1 Introduction: The Feasibility Assessment and Environmental Analysis Process

This document is a combined Feasibility Assessment and Environmental Analysis intended to include the required information for both types of studies, to avoid unnecessary duplication.

A Feasibility Assessment is used to determine whether it is feasible to establish, acquire, develop, and manage new property. The study takes into account the physical and biological environment and its capabilities, the views of the public and of landowners adjoining the property, and the availability of funding and staffing to accomplish the project's purpose adequately. Furthermore, a Feasibility Assessment presents boundary alternatives, general land management strategies, and ensures integrated ecosystem management principles are considered.

The Feasibility Assessment also must meet the requirements of the Wisconsin Environmental policy Act (WEPA) and its implementing codes. Certain DNR actions require an Environmental Assessment (EA) or a complete Environmental Impact Statement (EIS). The White River Fishery Area boundary expansion study requires an Environmental Assessment (EA) under NR 150 of Wisconsin's Administrative Code.

The EA process is used to evaluate the likely impacts of a proposed project, primarily on the natural environment. The EA also helps determine whether an activity's impacts will be significant enough to warrant a full Environmental Impact Statement. Both the EA and the Feasibility Assessment are meant to provide the public and decision-makers with a factual, unbiased analysis of a proposal, and must identify reasonable alternatives in order to help make an informed decision.

After you have read this document, you are invited to send your comments to the Department staff listed below. Following a 30-day public comment period, DNR staff will analyze the comments, and modify the document or proposed project as warranted. Public commentors will be notified by letter when the assessment process has been completed.

The final proposal is then forwarded to DNR Administration for presentation to the Natural Resources Board. If the board approves the plan, then DNR is authorized to begin land protection efforts in the study area.

More detailed planning for management of the property begins next, and involves another public participation process. Questions, ideas, or comments on this study should be provided to the DNR between September 1 and September 30, 2004. The primary contact person for this project is: Dan Schuller at (715) 365-8925.

2 Executive Summary

This feasibility study considers a boundary expansion of the White River Fishery Area located in Bayfield County. The White River and its watershed are important from a recreation and ecologic standpoint: it is one of the outstanding inland trout producing streams in northwest Wisconsin and is an important tributary stream to Lake Superior.

The Department proposes expanding the property boundary along the section of the White River between the Bibon Swamp State Natural Area and the White River Wildlife Area, a stretch of river that is entirely privately owned. The project also proposes adding several parcels to the White River Fishery and Wildlife Areas, providing walk-in public access to the river and stream bank protection as needed, and protecting tributary streams in the watershed.

Protecting this segment of the White River creates an ecological connectivity between existing Department properties and corresponds with Department efforts of integrated ecosystem management. By protecting the White River environmental corridor and its tributary streams, the Department is able to offer resource protection to the entire White River watershed. By managing the White River and its watershed, the Department is able to contribute to the larger ecological goals of protecting the Lake Superior Basin.

Several studies, including the Department's Land Legacy Report and the Northern Rivers Initiative, point to the importance of protecting the White River. This boundary expansion project also compliments the efforts of a local group, Friends of the White River, who have been active in discussing ways to preserve the middle section of the river's exceptional quality for future generations.

The Department is proposing the boundary expansion of the White River Fishery Area in response to local sentiment in favor of protecting the river corridor. As such, the Department anticipates little controversy from the public. Local groups value the high quality resource and hope to see it protected from development pressures and the accompanying negative ecological impacts.

3 Proposed Project

3.1 Project Description

The Department proposes a boundary expansion of the White River Fishery Area in Bayfield and Ashland Counties (Refer to Appendix Map 1). The proposed project will include:

- 6,549 acres of fee authority within the new project boundaries for the White River Fishery Area, the middle segment of the White River flowing easterly between the Bibon Swamp State Natural Area and the White River Wildlife Area, and the White River Wildlife Area;
- 500 acres of fee authority to be used for walk-in public access to the river or stream bank protection as needed anywhere within the White River watershed boundary;
- 500 acres of easement authority for any tributary stream in the watershed.

This boundary expansion project protects an important piece of the White River environmental corridor that is currently privately owned, improves public access to the river, and protects tributaries that feed into the White River offering protection to the entire White River watershed. (Refer to Appendix Map 2.)

The White River, the largest stream in Bayfield County, is one of the outstanding inland trout producing streams in northwest Wisconsin and is heavily used for fishing as well as canoeing. It has excellent water quality in the headwaters, resulting in good natural reproduction of brook and brown trout. The stream begins near the Village of Delta, where it is formed by the union of the East, West, and South Forks of the White River in Section 17, T46N, R7W. WDNR's White River Fishery Area spans several reaches of the upper White River, including the South and West forks. The 3,300-acre area is managed for its fishery, wildlife and recreation potential.

