyed, and snags and dead trees will be left. More than 50 wildlife species in Wisconsin and Michigan use cavities in trees for nesting or denning. Birch, maple, elm, ash,

basswood, beech, aspen, oak, pine, and hemlock are tree species most often used for cavities. Use of a wildlife tree depends on the characteristics of the tree (live/dead, dbh, height, type of decay). Important features for identifying potential cavity-nest trees are broken-off tops, large broken-off branches, presence of conks or other fungal fruiting bodies, old wounds or scars, dead portions of the tree, and existing woodpecker cavities.A minimum of four wildlife trees >6" dbh per acre will be used as a guideline during a timber harvest operation, although this is not always realistic or aesthetically pleasing, and does not preclude leaving scattered clumps of trees. Where choices can be made, size classes over a 10-acre area will be distributed as follows: 4-5 trees > 18" dbh, 10-15 trees >14" dbh, and 20-25 trees >6" dbh.

Wildlife Openings

Openings are areas that are generally <10% stocked with trees and are dominated by perennial grasses, forbs, and fruiting shrubs. These openings are important to several wildlife species. Each forest opening that currently exists on project lands will be evaluated to determine a management prescription. Options include letting natural succession proceed, planting tree seedlings, or encouraging maintenance of their openness character. This would involve some sort of periodic disturbance in most instances.

Winter Cover

Winter cover is very important to some species like white-tailed deer and ruffed grouse. Lowland stands of conifers will be maintained for winter cover wherever possible.

Vegetative Plantings

There may be situations where planting tree and shrub species is appropriate. These include for conifer plantations, at recreation sites, near hydro operations facilities, and for aesthetic purposes. Each situation will be evaluated as it arises and a determination made on how best to proceed. For those situations where outside input would be helpful or where such actions could be controversial, the natural resources agencies will be consulted before planting action is taken.

Accessways

Accessways constructed during timber harvest operations may become important travel-ways for some wildlife species and are used also by hunters and hikers. Decisions on road closure are made on a case-by-case basis. Those accessways providing direct access to the shoreline are generally closed to vehicular trafic. Seeding of accessways to legumes such as white Dutch clover or to other native species will be considered on a case-by-case basis. Seeding advice will be sought from DNRs' staffs

during the annual planning/consultation meetings as to which access-way should be seeded and what techniques and seed should be used.

Woody Debris

While timber harvesting debris generally will be scattered, where there are opportunities to pile logging slash for wildlife cover, such opportunities will be exploited. Woody debris is an important habitat component for many wildlife species. Decaying logs are especially beneficial to wildlife.

Special consideration will be given to riparian areas where opportunities to add woody debris for wildlife might be possible. Studies conducted to show how woody debris in riparian areas affect terrestrial wildlife are few compared with the rather extensive data for fish and the benefits that woody debris in riparian areas have for them. As previously discussed, the RBZs for these projects will have a natural succession management prescription, which should increase the amount of woody debris with time. It should be recognized the time frame necessary to achieve measurable increases naturally is considerable (decades).

Habitat Fragmentation

A land management objective for these project lands is to reduce habitat fragmentation. Some species are positively impacted as the landscape becomes more fragmented; others, especially those requiring larger blocks of similar habitat, are impacted negatively. In many situations, the fragmentation of habitats actually increases species richness, although it is the species generalists that usually benefit rather than those species with more specific or narrow habitat requirements. It is these species that tend to be less common and that should be of greater concern to land managers.

For the purposes of this Plan, an attempt will be made to look for compatible habitat management objectives and for opportunities to adjust WE objectives to mesh with those of neighboring landowners. By encouraging similar management objectives on adjoining stands, it is hoped that stand sizes having management prescriptions will increase over time.

The concept of habitat fragmentation needs to have a larger regional perspective as local species diversity may decrease under this scenario. Because of the layout of much of these project lands, which is often very linear because of their location along streams and impoundment shorelines, opportunities to manage larger blocks of land with a low edge to interior ratio is limited. Even with these constraints, reducing habitat fragmentation over time is one management objective of this Plan.

Habitat Corridors

Habitat corridors that connect or link similar habitats are generally viewed as benefiting most wildlife species. Designating RBZs along stream and impoundment shorelines of these projects is an important consideration in addressing this concept. As with habitat fragmentation, the overall linear nature of company ownership of lands within these projects reduces the opportunities to maximize this management concept. When evaluating and establishing management prescriptions for stands as part of this Plan, opportunities to incorporate habitat corridors on the landscape is a long range land management objective.

Specific Species Management

Raptor Territories

Personnel conducting forest management activities have been instructed and offered special compensation incentive awards to identify active woodland raptor nest sites and defended territories. Raptor species included in this program are northern goshawk, red-shouldered hawk, sharp-shinned hawk, Cooper's hawk, broad-winged hawk, and merlin. When such sites and territories are identified, a plan to define how the area will be treated will be prepared. Information also will be supplied to the DNR's Natural Heritage Inventory when appropriate.

During the first year of this program, one award has been made. Additionally, a new bald eagle nest was reported (and subsequently an award given) and a red-tailed hawk nest was discovered. As regional populations of diurnal raptors change over time, raptor species may be added to or deleted from this list.

Habitat Relationships

Important small game species in the area include ruffed grouse, and American woodcock. The density of ruffed grouse is related directly to the composition and arrangement of cover types. Aspen stands with stem densities of 2,000-8,000 per acre provide good cover. Stands with densities in excess of 8,000 stems per acre are important as drumming, breeding, and brood habitat for ruffed grouse. Openings with a rich herbaceous ground cover are an important component of grouse habitat.

Woodcock require several distinct types of habitat, including small clearings, young second-growth hardwoods, dense stands of alders or young hardwoods on moist soil, and large openings. These habitat relationships will help guide management activities on these lands for these species.

Bald Eagle

The bald eagle is federally listed as threatened although this status may likely change in the near future. It is also listed as threatened in Michigan. In Wisconsin, its status

has been changed from threatened to special concern. Changes in its status reflect the expanding bald eagle population in the Upper Midwest.

Items contained in this Plan are designed to protect, and where possible, enhance habitat for the bald eagle. There are several active bald eagle territories on these lands.

The U.S. Fish and Wildlife Service has published guidelines for bald eagle management (Appendix A). The Wisconsin DNR has produced a bald eagle management guide for landowners (Appendix B). These measures should help protect bald eagle activities on these projects including nesting, feeding, and roosting. These agency guidelines will be followed and are incorporated in their entirety into this Plan.

Wisconsin Electric seeks to encourage continued eagle nesting on the project lands by preserving super canopy white and red pines that may serve as future nesting sites. Such trees would be removed only if they posed a serious threat to continued project operations. Eagles also have nested in aspens and because of beaver threat, two of the trees have been protected with wire to prolong their life and usefulness as eagle nest trees. The company will continue to explore ways to protect and enhance the eagle population on these projects.

Obtaining current eagle nest information on a annual basis is a critical factor in managing for nesting bald eagles. To document the location and status of bald eagle nests on project lands, WE, on an annual basis, will contact the Michigan and Wisconsin DNRs who coordinate statewide aerial surveys for eagle nests. Eagle nest information received from the DNRs is plotted on GIS land management plan maps and is used to assist planning and scheduling various future land management activities such as timber harvesting. Annual meetings are held with contract forestry personnel to review plans for the upcoming year. Presence of trees (nest or super-canopy) or areas to be avoided are noted during these meetings. Maps, harvest plans, and tree marking are done by professional foresters prior to any harvest activities, and this information is carefully and thoroughly relayed to those conducting the harvest to prevent inadvertent cutting of trees that are or may have importance to bald eagles.

Nest productivity data also will be requested from the agencies. These data will be examined to identify possible productivity problems. If a problem is identified, an attempt will be made to identify the cause of the problem so that remedial measures can be taken if necessary. A problem is defined as productivity dropping below a three year running average of 1.0 young per occupied nest or two consecutive years of zero production. As discussed in a section later in this Plan, bald eagles and other listed species will be discussed at the annual planning/consultation meetings held with the natural resources agencies.

If, in the future, neither the Michigan nor the Wisconsin DNR surveys these projects for bald eagle nests, WE will assume the responsibility to conduct the annual survey to locate any existing or new bald eagle nest sites on company lands, assuming the bald eagle remains a federally listed species. If the bald eagle is federally delisted, the company will continue to pursue bald eagle management activities on these projects as appropriate.

Gray Wolf

The eastern timber wolf is a subspecies of the gray wolf and is listed as endangered in all of the eastern United States, except Minnesota, where it is listed as threatened. The U.S. Fish & Wildlife Service recovery plan for the eastern timberwolf that was revised in 1992 sets forth recovery criteria. In addition to a stable or growing Minnesota wolf population, a combined Wisconsin-Michigan population of 100 wolves for five consecutive years is sufficient for the delisting process to begin.

With a Wisconsin wolf population numbering about 180, the delisting process is occurring in 1998 in Wisconsin, and work on federal delisting from endangered to threatened may begin in 1999.

While wolves have been known to travel across these project lands, there are no known wolf territories on these lands at this time. The company will consult and work with the DNRs on land management practices that might impact the area's wolf population as it continues to change.

Artificial Nesting Structures

To provide additional nesting sites for certain wildlife species, artificial nesting structures can be provided. At other locations on the company's hydroelectric lands, structures have been placed that are suitable for cavity-nesting ducks, eastern bluebirds/tree swallows/house wrens/black-capped chickadees/flying squirrels, bats, eastern phoebes, and osprey.

Project lands will be assessed periodically for opportunities to erect structures for the above-mentioned species. Locations that appear suitable and feasible will receive the appropriate structure. Landscapes do change in character with time, and habitats can become either favorable or unfavorable as site conditions, especially the vegetative cover, change. Wildlife populations change also over time. The degree of urgency to manage certain species also will change with changing population levels.

Locations where nesting structures are placed will be added to the GIS. These structures will be maintained as appropriate by the company, and their success monitored. Partnering opportunities with other organizations will be sought to assist

with this program. As noted for the bald eagle, the topic of artificial nesting structures will be an agenda item for the annual meetings with the agencies.

Threatened, Endangered & Sensitive Species

Opportunities to protect and enhance habitat for federal and state listed species will be discussed during the annual agency meetings. The status of listed species will be reviewed at these meetings to help determine if changes in management of these project lands is necessary. The general status of populations of non-listed wildlife species and their management also will be discussed at these meetings.

Wildlife Surveys

The topic of wildlife surveys will be included on the agenda for the annual meetings held with the natural resource agencies. The company is interested in cooperating with the agencies in conducting or funding wildlife studies, surveys, or inventories within project boundaries as appropriate, especially those focusing on listed species or those of special concern. At the current time, company staff are cooperating with the agencies by conducting some wildlife surveys even outside the project boundaries.

Because birds are excellent indicators and help reflect the condition of the vegetation of the projects, a breeding bird survey of the impoundment/river shorelines will be conducted every 3-5 years on each of the eight projects.

Planning/Consultation Meetings

As with many aspects involved in operating a hydroelectric project, the company believes that it is important to schedule annual planning/consultation meetings to discuss wildlife and forest management and other land-related activities, to discuss the events of the past year, to make plans for the future, and to decide what changes in project operation would be beneficial. Annual meetings with the natural resource agencies to discuss forestry activities have been held for the past several years and have been valuable for the agencies and WE. Wildlife issues have been included on the agenda in recent years.

Among the topics that typically are covered at these meetings are how the past year's efforts in managing company lands for wildlife and forestry resources have gone, management plans for the coming year (including new activities), a review of the status of threatened/endangered/sensitive species to determine any necessary changes to the Plan, and how any necessary information, including conducting wildlife surveys, will be obtained. Where instances of activities involving land disturbances arise during the

year that were not discussed at the previous annual consultation meeting, the agencies will be contacted and plans discussed.

Items covered in this Plan will be routinely included on the agenda and discussed at these meetings. This Plan will be reviewed in detail and updated as necessary or at least once every five years, with the first in-depth review occurring in the year 2005.

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Preliminary Recreation Plan - Draft

WILDERNESS SHORES SETTLEMENT AGREEMENT

WAY DAM/MICHIGAMME RESERVOIR, FERC NO. 1759
HEMLOCK FALLS PROJECT, FERC NO. 2074
LOWER PAINT PROJECT, FERC NO. 2072
PEAVY FALLS PROJECT, FERC NO. 1759
MICHIGAMME FALLS, FERC NO. 2073
TWIN FALLS PROJECT, FERC NO. 1759
KINGSFORD, FERC NO. 2131
BIG QUINNESEC FALLS, FERC NO. 1980

PRELIMINARY RECREATION PLAN

DRAFT

WISCONSIN ELECTRIC POWER COMPANY

WISCONSIN ELECTRIC POWER COMPANY
WILDERNESS SHORES SETTLEMENT AGREEMENT
SEPTEMBER 1, 1998

PRELIMINARY RECREATION PLAN

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Preliminary Recreation Plan
Wilderness Shores Settlement Agreement

SECTION I. PURPOSE

Introduction

The Wilderness Shores Settlement Agreement (WSSA) was negotiated between Wisconsin Electric and the Michigan Department of Natural Resources, Michigan Department of Environmental Quality, Michigan Department of Attorney General, Wisconsin Department of Natural Resources, Wisconsin Department of Administration, U.S. Fish and Wildlife Service, National Park Service, Michigan Hydro Relicensing Coalition, and River Alliance of Wisconsin prior to the Federal Energy Regulatory Commission (FERC) licensing process for the following projects:

Project Name	FERC Project No.
Way Dam and Michigamme Reservoir	1759
Peavy Falls	1759
Twin Falls	1759
Hemlock Falls	2074
Lower Paint	2072
Michigamme Falls	2073
Kingsford	2131
Big Quinnesec Falls	1980

Included in this Preliminary Plan is Wisconsin Electric's Wilderness Shores Management Policy, Accessibility Policy and Public Information and Education Policy as they pertain to these projects. Information regarding current facilities and proposed improvements of the recreation areas located on these project lands are also included.