The White River flows through the more than 10,000-acre wetland complex, the Bibon Swamp State Natural Area, which was established as a protected WDNR property in 1980 to protect and preserve the plants and animals associated with this geologically unique wetland. The Lake Superior Binational Program has identified the Bibon Swamp State Natural Area as habitat important to the integrity of the Lake Superior ecosystem.

The White River continues to flow in an easterly direction into Ashland County and into the WDNR managed White River Wildlife Area and the Bad River Indian Reservation, both of which protect forest habitat and fisheries. The River drains into the Bad River-Kakagon Sloughs, a very large estuarine wetland complex located in northern Ashland County on the Lake Superior coast. As transition zones between land and water, coastal wetlands are often rich in species diversity and provide critical habitat for migratory and nesting birds, spawning fish, and rare plants.

Land use within the proposed boundary expansion is mainly undeveloped and wooded. Landcover within the White River Fishery Area boundary expansion is largely mixed deciduous/coniferous, aspen and mixed deciduous. Although not native to this area and contributing to fragmentation of the region's forests, a swath of grassland habitat running roughly between the White River and Lake Superior on fallow farm fields provides important habitat for many northern grassland birds, mammals, waterfowl, and amphibians.

Table 1: Proposed White River Fishery Area Boundary Expansion-Wiscland Landcover

Landcover**	Acres	Percent
Mixed Deciduous/Coniferous	2375.37	36.3
Aspen	1361.79	20.8
Mixed Deciduous	1314.76	20.1
Grassland	741.43	11.3
Lowland Shrub	186.11	2.8
Mixed Conifers	145.08	2.2
Broad Leaved Deciduous	101.06	1.5
Open Water	72.04	1.1
Agriculture lands	65.04	1.0
Barren	60.03	<1.0
Red Pine	58.03	<1.0
Shrubland	35.02	<1.0
Lowland Coniferous	21.01	<1.0
Lowland Mixed Deciduous	12.01	<1.0
Jack Pine	0.22	<1.0
TOTAL	**6,549**	

***Landcover acreages are derived from the WISCLAND land cover dataset. Due to scale and processing limitations, Wiscland values are approximate.*

3.2 Project Goals

This boundary expansion project protects an important piece of the White River environmental corridor that is currently privately owned. Protecting this segment creates an ecological connectivity between lands already protected through federal, state and tribal ownerships. Acquisition of remaining private lands within the boundaries of current Department projects adds to the goal of protecting the entire river system from development.

Additionally, the project calls for protecting tributaries that feed into the White River. Protecting the tributaries is important because of the brook and brown trout that use these streams as spawning areas. Water quality protection is an important aspect that would benefit from protecting not only the main stem of the White but also the small tributaries that can contribute sediment and beneficial cold water to the river. Protecting the riparian areas of both the main river channel and tributaries is an important goal for the future of

the fishery in the White River. By managing the White River and its watershed, the Department is able to contribute to the larger ecological goals of protecting an important Lake Superior tributary stream.

This project also contributes to the existing property goals of providing public outdoor recreation opportunities by proposing fee authority to be used for walk-in public access. Access along the middle segment is limited due to few roads crossing the river.

3.3 Property Designation

The property will be designated as a boundary expansion of the White River Fishery Area. State fishery areas are purchased to protect important waterways in Wisconsin from improper land use due to agricultural abuse or urban runoff. They are used to help preserve and manage headwaters and springs that often form the biological base for stream fisheries. They protect and improve spawning grounds for lake fisheries and prevent private blocking of important waterways, game lands, and lakes. Fishery areas often consist of fee-title ownership as well as easements. In some cases, easement areas may allow for public fishing only while other easements may include fishing, hunting, trapping, or some combination thereof. Boundary signs posted near parking lots and along borders explain the uses.

3.4 Need

The Department is pursuing this boundary expansion to further protect the White River's exceptional inland trout fishery and improve the water quality of an important Lake Superior tributary stream. The majority of the White River is protected within the White River Fishery Area, Bibon Swamp State Natural Area and the White River Wildlife Area. Expanding the property boundary to include the stretch of the White River between the Bibon Swamp and the White River Wildlife Area connects the three DNR-managed properties. The benefits of the boundary expansion include creating an environmental river corridor that offers better protection of the water quality and fish habitat. Protecting the White River also contributes to the more encompassing goals of protecting the White River watershed and the Lake Superior Basin.

The White River was identified in the Department's "Land Legacy Report" among the places critical in meeting Wisconsin's future conservation and recreation needs (WDNR 2002). The White River received a score of four-points (based on a five-point scale) for its Conservation Significance and two-points for its Recreation Potential. The White River boundary expansion is important from a conservation standpoint given the patchwork of protected lands both upstream and downstream. The upper segment of the river is within the WDNR's White River Fishery Area and Bibon Swamp State Natural Area. The lower segment flows through the White River Wildlife Area and the Bad River Indian Reservation. The middle segment of the White River is entirely privately owned. While current owners have left this middle segment largely undeveloped and in good shape, the potential for future stream degradation from increased development

exists. Private ownership also largely precludes in-stream or stream bank restoration actions by the state, should they be warranted.