Purpose and Objectives

The purpose of the Preliminary Plan is to provide information regarding WE's plans for operation, maintenance and enhancements of its recreation areas. The specific objectives of this Plan are:

- provide plans, drawings and construction schedule for the enhancements described in the WSSA;
- identify the entity responsible for operation and maintenance of the facilities and access areas;
- discuss how the facilities will consider the needs of persons with disabilities;
- provide FERC with information of existing and proposed recreation facilities for use in license issuance while allowing for specific design details to be worked out in the future (a final recreation plan will be submitted after license issuance).

SECTION II. RECREATION MANAGEMENT POLICIES

Wilderness Shores Management Policy

WE's current recreation management philosophy is to provide a "wilderness" experience as indicated by the fact that the recreation facilities on project lands are referred to as "Wilderness Shores". Structural improvements are intentionally maintained at minimum levels to discourage activities that would be contrary to a wilderness or semi-wilderness experience. Typical facilities at recreation areas include overnight camping, parking areas, vault toilets, picnic tables, fire rings, boat launches and canoe portages around the dams. A "Wilderness Shores" brochure is included in Exhibit A, which shows the location of WE's recreational areas.

Public Access Policy

WE has historically maintained a policy of allowing the public recreational access to project lands, with the exception of limited areas near the hydroelectric dam and generating facility that pose a potential safety or security hazard.

While WE continues to make incremental recreational improvements to its project lands in order to enhance recreational use and public access, the company is committed to providing wilderness management and working closely with both private recreation-oriented businesses and other public and quasi-public landowners to coordinate improvements and facilities. The objective of the management strategy is to protect the natural quality of the resources and provide public access to recreation lands consistent with WE's land management philosophy and commitment to environmental stewardship.

Accessibility Policy

WE's general policy on accessibility is to follow the guidelines in the publication entitled "Recreation Access Advisory Committee Recommendations for Accessibility Guidelines: Recommendations for Recreational Facilities and Outdoor Developed Areas" developed for the U.S. Architectural and Transportation Barriers Compliance Board, July 1994. WE believes that the federal guidelines applicable to public recreation lands represent a reasonable set of guidelines, and is consistent with FERC's philosophy of supporting federal procedures when applicable for project lands.

The philosophy of equal opportunity for persons with disabilities in recreation areas has been evolving. The concept reflects legislative advances and, most importantly, changing societal attitudes that have led to expanding equal opportunities.

WE endorses the philosophy adopted by the federal agencies regarding equal opportunity on recreational lands. The Access Board is the federal agency responsible for the development of design guidelines for accessibility.

> "Access to recreation facilities and outdoor developed recreation areas is a valuable right for people with and without disabilities. As the American with Disabilities Act Accessibility Guidelines (ADAAG) have ensured that places of public accommodation and the workplace will be accessible, these recommendations are the first step toward ensuring that beaches, golf courses, playgrounds, sports facilities, amusement parks, swimming pools, boat launch facilities, campgrounds, and trails, will be designed for accessibility. These unique sites are part of the fabric of life in America and will be accessible to people with disabilities." Recreation Access Advisory Committee Recommendations for Accessibility Guidelines: Recreational Facilities and Outdoor Developed Areas

Additionally, the recreation setting classifications have been combined into four basic categories: urban; natural; back-country (semi-primitive); and primitive.

> "Since researchers have long recognized that recreation settings and sites present inherent levels of difficulty or challenge, it follows that each recreation setting classification has an association expectation regarding the level of accessibility. As the level of the development and modification decreases along the spectrum, expectations of comfort, security, and accommodation for accessibility are also expected to diminish, while expectations of rusticity, challenge, and risk increase." Recreation Access Advisory Committee Recommendations for Accessibility Guidelines: Recreational Facilities and Outdoor Developed Areas

The four basic categories are described as:

- Urban areas: highly developed recreation setting characterized by substantially urbanized and modified natural environments. Recreation sites and opportunities are convenient. Experiencing natural environments, having challenges and risks afforded by the natural environment, and using outdoor skills are relatively unimportant

- Natural settings: moderately developed recreation setting characterized by natural appearing environments with equal probability of experiencing affiliation with other user groups and experiencing isolation from the sights and sounds of humans.

- Back-country (semi-primitive): minimally developed recreation setting characterized by predominantly natural-appearing environment, with interaction between visitors low. The recreation experience associated with these settings provides moderately high probability of isolation from the sights and sounds of humans

- Primitive areas: primarily undeveloped recreation sites and characterized by pristine and rugged, unmodified environments.

According to ADAAG, the term "accessible" is used to describe a site, building, facility, or portion thereof that complies with the ADA guidelines. According to Uniform Federal Accessibility Standards (UFAS), the term "accessible" describes a site, building, facility or portion thereof that "complies with these standards (UFAS) and ... can be approached, entered, and used by physically disabled people".

The accessibility levels applied to outdoor recreation sites are:

Easier Degree of Access

The general level of expected access to elements and spaces integrated into developed recreation sites or portions of sites. These are typically in urban/rural settings, or at sites managed to provide urban/rural recreation experiences, or at sites managed to provide an easier degree of access.

Moderate Degree of Access

The general level of expected access to elements and spaces integrated into moderately developed recreation sites or portions of sites. These are typically in natural settings, or at sites managed to provide natural recreation experiences, or at sites managed to provide a moderate degree of access.

Difficult Degree of Access

The general level of expected access to elements and spaces integrated into lesser developed recreation sites or portions of sites. These are typically in back county settings, or at sites managed to provide back country recreation experiences, or at sites managed to provide a difficult degree of access as defined by these guidelines.

Most Difficult Degree of Access

> The general level of expected access to elements and spaces integrated into lesser undeveloped recreation sites or portions of sites. These are typically in primitive settings, or at sites managed to provide primitive recreation experiences, or at sites managed to provide the most difficult degree of access.

Most recreation areas operated by WE meet the "Difficult Degree of Access" accessibility criteria. WE believes that since the Wilderness Shores recreation areas are minimally developed, that the degree of accessibility should be in direct proportion to maintain a natural-appearing environment. One exception to this is facilities at Kingsford Hydro Plant which includes the Cowboy Lake development operated by the City of Kingsford, Michigan.

WE acknowledges its responsibility to provide access to the disabled recreationist in accordance with the ADA. Therefore, WE will endeavor to meet the higher degree of accessibility as is practically achievable and compatible with the surrounding area.

Public Information and Education Program

WE believes it is important to provide information regarding its recreational facilities to the public. The "Wilderness Shores" brochure has been made available to the public for this purpose. As changes to recreation facilities are made, the brochure is updated accordingly. A copy of the brochure is included as Exhibit A. The "Wilderness Shores" brochure is available from WE, tourist information centers, DNR offices, Chambers of Commerce and local businesses such as bait shops, grocery stores, etc.

WE has located directional signage along the roadways in the various communities where Wilderness Shores recreation areas exist. These signs direct the public to the specific recreation areas. Using these signs the public can easily locate WE's recreation areas.

Located at each recreation area is signage identifying the area as part of a FERC licensed project and stating that the area is open to all without discrimination. An information board is also located at each area and a copy of the "Wilderness Shores" brochure is posted as well as other informational material.

Construction, Maintenance and Operation

WE is responsible for the operation, maintenance and construction of most of the project-related recreation facilities. Exceptions to this is the park operated by the City of Kingsford, Michigan, at the Kingsford Hydro Plant (FERC Project 2131) and boat launch operated by the Town of Florence, Wisconsin, located on the Twin Falls Impoundment (FERC Project 1759). Maintenance of the WE recreation facilities is provided from mid-May through September. The maintenance provided includes refuse removal, cleaning of vault toilets, mowing, maintenance of signage and other miscellaneous maintenance activities as required.

Coordinated Signage System

Michigan and Wisconsin Departments of Natural Resources have requested that signage directing visitors to WE's recreation areas be installed at major state and county road intersections. WE has attempted to upgrade existing signage by working with the Michigan Department of Transportation (MDOT) and Wisconsin Department of Transportation (WDOT) at access points along state highways. In the State of Michigan, entities MUST qualify for the Tourist Oriented Directional Signs (TODS) program to have signs placed at state highway intersections. WE's recreation areas do not qualify for signage under the TODS program. No new signs will be installed in Michigan on highways under MDOT jurisdiction. Existing signage will be left in place for as long as the State of Michigan will allow. WE has not been able to secure permission from WDOT to install signage at this writing. WE will continue to consult with WDOT, counties, townships and towns in both states to determine if new signs may be placed at major intersections as requested.

Signs Within the Recreation Areas

Sign locations are detailed on the facility maps. Appropriate materials, colors, sizing, placement and maintenance will ensure that the signs are clearly visible. International accessibility signs will be posted at appropriate parking spaces and restrooms. International accessibility signs will conform to ADA standards.

Erosion at Public Use Sites

Public use sites are routinely inspected for erosion problems. Erosion problems are investigated and steps taken to abate continuing problems.

SECTION III. DISCUSSION ON ACCESSIBLE FACILITIES

WE has developed a comprehensive, basin-wide approach to recreational needs. The projects included in the WSSA will afford persons with disabilities the opportunity to enjoy the "Wilderness Shores".

The recreation areas at these projects, primarily located in a low population areas, will provide a range of recreation opportunities to serve the public. While balancing accessibility with the preservation of the outdoor recreation environment, WE's objective is to create multiple recreational opportunities for the disabled recreationist.

Opportunities will include boat launching facilities, impoundment fishing and overnight camping. Barrier-free toilets and trash receptacles will be provided at these locations. Leisure activities, including picnicking, river viewing and nature watching can also be accommodated at any of the recreation areas.

The above facilities should provide adequate opportunities for the disabled.

WE will monitor the usage of barrier-free facilities and take the appropriate action if facilities are not adequate.

SECTION IV. PROJECT SPECIFIC RECREATION FACILITIES

Recreation areas that provide wilderness overnight camping include individual campsites, each with a fire ring and picnic table. Shared facilities at these recreation areas include vault toilets, refuse barrels and a public information board.

Boat launching facilities include concrete or graveled boat ramps, parking area, vault toilets, refuse barrels and a public information board.

An accessible boat launching facility will include a courtesy pier, parking area with accessible space, accessible toilet, trash receptacle and trails.

An accessible fishing area will include barrier-free flat-outs or fishing pier, parking area with accessible space, accessible toilet, trash receptacle and trails.

A. WAY DAM AND MICHIGAMME RESERVOIR PROJECT, FERC NO. 1759

Regional Geographic Location

The Michigamme Reservoir, formed by the Way Dam Project, is the uppermost impoundment on the WE system in the Menominee River Basin and also the largest impoundment in the system. Way Dam is located approximately 33 miles from Iron Mountain, Michigan and 8 miles northeast of Crystal Falls, Michigan. The nearest population center is Marquette, Michigan (population 21,977; source: 1990 Census) located approximately 70 miles northeast of the project.

The largest community in the immediate vicinity of the project is Crystal Falls, Michigan, located 8 miles southwest, with a population of 1,922 (source: 1990 Census).

Recreation Area Descriptions and Changes to Existing Facilities

Public access to the Way Project is provided at eight recreation areas on the reservoir, plus a ninth area located below the dam and powerhouse. The nine Recreation Areas are 13, 14, 16, 17, 18, 19, 20, 29 and Site 26 is located below the dam. A tenth recreation area, Mountain Lake Group Campground, is available for public use by reservation only.

Recreation Area 13

Recreation Area 13 is located on the south side of the Michigamme Reservoir approximately 7 miles west of Channing, Michigan. Current facilities include four campsites and a graveled boat launch.

There will be no changes to existing facilities.

Recreation Area 14

Recreation Area 14 is located on the east side of the Michigamme Reservoir approximately 6 miles west of Channing, Michigan. Current facilities include three campsites and a graveled boat launch.

There will be no changes to existing facilities.

Recreation Area 16

Recreation Area 16 is located on the north side of the Michigamme Reservoir approximately 17 miles north of Crystal Falls, Michigan. This most remote recreation area is maintained as a graveled boat launch facility only.

There will be no changes to existing facilities.

Recreation Area 17

Recreation Area 17 is located on the northwest side of the Michigamme Reservoir at the mouth of the Deer River where it enters the Michigamme Reservoir, approximately 10 miles north of Crystal Falls, Michigan. Current facilities include four campsites and a graveled boat launch.

The overnight camping facilities will be eliminated.

Recreation Area 18

Recreation Area 18 is located on the northwest side of the Michigamme Reservoir approximately 8 miles north of Crystal Falls, Michigan. Current facilities include three campsites and a graveled boat launch.

This recreation area will be closed entirely.

Recreation Area 19

Recreation Area 19 is located on the west side of the Michigamme Reservoir approximately 7 miles north of Crystal Falls, Michigan. Current facilities include four campsites, drinking water and a concrete pad boat launch.

An accessible boat launching facility will be developed (if feasible). The camping area will be redeveloped with additional sites added.

Recreation Area 20

Recreation Area 20 is located on the south side of the Michigamme Reservoir approximately 9 miles west of Channing, Michigan. Current facilities include 22 campsites, drinking water and a concrete pad boat launch with parking area.

An accessible boat launch facility will be developed.

Recreation Area 26

Recreation Area 26 is located on the south side of the Michigamme River immediately below Way Dam approximately 11 miles west of Channing, Michigan. Current facilities include four campsites and a concrete pad boat launch.

Camping will be eliminated and the area developed into a day use facility with accessible fishing areas.

Recreation Area 29

Recreation Area 29 is located on the east side of the Michigamme Reservoir approximately 4 miles north of Channing, Michigan. The area is maintained as a graveled boat launch facility.

There will be no changes to existing facilities.

Mountain Lake Group Campground

The Mountain Lake Group Campground is located on the south side of the Michigamme Reservoir approximately 8 miles west of Channing, Michigan. Current facilities include two five-site camping areas with drinking water.

There will be no changes to existing facilities.

B. HEMLOCK FALLS PROJECT, FERC NO. 2074

Regional Geographic Location

Hemlock Falls impoundment is located on the Michigamme River, four miles north of M-69, 5 miles east of Crystal Falls, Michigan. The nearest population center is Marquette, Michigan (population 21,977; source: 1990 Census) located approximately 70 miles northeast of the project.

The largest community in the immediate vicinity of the project is Crystal Falls, Michigan, with a population of 1,922 (source: 1990 Census).

Recreation Area Descriptions and Changes to Existing Facilities

Public access to the Hemlock Falls impoundment is provided at Recreation Areas 12 and 21 and also by Recreation Area 26 (see Way Dam), located immediately below Way Dam.

Recreation Area 12

Recreation Area 12, providing tailwater access, is located immediately below Hemlock Falls Dam. Current facilities include a graveled boat launch.

The launch will be maintained as an accessible small boat launch with barrier-free flat-outs and trails.

Recreation Area 21

Recreation Area 21 is located immediately above Hemlock Falls Dam. Current facilities include a concrete pad boat launch,

There will be no changes to existing facilities.

Tailwater Fishing Access

The access road gate to the powerhouse will be modified to allow pedestrian traffic and the area maintained for tailwater fishing access.

C. LOWER PAINT PROJECT, FERC NO. 2072

Regional Geographic Location

The Lower Paint Project is located on the Paint River upstream from the Brule impoundment, approximately 11 miles southeast of Crystal Falls, Michigan. The nearest population center is Marquette, Michigan (population 21,977; source: 1990 Census) located approximately 70 miles northeast of the project.

The largest community in the immediate vicinity of the project is Crystal Falls, Michigan, with a population of 1,922 (source: 1990 Census).

Recreation Area Descriptions and Changes to Existing Facilities

Public access to the Lower Paint impoundment is provided by Recreation Area 22.

Recreation Area 22

Recreation Area 22 is located on the east side of the Lower Paint impoundment immediately above the Lower Paint Dam and Canal. Current facilities include three campsites and a graveled boat launch.

There will be no changes to existing facilities. Plans for possible launching improvements will be addressed by the Team in the final recreation plan.

Shoreline Fishing Area

A shoreline fishing area will be developed either above or below the diversion canal with location to be determined by the Team.

Horserace Rapids

Horserace Rapids is located at the upper end of the Paint Pond arm of the Brule impoundment. The area is approximately three miles east of Highway 2/141. Facilities at Horserace Rapids include a parking area, vault toilet and trail with steps descending approximately 100 feet to the shoreline.

A put-in and primitive camping site will be developed by WE on MDNR land with MDNR responsible for the operation and maintenance.

D. PEAVY FALLS PROJECT, FERC NO. 1759

Regional Geographic Location

The Peavy Falls Reservoir (Peavy Pond) is located above the Michigamme Falls impoundment. Peavy Falls is located approximately 19 miles from Crystal Falls and 9 miles south of M-69, 3 miles from Sagola, Michigan. The nearest population center is Marquette, Michigan (population 21,977; source: 1990 Census) located approximately 60 miles northeast of the project.

The largest communities in the immediate vicinity of the project are Iron Mountain and Kingsford, Michigan, with a combined population of 14,005 (source: 1990 Census).

Recreation Area Descriptions and Changes to Existing Facilities

Public access to the Peavy Falls Project is provided at three recreation areas on the reservoir - Recreation Areas 9, 10 and 27.

Recreation Area 9

Recreation Area 9 is located immediately above the Peavy Falls Dam on the east side of the reservoir approximately 9 miles south of M-69, 3 miles from Sagola, Michigan. Current facilities include four campsites and a concrete pad boat launch.

An accessible boat launch facility will be developed. An impoundment fishing area will be developed with facilities to be determined by the Team.

Powerhouse Deck Fishing

The current powerhouse deck area will be opened to fishing. A small parking area will be available at this location, along with overflow parking and a toilet constructed above the project. New security measures will be installed to protect the hydro plant and nearby substation.

Recreation Area 10

Recreation Area 10 is located on the north side of Peavy Pond, approximately 5 miles south of M-69, 7 miles from Sagola, Michigan. Current facilities include four campsites and a concrete pad boat launch.

There will be no changes to existing facilities.

Recreation Area 27

Recreation Area 27 is located on the north side of Peavy Pond approximately 5 miles south of M-69, 7 miles from Sagola, Michigan. Current facilities include four wilderness overnight campsites, drinking water and a concrete pad boat launch.

An accessible boat launch will be developed.

E. MICHIGAMME FALLS, FERC NO. 2073

Regional Geographic Location

The Michigamme Falls Project is located on the lower Michigamme River. The dam is .2 miles above the confluence of the Michigamme and Brule Rivers as they join to form the Menominee River. Michigamme Falls is located approximately 13 miles southwest of Sagola, Michigan. The nearest population center is Marquette, Michigan (population 21,977; source: 1990 Census) located approximately 60 miles northeast of the project.

The largest communities in the immediate vicinity of the project is Iron Mountain and Kingsford, Michigan, with a combined population of 14,005 (source: 1990 Census).

Recreation Area Descriptions and Changes to Existing Facilities

Public access to the Michigamme Falls impoundment is provided by Recreation Area 8.

Recreation Area 8

Recreation Area 8 is located above the Michigamme Falls Dam on the east side of the impoundment, adjacent to the dam. Current facilities include four campsites and a concrete pad boat launch.

Camping will be eliminated and the area developed as a day use fishing and picnic area. An accessible boat launch will be provided.

Tailwater Fishing Area

A tailwater area for fishing including a parking area, vault toilet and a carry-in boat launch will be developed. The Team will determine level of accessibility.

F. TWIN FALLS PROJECT, FERC NO. 1759

Regional Geographic Location

The Twin Falls impoundment is a heavily used impoundment located 5 miles north of Iron Mountain, Michigan. The nearest population center is Green Bay, Wisconsin (population 96,466; source: 1990 Census) located approximately 95 miles south of the project.

The largest communities in the immediate vicinity of the project are Iron Mountain and Kingsford, Michigan, with a combined population of 14,005 (source: 1990 Census).

Recreation Area Descriptions and Changes to Existing Facilities

Much of the shoreline is privately owned and there are numerous private homes, particularly on the upper end of the impoundment.

Vagabond Park

Florence County, Wisconsin, operates Vagabond Park, which is located on the Wisconsin side of the Menominee River approximately one mile upstream from the dam. The park is located on land leased to Florence County by Wisconsin Electric. An accessible boat launch facility, funded jointly by Florence County and Wisconsin Electric, was constructed in 1993. This facility replaced launching facilities formerly located at Recreation Area 7.

An access trail from the existing parking area will be constructed to connect to the existing paved surface (the causeway). Several flat-outs will be constructed along this area.

Recreation Area 7

Recreation Area 7, the only WE recreational facility on the Twin Falls impoundment, is located one mile above the Twin Falls Dam and five miles north of Iron Mountain, Michigan. The graveled access area is maintained as a winter access for ice fishing. Parking for this area is along the roadway shoulder.

There will be no changes to existing facilities.

Tailwater Fishing Area

Facilities for an accessible tailwater fishing area will be constructed.

G. KINGSFORD, FERC NO. 2131

Regional Geographic Location

The Kingsford impoundment is one of the most developed impoundments on the upper Menominee River. The Michigan shoreline is mostly developed with shoreline residences. The southern part of the impoundment shoreline on the Michigan side is in the City of Kingsford, Michigan. The Kingsford Dam is located in the City of Kingsford, Michigan, with a population of 5,480 (source: 1990 Census). The nearest population center is Green Bay, Wisconsin (population 96,466; source: 1990 Census) located approximately 90 miles south of the project.

Recreation Area Descriptions and Changes to Existing Facilities

There is heavy boating use on the Kingsford impoundment, particularly by recreational boaters. The Kingsford impoundment is served by Cowboy Lake Park, which is located in the City of Kingsford and Recreation Area 5, which is located on the lower Pine River approximately three miles south of Spread Eagle, Wisconsin.

Recreation Area 5

Recreation Area 5 is located on the lower Pine River approximately .5 miles from the mouth of the river. The area is approximately three miles south of Highway 2 at Spread Eagle, Wisconsin. Current facilities include a graveled boat launch and parking area. Recreation Area 5 is identified in Whitewater/ Quietwater - A Guide to Wild Rivers of Wisconsin as the designated canoe takeout point for the lower section of the Pine River.

The site will be maintained as a primitive site with a carry-in boat launch.

Recreation Area 25

Recreation Area 25 is a fully improved recreation area that is managed and operated by the City of Kingsford as part of a municipal park, Cowboy Lake Park. The park is partially located on project land leased to the City by Wisconsin Electric.

Facilities at Cowboy Lake Park include play areas, swimming beach, bathhouse, drinking water, shelter, concrete pad boat launch and toilets. There is also an accessible fishing platform.

An accessible boat launch, in cooperation with the City of Kingsford, will be provided. Discussions with the City of Kingsford and the Team will be held to determine the final plans.

Tailwater Fishing Area

An accessible tailwater fishing area will be developed along the Michigan shoreline.

H. BIG QUINNESEC FALLS, FERC NO. 1980

Regional Geographic Location

The Big Quinnesec Falls Project is located approximately 1.5 miles from the cities of Iron Mountain and Kingsford, Michigan, with a combined population of 14,005 (source: 1990 Census). The nearest population center is Green Bay, Wisconsin (population 96,466; source: 1990 Census) located approximately 90 miles south of the project.

Recreation Area Descriptions and Changes to Existing Facilities

Big Quinnesec impoundment is a relatively deep impoundment with steeply sloping sides. Because of the these steep slopes around most of the impoundment, shoreline recreational improvement opportunities are limited. The only WE recreation area on the Big Quinnesec impoundment is Recreation Area 6, which is located on the Michigan side approximately .3 miles upstream from the dam. Additional access to the impoundment is available from a boat launch that is owned and maintained by the Town of Aurora, Wisconsin, which is located 3 miles upstream from the dam. Wisconsin Electric provided funding toward the development of this boat launch.

Recreation Area 6

Recreation Area 6 is located approximately 1.5 miles from the City of Kingsford, Michigan on Hydraulic Falls Road. Current facilities include a concrete pad boat launch and parking area.

The area will be developed with an accessible boat launch including impoundment fishing location.

An area downstream from the warehouse location will be developed into a fishing area with level of accessibility determined by the Team.

I. MENOMINEE RIVER CANOE TRAIL

WE will develop, in consultation with the Team and in cooperation with the NPS and other private or public recreation organizations, a canoe trail on the Michigamme and Menominee Rivers to include a review of canoe portage routes; portage route signage; identification of campsites or other overnight accommodations; hiking trails; informational or historic markers; water level information; and initial development of a canoe trail brochure.

SECTION V. WSSA RECREATION PLAN

Section 6 of the WSSA requires WE to include certain provisions in the Recreation Plans for the projects covered by this settlement. Section VI of this Plan outlines recreation facilities required by the WSSA.

Consistent with the Settlement, WE will also hold annual meetings with the Team (consisting of parties who negotiated this settlement). Discussion items will include facility modifications, future development and review of O&M of the recreational facilities. Additionally, the recreation program will be reviewed at six year intervals to coincide with the submittal of the FERC Form 80.