From a conservation standpoint, the ecological quality of the White River is notable for its trout habitat and excellent water quality in the upper reaches of the River. Sedimentation remains a problem in the lower stretches of the White River. The extent of Department managed lands along portions of the White River and the relatively undeveloped nature of the middle segment contribute to the high quality of this resource. This boundary expansion project has a high likelihood of success in contributing to water quality and trout habitat protection, and protecting the water quality of a Lake Superior tributary stream. Protecting the middle segment completes a patchwork of conservation efforts and limits the threat of future river developments.

This boundary expansion project also compliments the efforts of a local group, Friends of the White River, who have been active in discussing ways to preserve the middle section of the river's exceptional quality for future generations. A major result of their efforts is the "White River Watershed Management Plan" (2004) in which they discuss the need for this project based on escalating regional land prices, rising demand for waterfront property, and increasing pressure for land-parcel subdivision and development.

They note most land parcels in the watershed's middle segment are large and owned by relatively few landowners, which contribute to the river corridor retaining a high level of ecological quality and a distinct wilderness character. Protecting this segment helps landowners who are facing increasing pressure to subdivide and sell the land; it protects the river from potential ecological damage often associated with development. They further state "that a program of active ecological protection of this middle segment of the White River could, in effect, provide the final piece to a patchwork of conservation that when viewed as a whole, would offer protection to the entire White River watershed."

From a recreation standpoint, the boundary expansion contributes to the recreation potential of the river by preserving the notable trout fishing and canoeing opportunities, and providing a proposed walk-in easement to improve accessibility. Considering the impact tourism has on the local economy, it's important to preserve the resources and recreation opportunities that draw outdoor enthusiasts to the area.

Finally, this proposed boundary expansion contributes to larger ecological goals at the basin level by protecting an important Lake Superior tributary stream. In response to the uniqueness of Lake Superior, the governments of Canada and the United States (including Wisconsin, Minnesota, Michigan and Ontario) entered into an agreement to create the "Binational Program to Restore and Protect the Lake Superior Basin." Wisconsin has taken a leadership role in protection and restoration of Lake Superior through the Binational Program. Nearshore, shoreline and wetland aquatic habitats are crucially important for the Lake Superior ecosystem. Key sites should be identified, protected and restored. These key sites support reproduction and rearing of fish, water birds, mammals, other wildlife, and plants. The White River and its tributary streams are examples of such habitats.

3.5 Management Goals

Management goals for the length of White River proposed in the boundary expansion will be similar to those of the White River Fishery Area, Bibons Swamp Natural Area and White River Wildlife Area: to improve and maintain the river and springs for trout habitat and to protect the watershed.

4 Environmental Description

4.1 Regional Analysis

4.1.1 Ecological Landscape

The proposed boundary expansion project area lies in the Superior Coastal Plain, Wisconsin's northernmost ecological landscape (Refer to Appendix Map 3). The Superior Coastal Plain is bordered on the north by southwestern Lake Superior and on the south by the Northwest Sands, the Northwest Lowlands, and the North Central Forest ecological landscapes. Key characteristics of this landscape include coastal estuaries, sandscapes, boreal conifer-hardwood forest, shoreline cliffs, red clay soils, bottomland hardwood forest in the major rivers and migratory bird concentration sites.

The majority of this ecological landscape remains forested, with only a small amount of the land being used for agriculture. Figure 1 illustrates the land cover of the Superior Coastal Plain (WDNR Land Legacy 2002). While seemingly an insignificant percentage of the land cover, urban development threatens some coastal wetlands. The Kakagon-Bad River Sloughs are of special ecological concern.

Figure 1: Land Cover of the Superior Coastal Plain.