The design and materials proposed for construction of the recreation facilities are compatible with the project's semi-wilderness and primitive character. Signs, toilets, portages and other facilities are designed to be rustic in style so as to fit into the area's natural setting. All facilities will be in conformance with the Recreation Access Advisory Committee Recommendations for Accessibility Guidelines: Recreational Facilities and Outdoor Developed Areas. All applicable federal, state and local permits will be acquired.

Construction Schedule

The work described in Section VI will be completed within four years of FERC approval of the Final Recreation Plan. The Menominee River Canoe Trail will be completed within five years of FERC approval of the Final Recreation Plan.

WAY PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 13	Existing	4	4	4	x		1		x		x											
	Proposed	4	4	4	x		1		x		x											
Site 14	Existing	3	3	3	x		2		x		x											
	Proposed	3	3	3	x		2		x		x											
Site 16	Existing										x			x								
	Proposed										x			x								
Site 17	Existing	4	4	4	x		2		x		x											
	Proposed				x		1		x		x			x								
Site 18	Existing	3	3	3	x		1		x		x											
	Proposed																					
Site 19	Existing	4	4	4	x		2		x	x		x										
	Proposed	4	4	4		x		2	x	x		x	x		x							
Site 20	Existing	22	22	22	x		6		x	x		x		x								
	Proposed	22	22	22		x		6	x	x		x			x							
Site 26	Existing	4	4	4	x		1		x			x										
	Proposed					x		1	x			x			x	x		x				
Site 29	Existing				x		1		x		x											
	Proposed				x		1		x		x											
Mountain Lake	Existing	2-5 ea	2	10	x		2		x	x				x								
	Proposed	2-5 ea	2	10	x		2		x	x				x								
Canoe Portage	Existing																x					
	Proposed																x					
Impoundment Fishing Proposed		An impoundment fishing area will be added if the Team can find a feasible design and location to accommodate the fluctuating water levels.																				
Bridge Access Proposed		Foot traffic access to the bridge and lower half of the island.																				
Camping Proposed		Camping area at Site 19 will be redeveloped and include additional campsites to maintain a total of 40 on project.																				

Fig. 1

Fig. 2

HEMLOCK FALLS PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 12	Existing				x		1		x		x			x								
	Proposed					x		1	x		x				x	x						
Canoe Portage	Existing																					
	Proposed																x					
Powerhouse Access Proposed		Access to the powerhouse will be modified to allow pedestrian traffic. An area will be maintained for tailwater fishing access.																				

Fig. 3

LOWER PAINT PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 22	Existing	3	3	3	x		2		x		x											
	Proposed	3	3	3	x		2		x		x	Future										
Horserace Rapids	Existing						1							x								
	Proposed	1					1							x			x					
Canoe Portage	Existing																x					
	Proposed																x					
Shoreline Fishing Proposed		A shoreline fishing area will be developed either above or below the diversion canal with location to be determined by the Team.																				

Fig. 4

PEAVY FALLS PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-in and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 9	Existing	4	4	4	x		2		x			x		x								
	Proposed	4	4	4		x		2	x			x	x		x							
Site 10	Existing	4	4	4	x		2		x			x										
	Proposed	4	4	4	x		2		x			x										
Site 27	Existing	4	4	4	x		2		x	x		x		x								
	Proposed	4	4	4		x		2	x	x		x	x		x							
Canoe Portage	Existing	4	4			x		2		x			x				x					
	Proposed																x					
Fishing Access Proposed		The powerhouse deck area will be opened to fishing.																				
Impoundment Fishing Area Proposed		The Team to determine facilities to be located at Site 9.																				

Fig. 5

MICHIGAMME FALLS PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 8	Existing	4	4	4	x		2		x			x		x								
	Proposed					x		2	x			x	x		x			x				
Canoe Portage	Existing																x					
	Proposed																x					
Tailwater Fishing Access Proposed		The Team will determine the level of accessibility.																				

Fig. 6

TWIN FALLS PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Vagabond Park	Existing				x		1					x	x	x								
	Proposed					x		1							x	x						
Site 7	Existing				x		1				x											
	Proposed				x		1				x											
Canoe Portage	Existing																x					
	Proposed																x					
Tailwater Fishing Area	Proposed					x		1							x	x						

Fig. 7

KINGSFORD PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 5	Existing				x						x			x								
	Proposed				x									x					x			
Site 25	Existing				x					x		x	x	x		x				x	x	x
	Proposed					x				x		x	x		x	x		x		x	x	x
Canoe Portage	Existing																x					
	Proposed																x					
Tailwater Fishing Access Proposed		An accessible tailwater fishing area will be developed along the Michigan shoreline.																				

Fig. 8

BIG QUINNESEC FALLS PROJECT		Campsites	Fire Rings	Picnic Tables	Refuse Barrels	Accessible Refuse Barrels	Vault Toilets	Accessible Vault Toilets	Public Information Board	Drinking Water	Graveled Boat Launch	Concrete Boat Launch	Courtesy Pier	Parking Area	Parking Area w/Barrier Free Space	Barrier-Free Flat-Outs	Canoe Portage Put-In and Take-Out	Day Use Fishing / Picnic Area	Carry In Launch	Play Area	Swimming Beach / Bathhouse	Shelter
Site 6	Existing				x				x			x		x								
	Proposed					x		1	x			x	x		x							
Aurora Boat Launch	Existing				x		1					x										
	Proposed				x		1					x										
Canoe Portage	Existing																x					
	Proposed																x					
Tailwater Fishing Proposed		An area downstream from the warehouse location will be developed into a fishing area																				

LIST OF EXHIBITS

Exhibit A	Wilderness Shores Brochure
Exhibit B	Toilet Design and Vault Cover
Exhibit C	Courtesy Pier Specifications
Exhibit D	Miscellaneous Amenities
Exhibit E	Michigamme Reservoir-Recreation Area 19
Exhibit F	Michigamme Reservoir-Recreation Area 20
Exhibit G	Way Dam-Recreation Area 26
Exhibit H	Hemlock Falls-Recreation Area 12
Exhibit I	Hemlock Falls Tailwater Access
Exhibit J	Lower Paint Shoreline Fishing
Exhibit K	Peavy Falls-Recreation Area 9
Exhibit L	Peavy Falls-Recreation Area 27
Exhibit M	Peavy Falls Tailwater Access
Exhibit N	Michigamme Falls-Recreation Area 8
Exhibit O	Twin Falls Impoundment Fishing
Exhibit P	Twin Falls Tailwater Access
Exhibit Q	Kingsford Tailwater Access
Exhibit R	Big Quinnesec Falls-Recreation Area 6
Exhibit S	Big Quinnesec Falls Tailwater Access

EXHIBIT A
Wilderness Shores Brochure

Wisconsin Electric

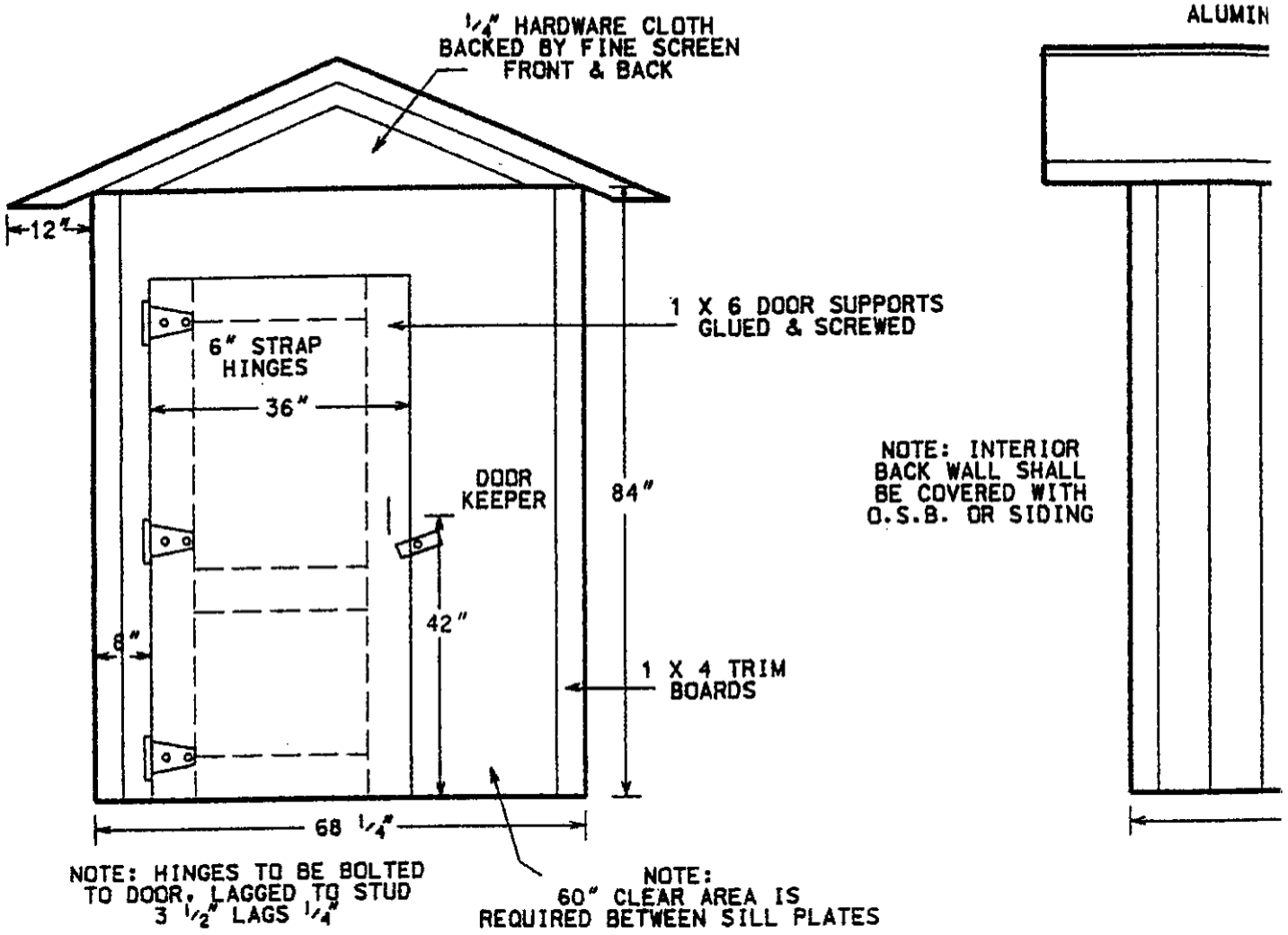
EXHIBIT B
Toilet Design and Vault Cover

Wisconsin Electric ——————————————→

C

B

A



FRONT ELEVATION

S

REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D

MICROFILM

DRAWN

DEC 8

CHECKED

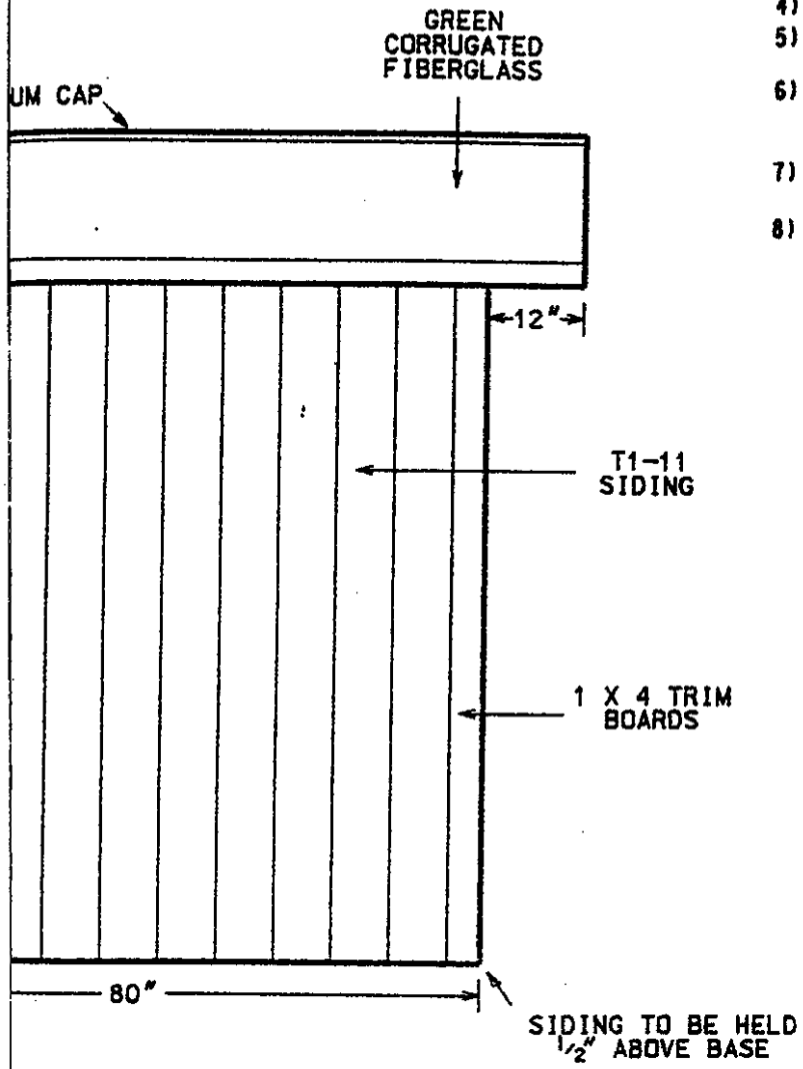
APPROVED

LEVEL USAGE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 4

2 1

NOTES:

1) WALLS SHALL BE CONSTRUCTED USING 2 X 4'S 16" O.C.
2) ROOF SHALL CONSIST OF A 2" X 6" RIDGE BOARD AND 2 X 4 RAFTERS 24" O.C. WITH SUFFICIENT BRACING AND NAILING FOR ROOF.
   A) A TRUSSED RAFTER SYSTEM MAY BE USED IN PLACE OF RAFTERS, RIDGE BOARD AND CEILING JOIST.
   B) RAFTERS MAY BE INSTALLED PARALLEL TO EXTERIOR WALL TO PROVIDE NECESSARY SUPPORT AND NAILING.
3) ALL SILL PLATES SHALL BE MADE OF 'TREATED' 2 X 4'S.
4) DOOR SHALL HAVE A SPRING TO AID IN CLOSING DOOR.
5) A LEVER OPERATED LATCH SHALL BE INSTALLED SO PRIVY MAY BE LOCKED FROM INSIDE.
6) ADDITIONAL PLYWOOD BACKING BOARDS SHALL BE INSTALLED ON ONE INTERIOR WALL AS INSTRUCTED SO HANDICAP RAILS MAY BE INSTALLED.
7) GRAB RAILS PROVIDED BY WISCONSIN ELECTRIC SHALL BE INSTALLED ACCORDING TO UFAS SPECIFICATIONS.
8) ANY CHANGES FROM DESIGN SPECIFICATIONS MUST BE APPROVED BY WISCONSIN ELECTRIC.



IDE ELEVATION

NO.

WISCONSIN ELECTRIC

BARRIER-FREE TOILET
WISCONSIN ELECTRIC
RECREATION AREAS

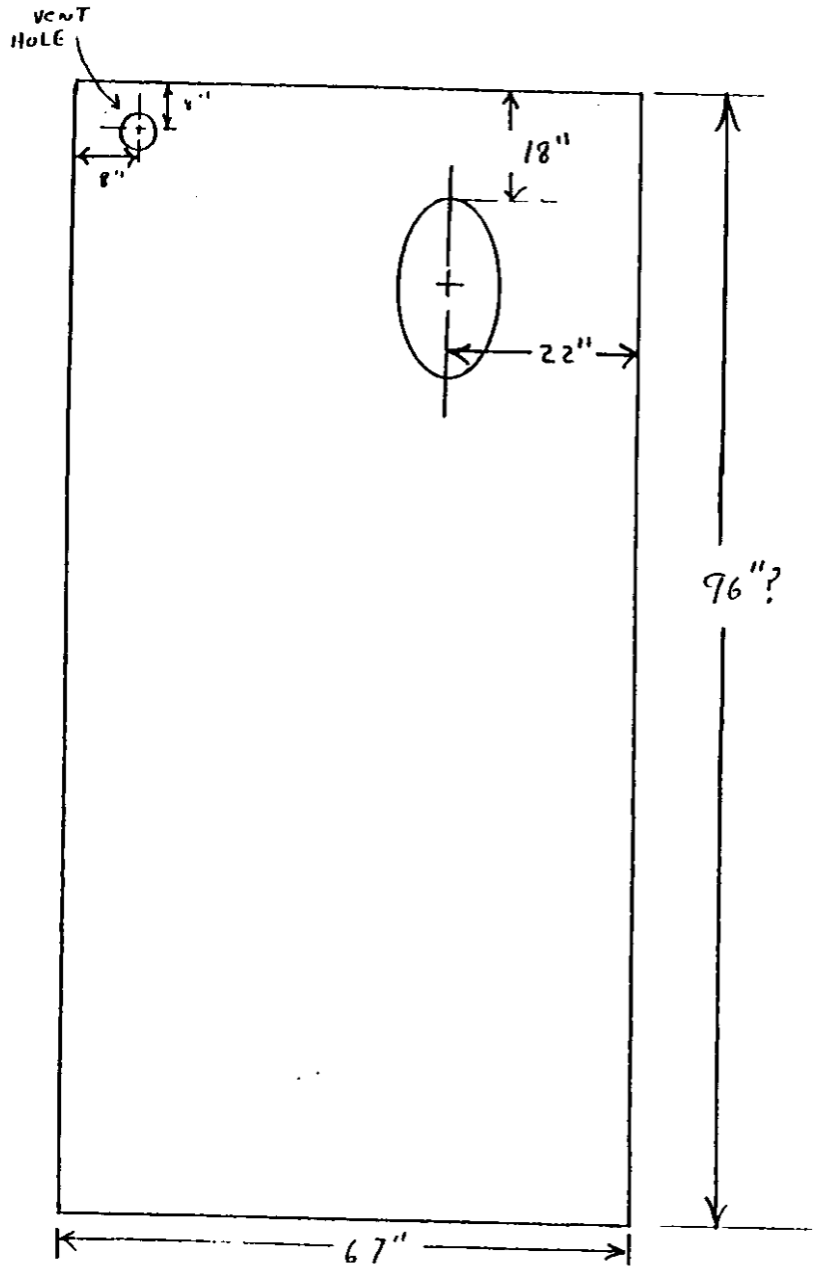
DATE	PROJECT NO.
22/98	
DATE	ACTIVITY NO.
DATE	SCALE

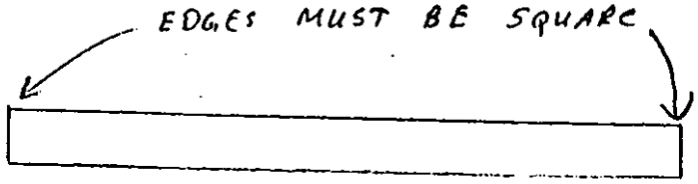
CGS NO. 68045

B

WAS:

49 50 51 52 53 54 55 56 57 58 59 60 61 62 63



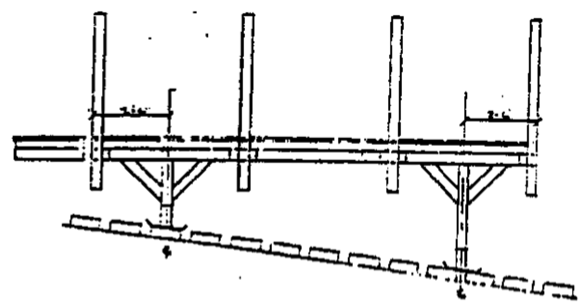


W. E. P. CO.
VAULT COVER
RISER LOCATI

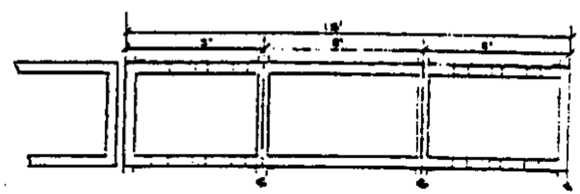
EXHIBIT C
Courtesy Pier Specifications

Wisconsin Electric ——————————————→

FOR DETAILS SEE SHEET 1 OF 2
STANDARD 40' FOOT
SKID PIER



SKID PIER DETAIL



STRUCTURAL TUBE FRAME WITH ... ANGLE ...
16' SECTION

REVISIONS	APPROVED BY	STATE OF MICHIGAN DEPARTMENT OF NATURAL RESOURC WATERWAYS DIVISION

d:/hydro/misc/skidc.dgn

REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D	MICROFILM NO.
—		d:/hydro/misc/skidc.dgn					
							DRAWN DA
							CHECKED DAT
							APPROVED DAT

LEVEL USAGE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 5

2 1

C

B

STANDARD 30 FOOT SKID PIER

WISCONSIN ELECTRIC

PROJECT NO.

ACTIVITY NO.

SCALE

CGS NO.

SPECIFICATIONS

SKID PIER

B

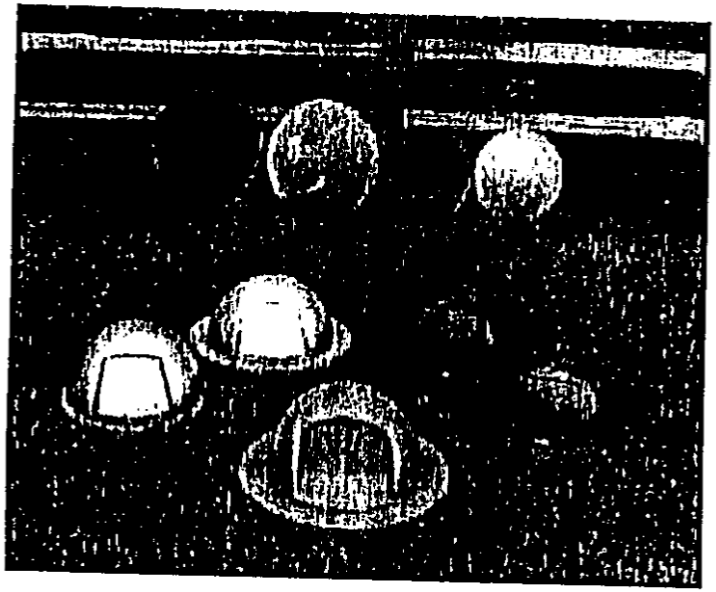
WAS:

51 52 53 54 55 56 57 58 59 60 61 62 63

EXHIBIT D
Miscellaneous Amenities

Wisconsin Electric ——————————————→

Pilot Rock Trash Can Covers and Dome Hatch Lids for Barrels and Trash Cans.



back

Model TRH Lid and Mounting Options...

Pilot Rock Trash Can Covers and Dome Hatch Lids for Barrels and Trash Cans.

click for expanded view

With so many lids and mounts available, the TRH's are especially versatile.

Lids

Pilot Rock offers a wide variety of lids for all models of Trash Receptacle Holders. Flat and domed trash lids are available. Domed lids can be galvanized, painted or plastic. Flat lids are galvanized or painted. Recycling lids are also available to help you collect cans and plastic bottles. The selection is diverse. You really need our catalog to see it all!

Model M-32/17/PA/S Wheelchair Accessible Firering with Multilevel Cooking Grate.

Wheelchair Accessible Products

Wheelchair Accessible Firerings...

Model M-32/17/PA/S Wheelchair Accessible Firering with Multilevel Cooking Grate.

click for expanded view

Two firering models are designed to provide access for disabled individuals who use a wheelchair and have reasonable use of their upper body.

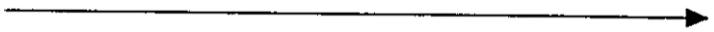
Model M-32/17/PA/S Firering

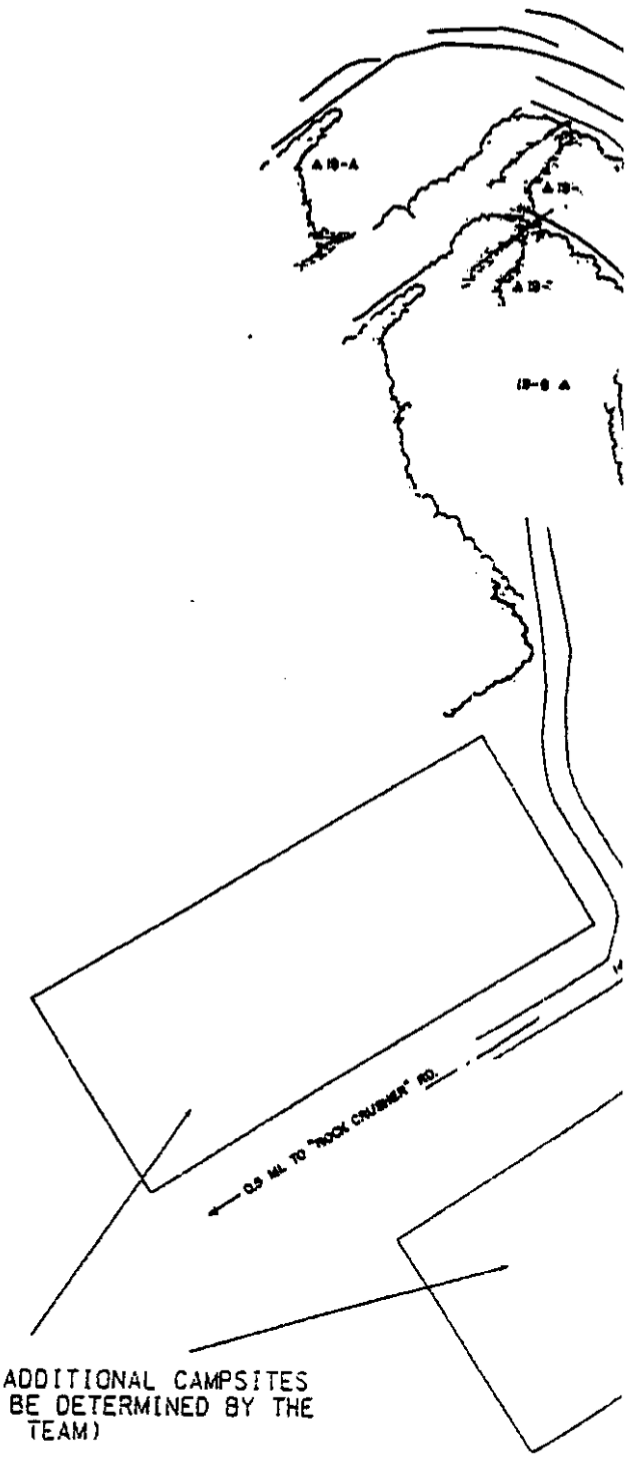
This firering features a flat panel at the rear of the ring which allows the wheelchair to use a side approach to park adjacent to the long side of the cooking grate. The cooking grate has a four level adjustment range above ground level from 19" to 24". The grate level is changed via adjustment slots on the side heat panels which shield the two public use type spring grips from the heat of the fire. The cooking grate can be adjusted with only one hand by "walking" it up or down and adjusting one side at a time.