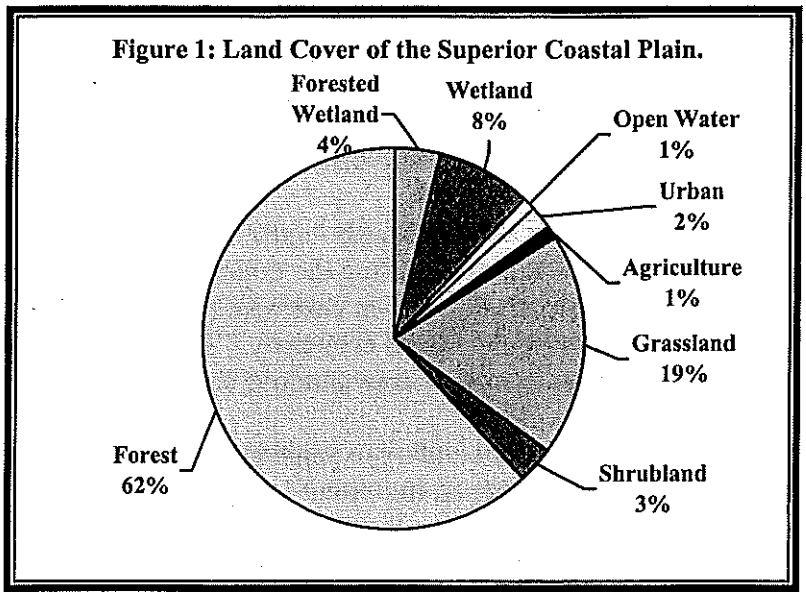

Table 2 below lists some of the public conservation lands within the Wisconsin portion of the Superior Coastal Plain. Public lands within this area include the Brule River State Forest, St. Louis River Stream Bank Protection Area, Apostle Island National Lakeshore and County Forest lands.

Table 2: WI Public Conservation Lands - Superior Coastal Plain

Property Name	Size (acres) [1]
STATE	
Amnicon Falls State Park	830
Bibon Swamp State Natural Area[2]	7,880
Big Bay State Park	2,300
Brule River State Forest[2]	15,090
Copper Falls State Park[2]	600
Lost Creek Bog State Natural Area	460
Pattison State Park[2]	1,100
South Shore Lake Superior State Fish And Wildlife Area[2]	5,390
St. Louis River Stream Bank Protection Area	6,230
White River State Fishery Area	1,430
White River State Wildlife Area[2]	950
Miscellaneous lands[3]	2,900
FEDERAL	
Chequamegon-Nicolet National Forest[2]	2,150
Apostle Islands National Lakeshore	41,100
Whittlesey Creek National Wildlife Refuge	300
COUNTY FOREST[4]	
Bayfield County Forest[2]	69,870
Douglas County Forest[2]	9,130
Iron County Forest[2]	7,630
Superior Municipal Forest	4,500
TOTAL	179,540

(Source: WDNR Land Legacy Report 2002).

1. Actual acres owned in this Ecological Landscape.
2. This property also falls within adjacent Ecological Landscape(s).
3. Includes public access sites, fish hatcheries, fire towers, streambank and non-point easements, lands acquired under statewide wildlife, fishery, forestry, and natural area programs, small properties under 100 acres, and properties with fewer than 100 acres within this Ecological Landscape.
4. Locations and sizes of county owned parcels enrolled in the Forest Crop Law are presented here. Information on locations and sizes of other county and local parks in this Ecological Landscape is not readily available and is not included here, except for some very large properties.

4.1.2 Land Use and Recreation

Bayfield County is the second largest county in Wisconsin in area and contains approximately 966,000 acres. Bayfield County has an abundance of publicly owned and managed forestlands and natural areas. Approximately 48% of the county (462,481 acres) is in some form of public ownership, much of it in the Chequamegon National Forest. Similarly, much of Ashland County is woodland including nearly 178,000 acres in the Chequamegon National Forest. Considering the extent of public lands, it is evident that natural resources are an important part of resident's daily lives as well as a draw for tourists. Each land ownership type, whether federal, state or county, fills different needs and helps define resource management objectives.

Outdoor enthusiasts may take advantage of the campgrounds or many miles of maintained recreational trails in the Chequamegon National Forest, which provide opportunities for snowmobiling, cross-county skiing, ATV riding, biking and hiking. The North County National Scenic Trail runs through approximately 48 miles of the Chequamegon National Forest. The State parks, natural areas, and wildlife and fishery areas offer a range of outdoor activities from the more developed campgrounds to the more remote hunting and fishing areas. The county forests have a multiple purpose and in general, are more actively managed than state lands. Much of the county forestland is actively managed on a sustainable basis for forestry, wildlife, aesthetics, water quality, and recreational activities.

As described in the Land Legacy Report (WDNR 2002), Lake Superior and its shoreline draw visitors from throughout North America. The Apostle Islands National Lakeshore includes 21 islands and 12 miles of mainland shoreline, featuring pristine stretches of sand beach, spectacular sea caves, remnant old-growth forests, resident bald eagles and black bears, and the largest collection of lighthouses anywhere in the National Park system. With a series of primitive campsites scattered throughout the islands, the area offers a boating and paddling experience unparalleled in the Midwest.

In addition to Lake Superior, the region offers a number of opportunities for water-related recreation. The area's lakes, rivers and streams provide for swimming, boating, canoeing, kayaking and fishing. Ashland County has 64 lakes covering 11,000 acres, and more than 300 miles of spring-fed trout streams. The Chippewa and Flambeau Rivers are available for recreation opportunities. Bayfield's largest rivers, the Namekagon and White, also provide notable recreation opportunities. The Namekagon River in Bayfield County flows for 15 miles from Lake Namekagon to the Sawyer County line. It is an excellent canoeing stream during medium and high water levels and offers good brown trout fishing on that portion of Bayfield County (Laumann et al 2003).