The firering is filled to about 10" above ground level with course granular fill material to provide an elevated fire building surface. Drain/draft holes are provided around the perimeter at the fire building level for water runoff and fire draft.

The ring is flanged along all edges to provide a more rigid assembly and eliminate the vertical edge of the ring for safety.

EXHIBIT E
Michigamme Reservoir
Recreation Area 19

Wisconsin Electric 



LOCATION OF ADDITIONAL CAMPSITES
(LOCATION TO BE DETERMINED BY THE TEAM)

d:/hydro/wy/site19c.dgn

MICROFILM N

DRAWN

CHECKED

APPROVED

REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D

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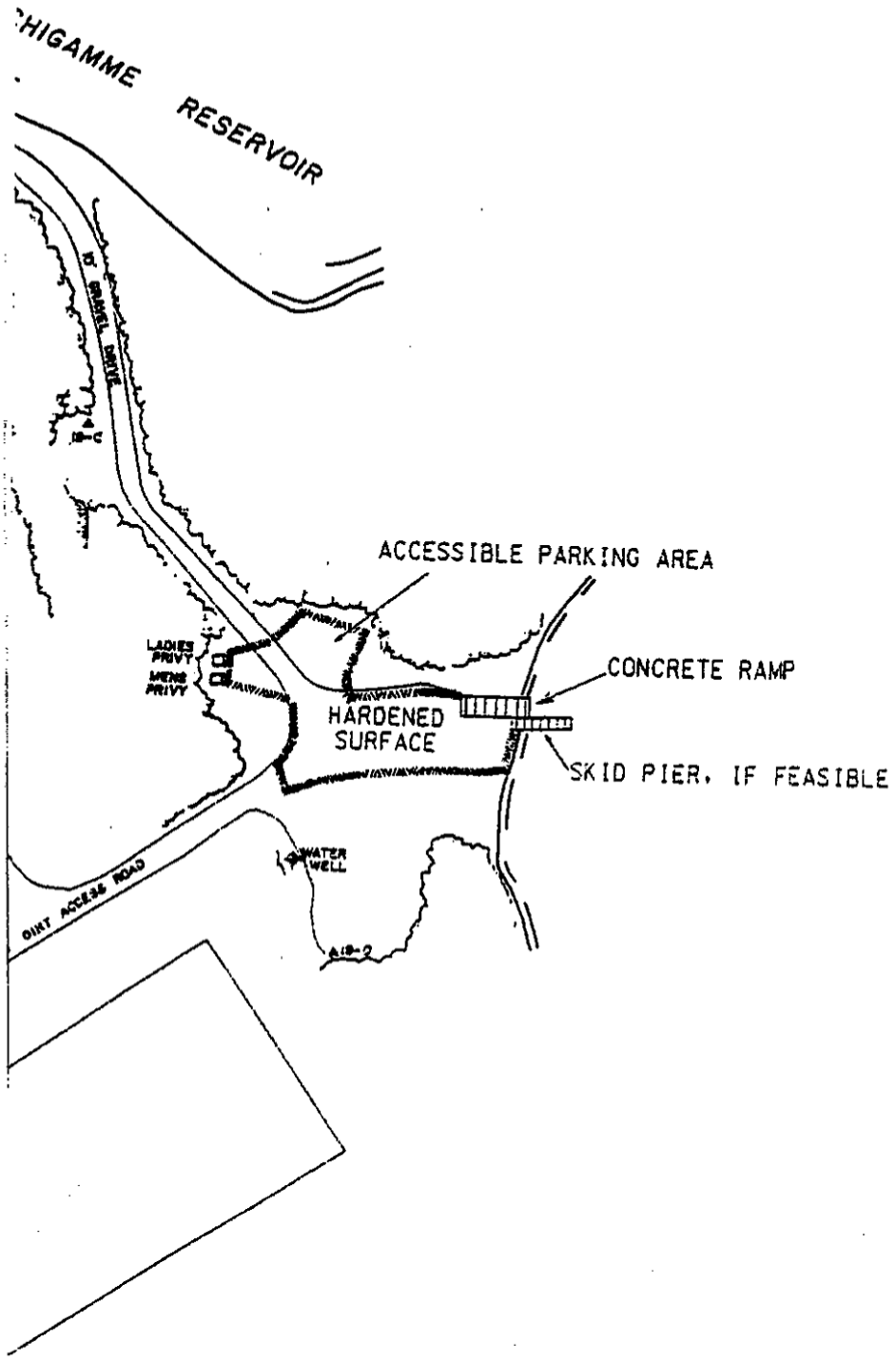


WISCONSIN ELECTRIC

RECREATION AREA 19

MICHIGAMME RESERVOIR

CGS NO.

PROJECT NO.

ACTIVITY NO.

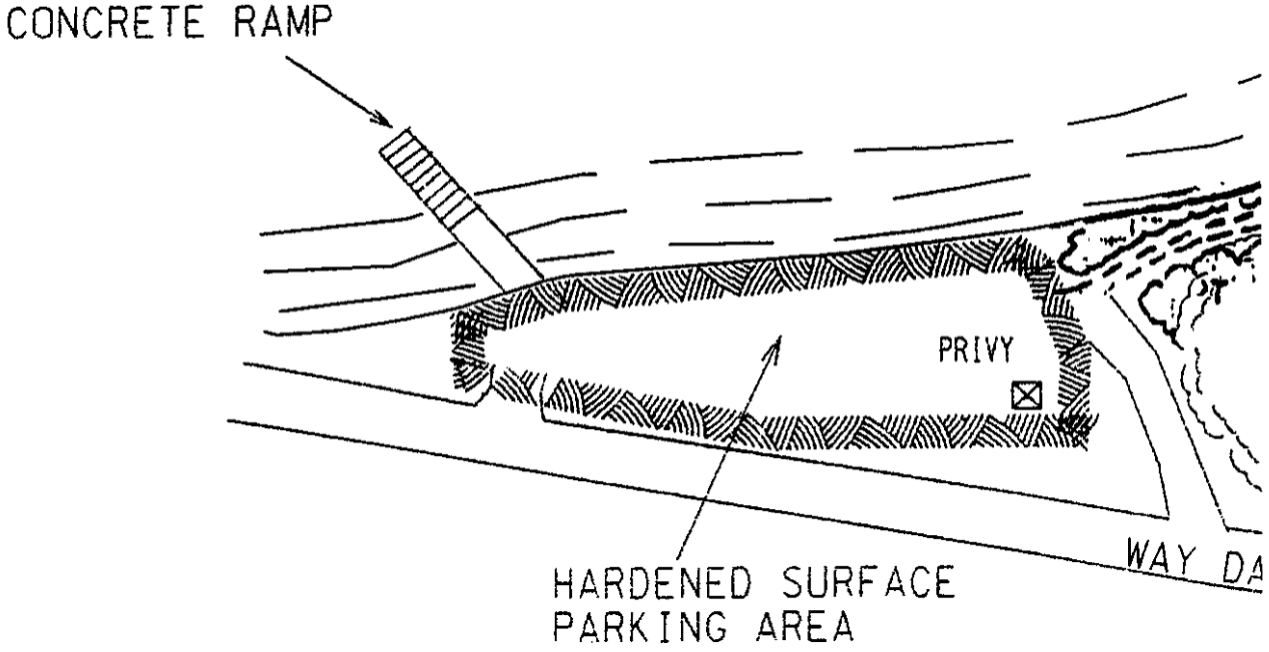
SCALE

B

EXHIBIT F
Michigamme Reservoir
Recreation Area 20

Wisconsin Electric

MICHIGAMME



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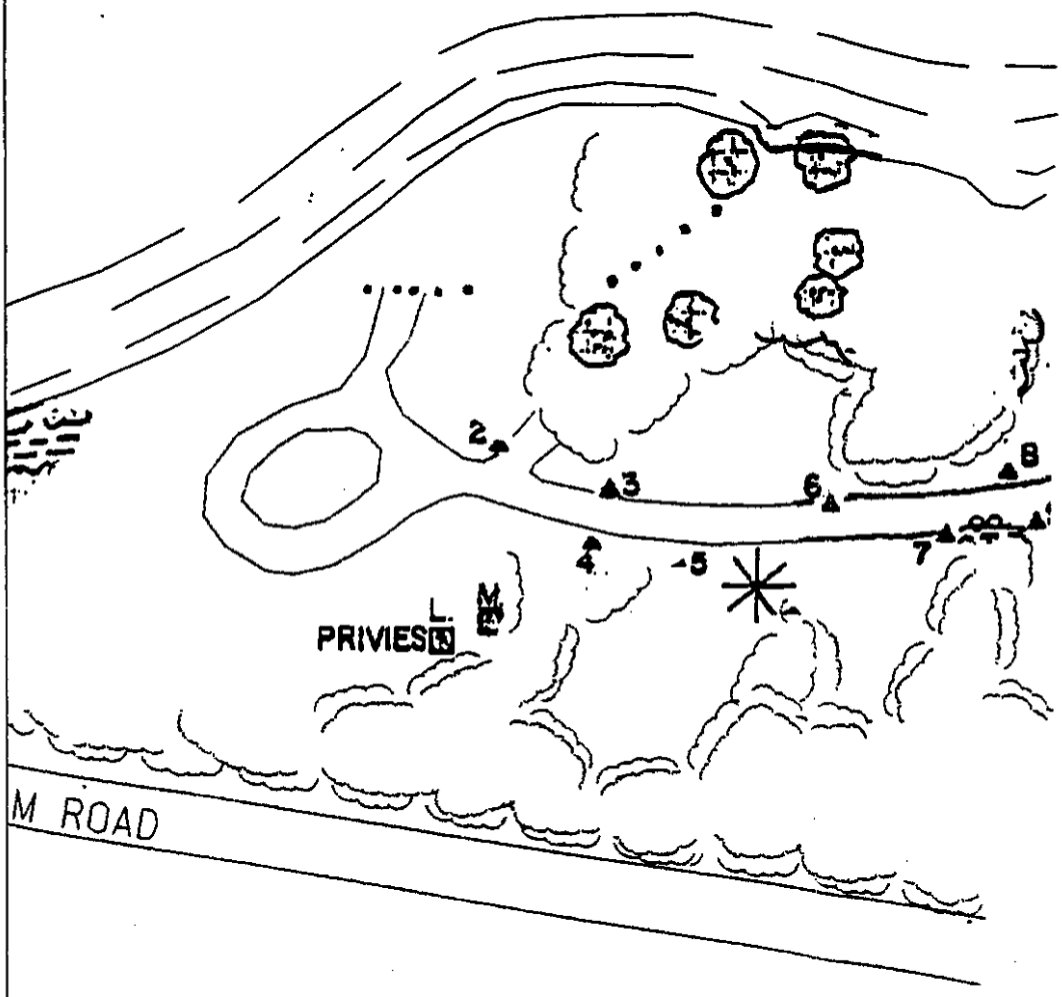
						CHECKED
						APPROVED
REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D

LEVEL USAGE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

RESERVOIR

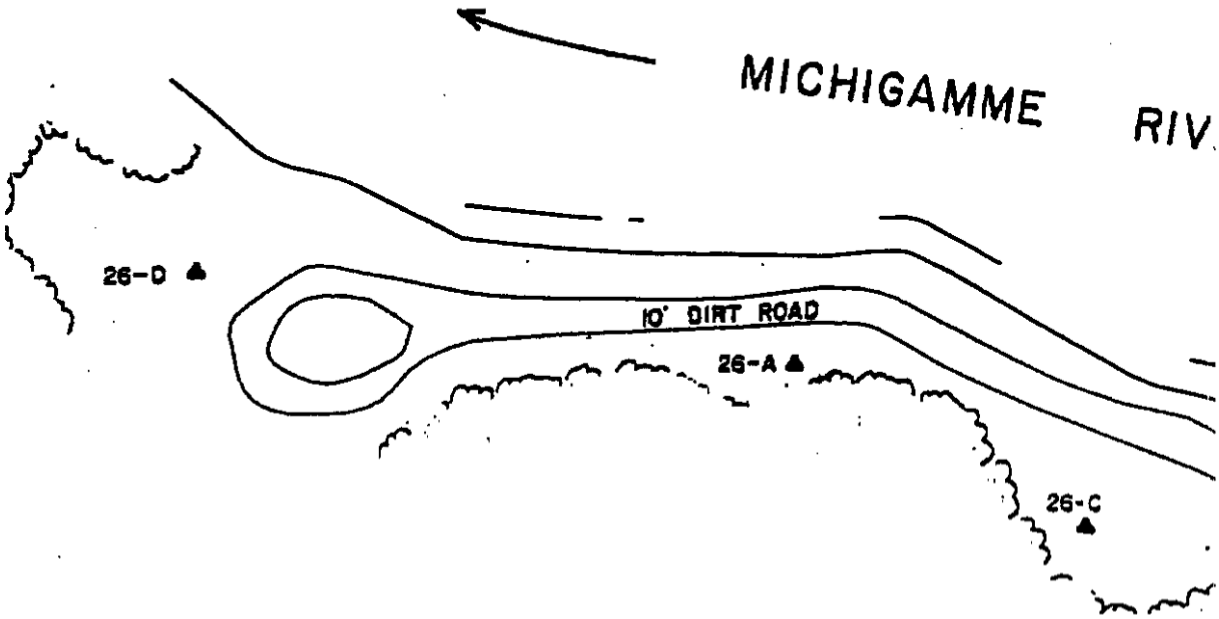


NO.		WISCONSIN ELECTRIC	RECREATION AREA 20
DATE	PROJECT NO.	CGS NO.	MICHIGAMME RESERVOIR
DATE	ACTIVITY NO.	B	
DATE	SCALE		

48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

EXHIBIT G
Way Dam
Recreation Area 26

Wisconsin Electric 



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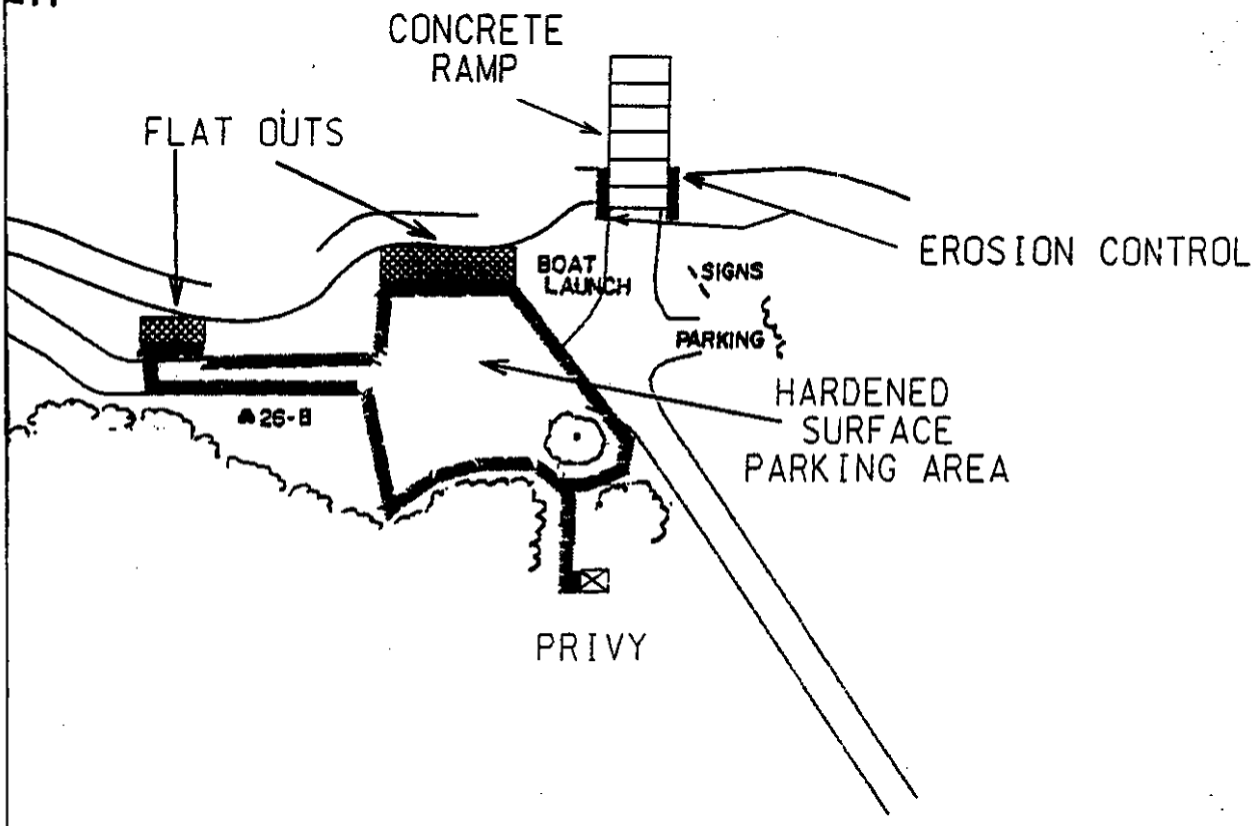
REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D	APPROVED D

LEVEL USAGE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49



WISCONSIN ELECTRIC

RECREATION AREA 26

WAY DAM

CGS NO.

PROJECT NO.

ACTIVITY NO.

SCALE

B

WAS:

EXHIBIT H
Hemlock Falls
Recreation Area 12

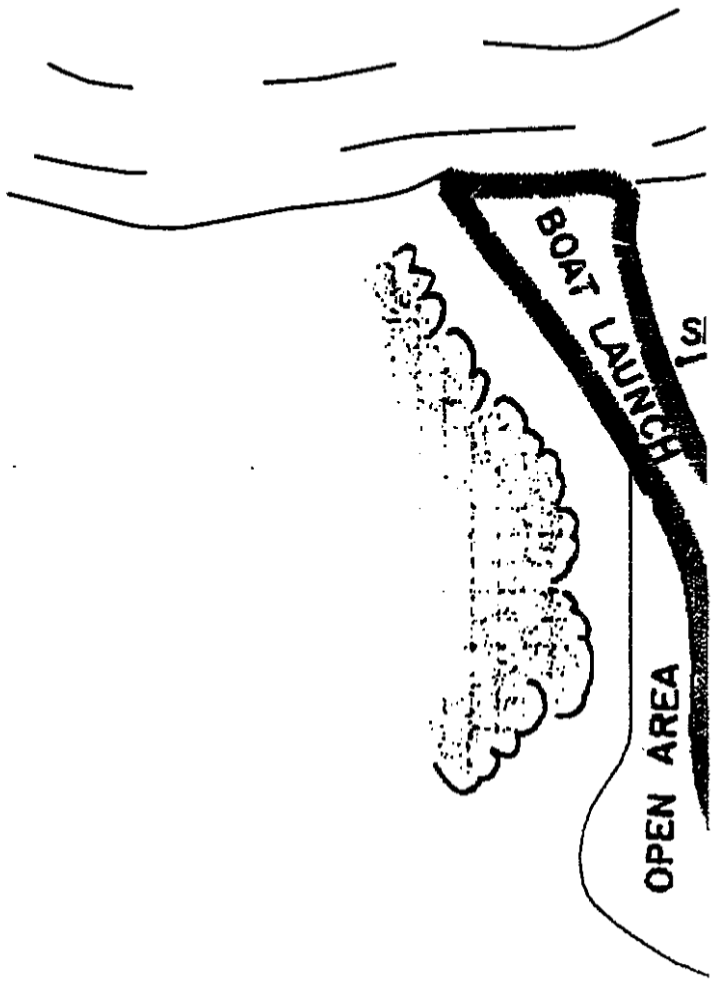
4 3

C

B

A

MICHIGA



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REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D

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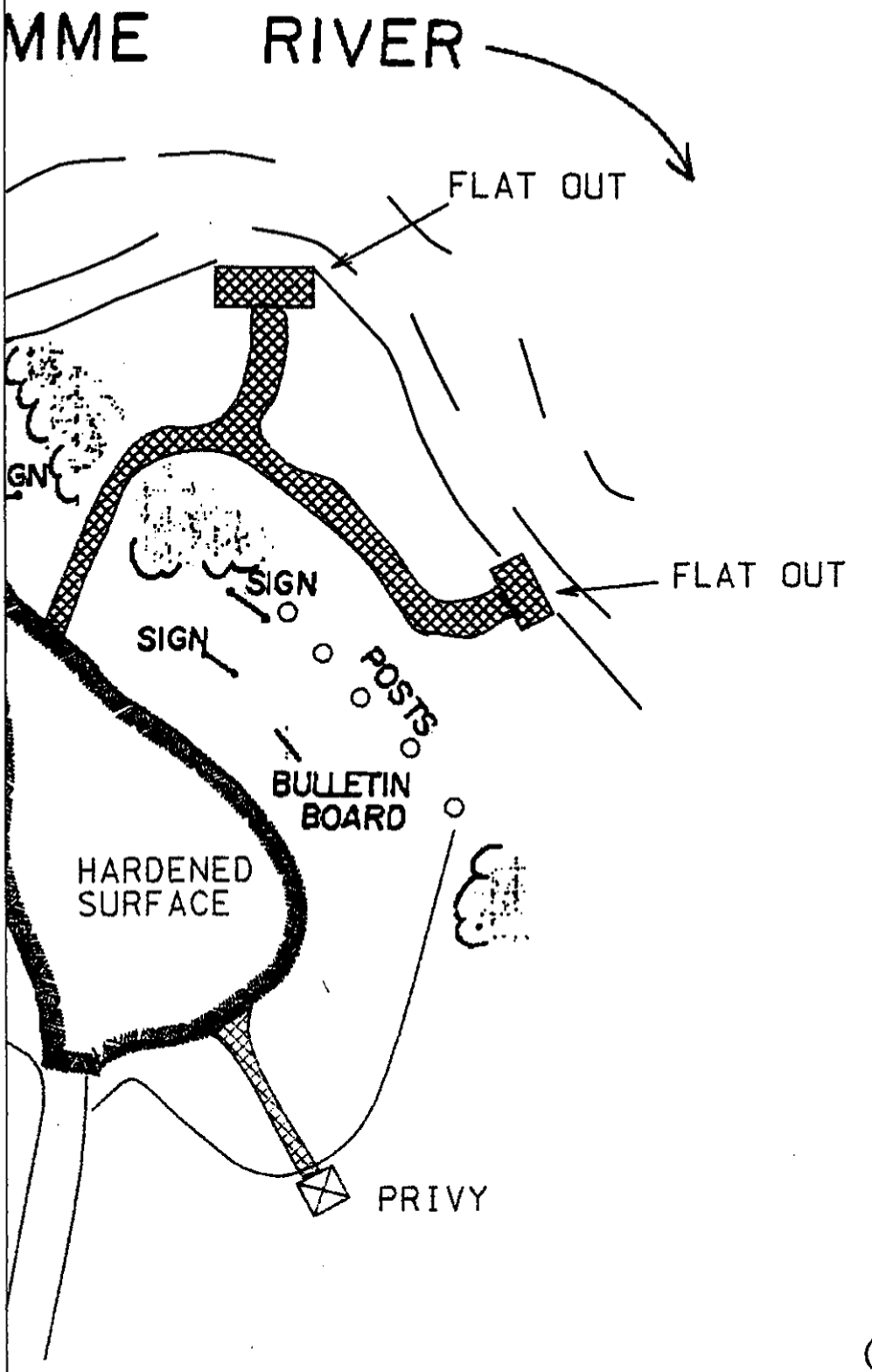
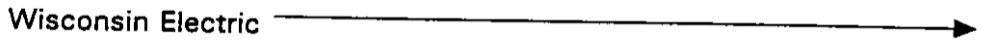