The White River is a highly scenic stream in one of Wisconsin's least developed river systems. Historically, the White River system has been a premier wild brown trout fishery in Bayfield County. It is one of only eight rivers in Wisconsin with over 40 miles of Class I or Class II trout water. The 15-mile river segment between the Sutherland and Bibon Road bridges is the longest reach of high quality trout water in Wisconsin inaccessible by public road; it provides a rare canoe fishery for wild brown trout. The White River system attracts anglers from all over the Midwest. In a 1984-1985 creel survey performed by the Wisconsin DNR, an average of 46% of the trips were made by anglers living at least 100 miles from the river.

4.1.3 Socio-economics

Population densities in Bayfield and Ashland counties are much less than the statewide figure of 98.8 persons per square mile (based on 2000 US Census Bureau). Bayfield County has a population density of 10 persons per square mile and Ashland County 16 persons per square mile. The Villages of Iron River, Cable and Brule, as well as the Cities of Ashland and Superior, are within easy driving distance of the White River.

Superior and its twin city, Duluth, Minnesota, have a combined population of nearly 115,000 and are the largest population center in the region. Comparatively, Bayfield and Ashland counties have a combined population of roughly 32,000.

Population trends for Bayfield County from 1990-2000 show a steady growth rate occurring along the inland lakeshore and around small, unincorporated towns that are along major roads in towns such as Barnes, Cable, Iron River, Washburn and Red Cliff. The Towns of Barksdale and Eileen are experiencing growth, perhaps due their proximity to the City of Ashland, Ashland County. Areas around lakes continue to see growth; one reason for this is the many seasonal residents that are converting from seasonal homes to permanent homes (Laumann et. al 2003). From 1990-2000, Ashland County experienced a much smaller percent change in population of 3.4% compared to the statewide 9.6%.

Economically, Bayfield and Ashland counties rely on the area's natural resources and related tourism. Bayfield County's local economy, which has been historically based in forestry, fishing and farming, has evolved into an economy that is dominated by the tourism industry. Based on March 2000 figures, logging-related employment, a traditional manufacturing industry within the county, is no longer in the top ten industry groups. The county's land use plan indicates the substantial economic impact of tourism on Bayfield County. Over the period 1992-2001 tourism expenditures increased by nearly 170 percent in Bayfield County (ibid).

Many tourism-related jobs tend to be part-time and seasonal, which corresponds with the area's higher unemployment and poverty rates. Both counties have a greater percentage of persons below poverty than the statewide 8.7%, with Bayfield at 12.5% and Ashland at 11.9%.

4.2 Site Description

4.2.1 Physical

The White River watershed drains 350 square miles of field, woodland and wetland in Bayfield and Ashland counties and is scattered with numerous lakes. The soils of the White River watershed are derived from the glacial erosion of sandstone bedrock and the accumulation of lake basin deposits. Sandy loam soils are found on the bordering uplands, which are rather coarse and stony and contain quantities of boulders and unsorted gravel. Bordering the latter soils type on the area just upstream from Pike's Bridge are finer sandy soils of the low uplands and outwash plain of the river. They tend to be silty in nature and laminated with thin layers of clay and sand. The area below Pike's Bridge is dominated by the other major local soil type, that of the fine textured red clay and silt loams of the pre-glacial lake plain.

As illustrated in Table 3, land use within the 224,000 acre White River watershed is mainly forest and woodland:

Table 3: White River Watershed Land Use.

Land Use	Acres	Percent
Forest/Woodland	162,400	72.50
Wetland	28,851	12.88
Agricultural: crops, forage and grassland	22,983	10.26
Open Water	6,630	2.96
Shrubland	2,083	0.93
Barren	1,008	0.45
Urban	45	0.02
TOTAL	224,000	100
Source: Wild Rivers 2004.		

The White River is one of the outstanding inland trout producing streams in northwest Wisconsin. It has excellent water quality in the headwater areas, resulting in good natural reproduction of brook and brown trout. The stream flows through a wild and natural setting with very little development or pollution. The three main headwater sources of the White River are the South Fork, site of the main fishery area, the West Fork, which merges with the South Fork immediately upstream from Delta, and the East Fork joining the South and West Forks below Delta to form the main stem of the White River.

WDNR's White River Fishery Area spans several reaches of the upper White River, including the South and West forks. The 3,300-acre area is managed for its fishery, wildlife and recreation potential with trout fishing the primary use. This stretch of the White River is characterized by shifting sands with marl shelves found in places.

The White River meanders through the 10,000-acre Bibon Swamp State Natural Area, which was established as a WDNR property to protect and preserve the plants and animals associated with this geologically unique wetland. This clay plain wetland has alder and willow thicket, swamp hardwood, bog and northern sedge meadow habitats. The Lake Superior Binational Program has identified the Bibon Swamp State Natural Area as habitat important to the integrity of the Lake Superior ecosystem.

Previous owners of the Bibon Swamp drained portions of the wetlands, increasing the rate of surface water runoff, which degraded habitat and water quality. Under the auspices of the Lake Superior Binational Program, a project is underway to correct the erosion problems, restore natural drainage patterns, restore wetlands and restore and enhance fish and wildlife habitat on a tributary to the White River. A preliminary plan was developed cooperatively by the Bayfield County Land Conservation Department, the federal Natural Resources Conservation Service and WDNR.

As the river passes through the marsh and down to the White River Flowage, it collects the waters of Long Lake Branch and its tributaries and Schramm Creek. The river picks up discoloration here from the underlying red clay soils and while still a cold water stream is less productive for trout. Bottom types are mostly clay, with areas of sand, gravel, silt and rubble. WDNR also manages the White River Wildlife Area, which protects forest habitat and fisheries. Much of the wildlife area is composed of aspen,

stands of red and white pine and swamp hardwoods. Deep gullies support balsam fir, an important winter cover for deer.

Above the White River Fishery Area boundary, the West and East forks have warm water fisheries due to the numerous lakes through which they flow. The first two miles of the river down to Pike's Branch at the Section 21/22 line is considered a Class I trout steam for brook and brown trout. From this point to the White River Flowage in Ashland County, and then from the outlet of the flowage to the river mouth, is considered Class II trout water, with the reach up to the dam supporting migratory species from Lake Superior. The Class I portion is an outstanding resource water. From the Section 21/22 line to the boundary of the Bad River Indian Reservation, the stream is considered an exceptional resource water.

Several of the White River's feeder streams are considered trout waters. Most of the feeders to the river in this downstream portion are either intermittent or considered warm water forage fishery waters. The entire river system is popular with waterfowl for nesting and during migration. The Porcupine Lake Wilderness Area, managed by the U.S. Forest Service, protects roughly 4,500 acres of roadless headwater streams, lakes bogs and northern hardwood forest.

The majority of the boundary expansion project focuses on the middle segment of the White River, which runs primarily through the Town of Kelly, Bayfield County, but also passes through parts of the Town of Gingles and the Town of White River in Ashland County. Land use in each of the towns is comprised mainly of forest/woodlands and agricultural, illustrating the undeveloped nature of the White River. Land-use breakdowns for these townships, based on Wisconsin Department of Revenue assessment records, are listed in the table below:

Table 4: Land Use for the Middle Segment of the White River Watershed

	T. of Kelly	**T. of Gingles**	**T. of White River**
Land Use	*Total acres: 23,534*	*Total acres: 24,847*	*Total acres: 22,887*
Residential, commercial, manufacturing	1.8%	2.9%	3.2%
Agricultural	40.1%	16.6%	39.3%
Swamp & "waste"	2.3%	0.8%	2.8%
Forest/woodland	55.0%	79.7%	54.4%
Other	0.8%	NA	0.3%
Source: Wild Rivers 2004.			

While much of the White River is protected within WDNR and other managed lands, the middle segment is almost entirely privately owned. Presently, much of the middle segment remains undeveloped. However, as privately owned land amidst large tracts of public land, the middle segment faces the potential threat of development pressures.

The extent of privately owned land and the lack of road crossings in this middle segment of the watershed limit access points for river users. The boundary expansion project proposes to establish walk-in easements to improve user access. Additional parcels outside the mid-section boundary may be acquired to allow public access to significant trout waters or to provide opportunities to reduce erosion impacting the White River.

4.2.2 Biological

Areas of the White River watershed are noted for unique biological diversity by the Wisconsin Natural Heritage Inventory (NHI) program. Refer to Table 6 in appendix for listing of endangered, threatened or special concern species of the White River watershed.

The Bibon Swamp State Natural Area supports a variety of rare plants and animals, including three state-threatened species: wood turtle, sheathed pondweed, and sweet colt's foot. Other rare species found here are great gray owl, bald eagle, osprey, and showy lady's slipper. This site also supports a valuable sport fishery and is fed by small streams and springs from the south and west. Bibon Swamp is a vital, connecting link between the extensive forests to the south and the Bad River corridor downstream. Maintenance of high water quality and streamside vegetation, especially along the White River, is critical throughout the watershed.

The Lake Superior Coastal Wetland Evaluation (Epstein 1997) identifies the White River and a number of creeks and tributary streams as aquatic priority sites. A number of the streams are considered either Exceptional Resource Waters or Outstanding Resource Waters, and support rare species of macroinvertebrate fauna and significant aquatic plant communities. Fish species present in the White River include: brown and brook trout, northern pike, longnose dace, blacknose dace, creek chub, white sucker and sculpins. Brown trout is the dominant trout species.