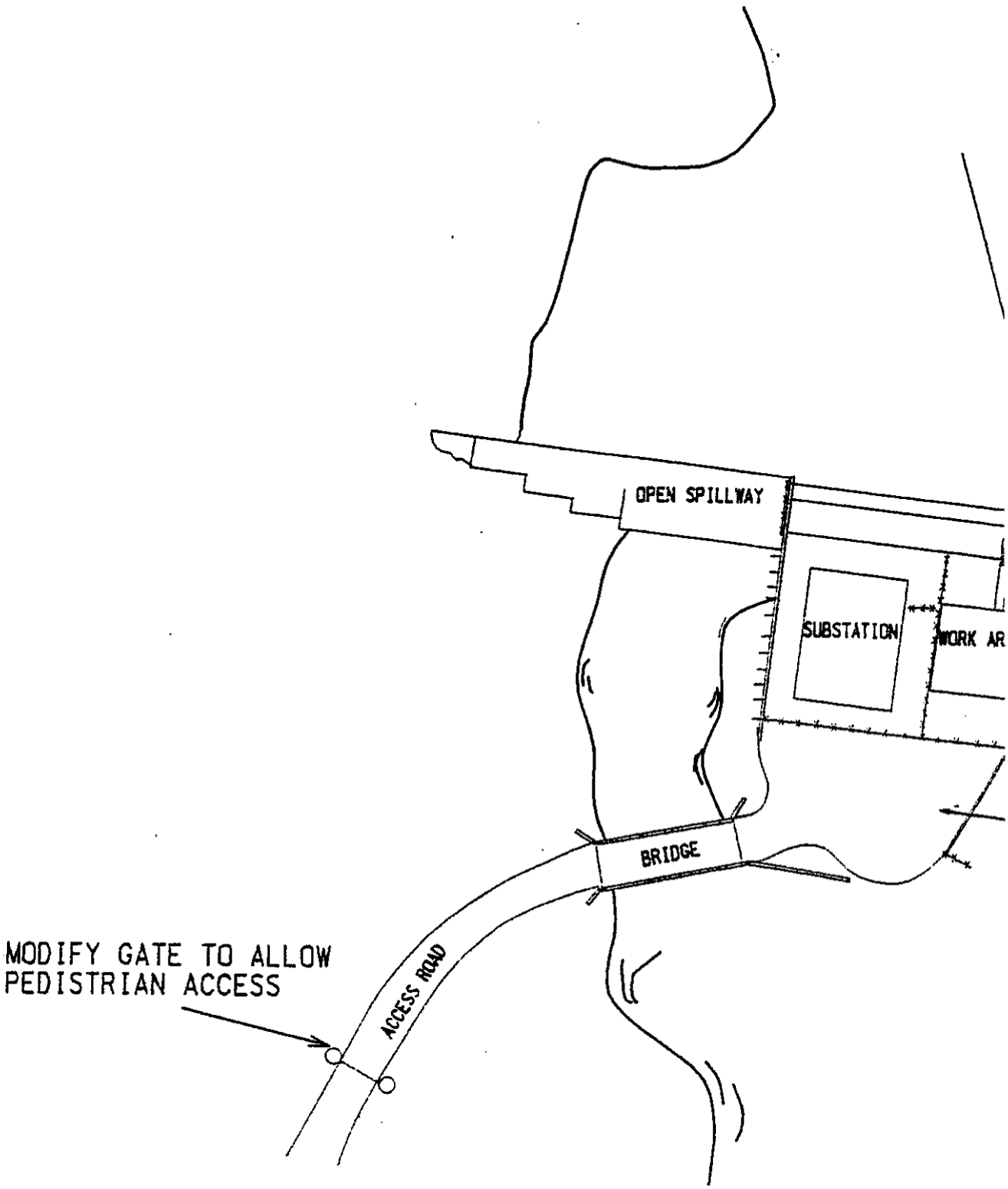
NO.	WISCONSIN ELECTRIC	RECREATION AREA 12
DATE PROJECT NO.	CGS NO.	HEMLOCK FALLS HYDRO PLANT
DATE ACTIVITY NO.		
DATE SCALE	B	

WAS:

49 50 51 52 53 54 55 56 57 59 61 62 63

EXHIBIT I
Hemlock Falls
Tailwater Access





REV NO.	DATE	REVISION DESCRIPTION	ACT	DRAWN	CHK'D	APP'D
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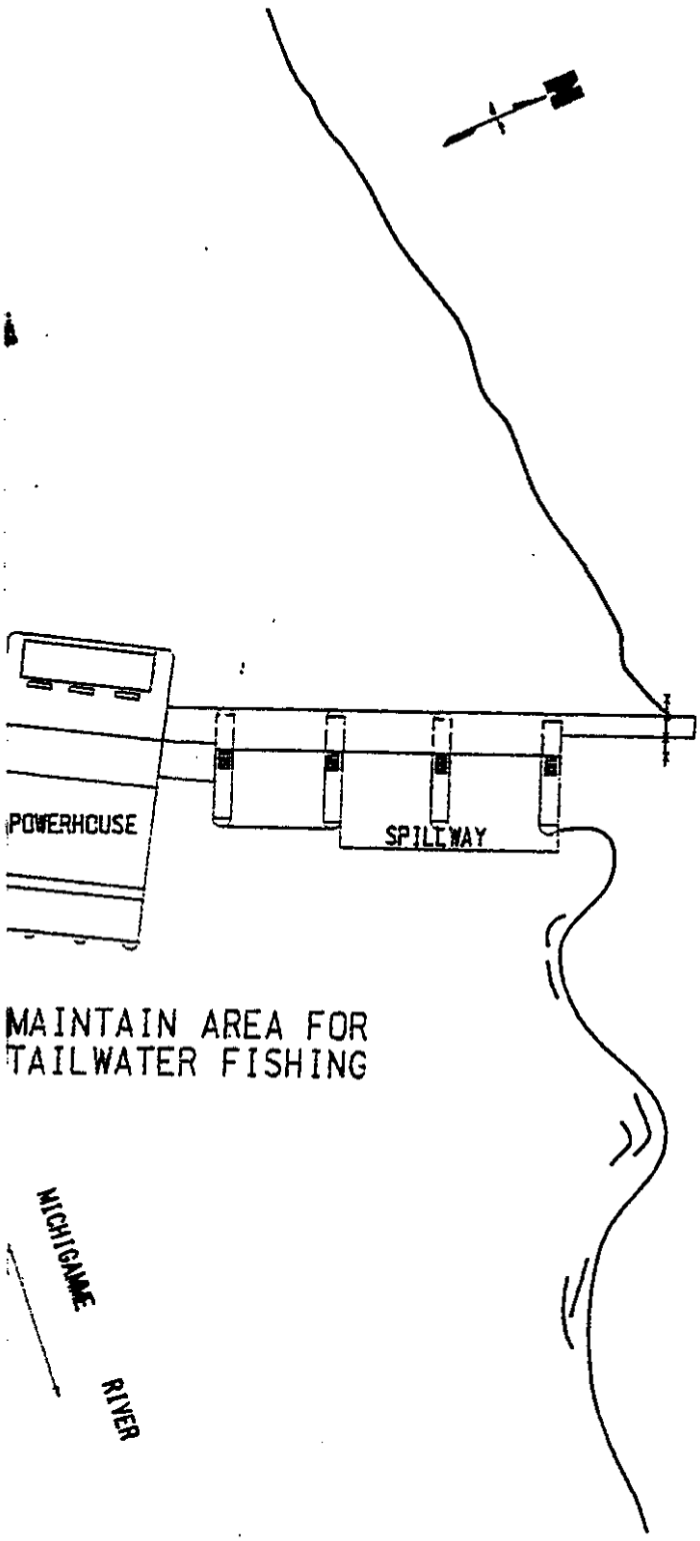
MICROFILM NO.

DRAWN DA

CHECKED DA

APPROVED DA

LEVEL USAGE: 1 6 7



WISCONSIN ELECTRIC

TAILWATER ACCESS

HEMLOCK FALLS HYDRO PLANT

PROJECT NO.	
CGS NO.	
ACTIVITY NO.	
SCALE	B

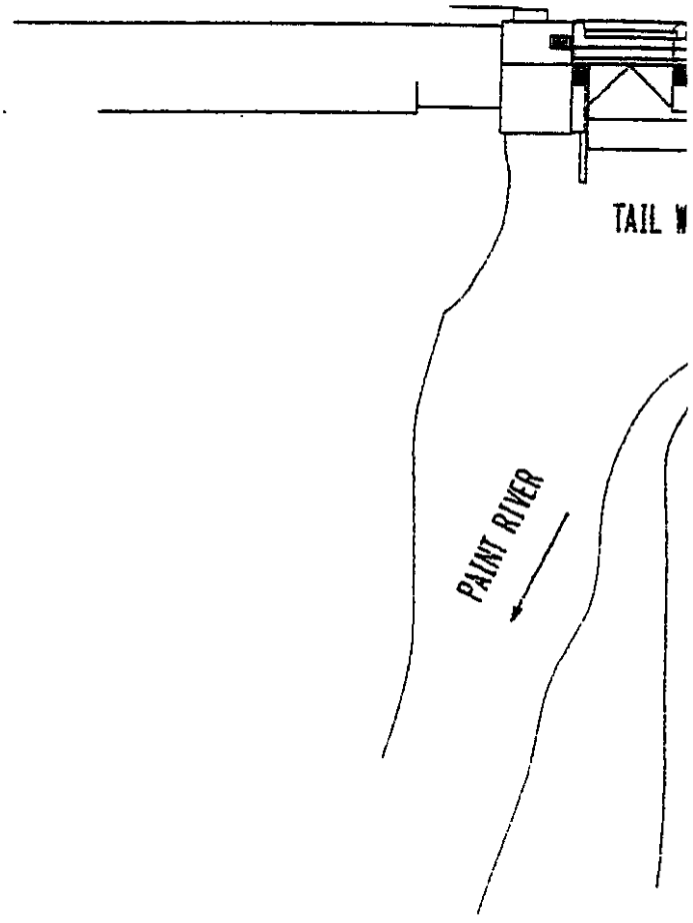
WAS:

62 63

EXHIBIT J
Lower Paint
Shoreline Fishing

Wisconsin Electric

BOAT LAUNCH IMPROVEMENTS AND SHORELINE FISHING LOCATIONS TO BE DETERMINED BY THE TEAM



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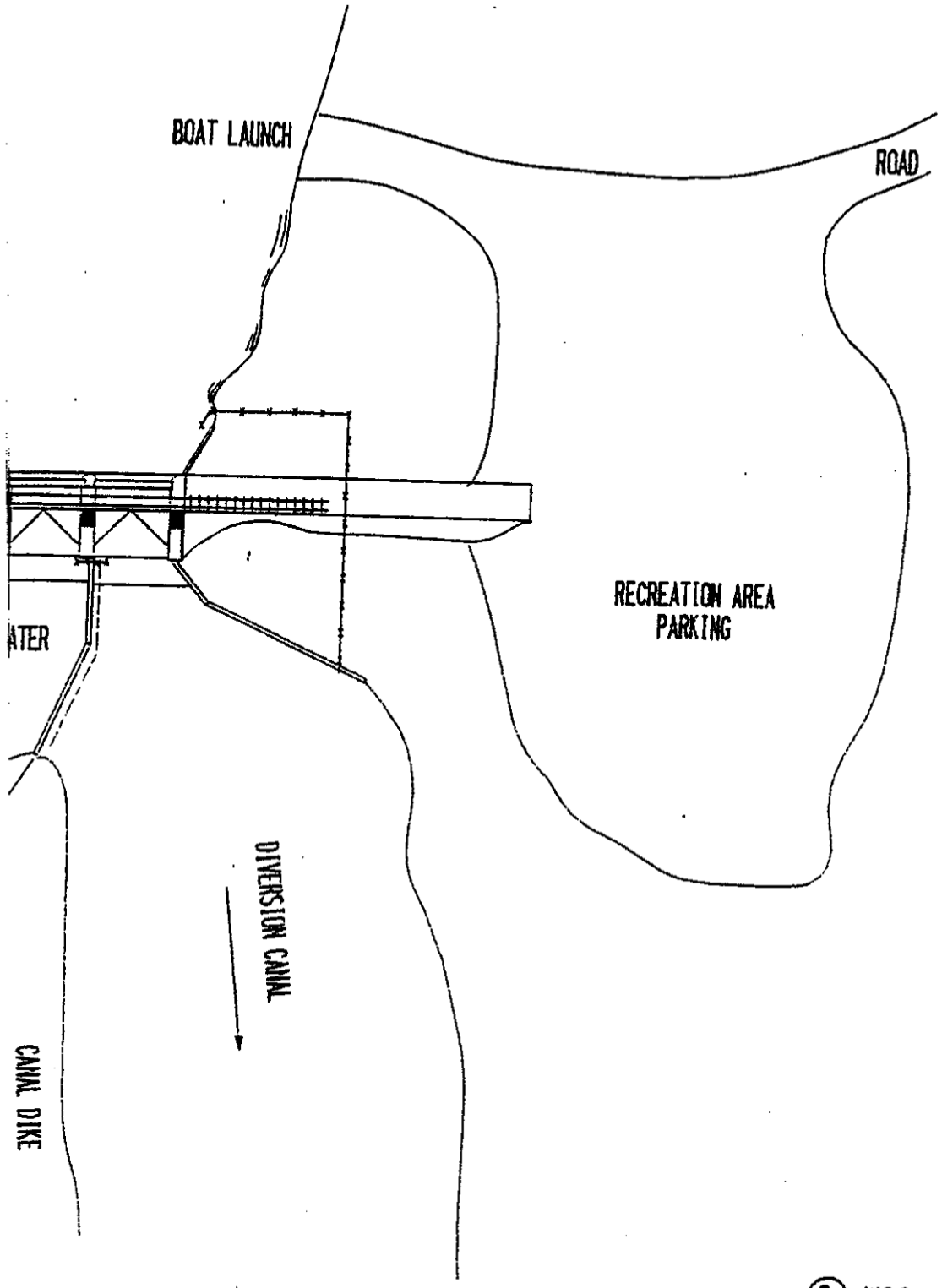
LEVEL USAGE: 1 6 7



WISCONSIN ELECTRIC

SHORELINE FISHING ACCESS

LOWER PAINT HYDRO PLANT

E PROJECT NO.	CGS NO.
E ACTIVITY NO.	
E SCALE	B

WAS:

62

1

EXHIBIT K
Peavy Falls
Recreation Area 9