In Ashland County, the Bad River-Kakagon Sloughs is a very large estuarine wetland complex located on the Lake Superior coast. It is a very rich, dynamic and intact mosaic of many natural communities bordering the lower Bad and Kakagon Rivers. This site may be the largest freshwater estuarine system of this size, type and quality in the world. It supports a great diversity of high quality natural communities and rare plant and animal species. Refer to Table 7 in appendix for listing of rare elements of the Bad River-Kakagon Sloughs.

4.2.3 Cultural

There are no known archeological sites, burial sites, or historic structures in the study area.[1]

[1] Verified by Victoria Dirst, DNR-Cultural Resource Coordinator via e-mail communication 21 June 2004.

5 Proposed Acquisition

5.1 Costs

The cost estimate in the table below is based on current market value of $1200-1300 per acre for similar properties in the area with access. The Department will acquire most property for stream bank protection without access, which will appraise for less per acre. The total approximate project cost at the present market value for undeveloped land with access is $9,651,200. **All land acquisition is on a willing-seller basis with costs spread out over many years as owners have interest in selling and funds are available.**[2]

Table 5: Estimated Acquisition Costs

Description	Cost/acre	Total
7,049 ac of fee authority	$1,300/ac	$9,163,700
500 ac of easement authority	$1,300/ac * 75% of fee value	$487,500
		$9,651,200

5.2 Funding Sources

Funding source is Stewardship Bond, and maybe a lesser amount of federal Sport Fish Restoration (SFR) funds.

6 Public Involvement

6.1 Local Partnerships

The proposed boundary expansion of the White River Fishery Area is the Department's response to local sentiment in favor of protecting the river corridor. About three years ago, a small group of White River watershed landowners and river users began meeting informally to discuss ways to preserve the middle section of the river for future generations.

Regional land prices are escalating, the demand for waterfront property is rising, and land-parcel subdivision and development are rapidly moving northward. Currently, most land parcels in the watershed's middle segment are large and are owned by relatively few landowners, and the river corridor has retained a relatively high level of ecological quality and a distinct wilderness character. However, these landowners are facing increasing pressure to subdivide and sell the land, and in turn, this segment of the White River is susceptible to ecological damage that often accompanies development.

[2] In Wisconsin, State law provides for payments from the DNR that fully replace or exceed the property taxes that would have been collected if the land were not acquired by the DNR. Therefore, the potential impact on property taxes from DNR ownership of land is negligible. In addition, each town, village or city gains the benefits of natural resource protection and outdoor recreation that public lands offer to all (WDNR Public Land and Property Taxes PUB-LF-001 99 REV).

In 2003, this group, calling themselves the **Friends of the White River**, took steps to bolster their resources and turn some of their ideas into action. They approached the **Bad River Watershed Association, Inc.** (BRWA) a nonprofit organization working to promote the ecological health of the Bad River watershed, which includes the White River watershed. The Friends group asked to become a committee of the BRWA; the BRWA Board of Directors agreed and established the Friends of the White River as a permanent committee of the Bad River Watershed Association.

In addition, on behalf of the Friends of the White River, the **Wild Rivers Chapter of Trout Unlimited** in 2003 applied for and was awarded a Wisconsin Department of Natural Resources River Planning grant to support further investigation into conservation options along the middle segment of the White River, which resulted in the "White River Watershed Management Plan" (2004).

After two public meetings early in 2004, a group of people emerged willing to devote additional time and effort to the development of the Friends of the White River, and were named to the Friends of the White River Steering Committee. At least one representative of this group attends and delivers reports at meetings on the Board of the BRWA.

Another important partner is the **University of Wisconsin-Extension**. The UW-Extension Lake Superior Basin Education program has long been a supportive partner to citizen groups and conservation organizations in northwest Wisconsin, including parts of Douglas, Bayfield, Ashland and Iron counties. The Extension program provides information resources, educational opportunities, and organizational support to groups that focus on the landscapes, shorelands and waterways unique to the region.

6.2 Public Meetings

Through the early part of 2004, a series of public meetings was scheduled to raise awareness of the Friends of the White River and to solicit input for the group's goals and activities. Meetings were publicized in the following ways:

- Articles in the BRWA's newsletter, *Watershed Waves*
- Letters of invitation sent to landowners in every township section that bordered the middle segment of the White River (a database of landowners was assembled from Ashland and Bayfield county tax records)
- Creation and mailing of winter 2004 and Spring 2004 issues of the "Friends of the White River" newsletter
- News releases sent to local media, including the *Ashland Daily Press*.

The schedule of public meetings included (Refer to Wild Rivers 2004 for additional meeting details):

Date	Agenda
January 8, 2004	An initial meeting to attract interest and participation in the Friends of the White River (18 people attended).
January 29, 2004	The meeting focus was to discuss conservation tools and options for protecting and preserving the health and beauty of the White River watershed (21 people attended).
February 11, 2004	A meeting of the 5-member Friends Steering Committee convened to clarify and further develop the group's goals and objectives for the watershed management plan being developed.
April 17, 2004	Distribution and discussion of the draft watershed management plan along with a short PowerPoint presentation (20 people attended).
May 15, 2004	Public gathering to celebrate the work done to date by the Friends of the White River.

The Department of Natural Resources held a public informational meeting on September 11, 2004 at the Wisconsin Indianhead Technical College in Ashland to discuss the White River Fishery Area Expansion project. Department staff members presented a project overview and were available to answer questions and take comments. (Refer to public comments in Appendix.)

7 Environmental Analysis

7.1 Environmental Effects and Their Significance

The Department's proposed boundary expansion project will have positive environmental effects on the White River and its watershed. Much of the White River is currently protected in a patchwork of public lands. Expanding the boundary to include the middle segment of the river as part of the White River Fishery Area ensures similar management and protection for the extent of the river corridor. Protecting the notable trout habitat and water quality of the White River and its tributary streams is important from an ecological and recreational standpoint.

7.2 Significance of Cumulative Effects

The White River Fishery Area boundary expansion project would have positive cumulative effects on the environment. This boundary expansion project protects an important piece of the White River environmental corridor that is currently privately owned, improves public access to the river, and protects tributaries that feed into the White River offering protection to the entire White River watershed. Protection of the trout fishery of the White River and watershed will improve fishing opportunities resulting in additional recreational users and a positive impact on the local economy.

7.3 Significance of Risk

There is little or no environmental risk associated with the proposed purchase of land or land rights by the Department or its subsequent management. Until completion of a management plan (Master Plan), before undertaking individual management activities that would cause significant land disturbance, DNR staff would check for any environmental risks. In addition, staff would consult both the Natural Heritage Inventory for the known presence of Endangered, Threatened, or Special Concern species and the Historical Society database on historic and cultural resources. If not protected and managed, sites along the White River are susceptible to land subdivision and development, threatening the integrity of the river resource.

7.4 Significance of Precedent

The proposed boundary expansion and management are not precedent setting. The Department owns and manages several key properties along the river corridor: the White River Fishery Area, Bibon Swamp State Natural Area and the White River Wildlife Area. The proposed boundary expansion compliments the various existing state land projects and assists in the further protection of a major water resource of the Lake Superior Basin watershed area.

7.5 Significance of Controversy

To date, there has been little controversy regarding the boundary expansion proposal. This project represents the Department's response to local initiatives to protect the river corridor. A local "Friends of the White River" group formed to pursue the issue and to raise awareness and support among local landowners and residents. The "Friends" group is also supported by the Bad River Watershed Association, Inc., the Wild Rivers Chapter of Trout Unlimited and local UW-Extension Lake Superior Basin educators. The Department will hold an open house for public review of the proposed project.

8 Alternatives

8.1 No Action

This alternative does not address the need for protection of the White River and its tributary streams. By not acting, the Department risks missing an opportunity to create an environmental corridor of Department managed properties along the White River. The results could include a loss of resource protection, loss of management options, reduction in public use, and probable ownership fragmentation and potential rural development. Maintaining vegetative buffers along tributary streams is very important to reduce sloughing of stream banks and the resultant clay sedimentation problems. Conversions of use or more intensive uses of these adjacent lands could easily result in a great deal more sediment load in the White River.

8.2 Project Expansion out to the Roads

This alternative would be a huge project of several thousand more acres, would increase public use and access, and would be opposed by most landowners. More opposition likely means fewer willing sellers and less miles of stream protected, which would preclude management capabilities.

8.3 Increase Access Development

This alternative would include similar protection efforts, and would include more access development with more public use. The Department anticipates local opposition with this alternative. More opposition likely means fewer willing sellers and less miles of stream protected, which would preclude management capabilities.

9 Project Feasibility Determination

Based on the information and evaluation presented in this study and on public opinion, Department staff believes that the proposed White River Fishery Area boundary expansion project is feasible from the standpoint of legal authority, ecological soundness, public support and availability of funding.

10 Selected Bibliography

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11 LIST OF APPENDIX ITEMS

- Map 1: Proposed White River Fishery Area Expansion – Locator Map
- Map 2: Proposed White River Fishery Area Expansion
- Map 3: Proposed White River Fishery Area Expansion - Ecological Landscapes of WI
- Table 6: Endangered, Threatened or Special Concern Species of the White River Watershed.
- Table 7: Rare Elements of Bad River-Kakagon Sloughs.
- Public Comments
- Environmental Analysis Certification

Table 6: Endangered, Threatened or Special Concern Species of the White River Watershed. (Source: Epstein 1997).

Common Name	Latin Name	Habitat
Arrow-Leaved Sweet Coltsfoot	*Petasites sagittatus*	Bibon Swamp
Large Roundleaf Orchid	*Platanthera orbiculata*	Muskellunge Lake
Large Toothwort	*Cardamine Maxima*	White River Bottoms
Marsh Horsetail	*Equisetum palustre*	Bibon Swamp
New England Violet	*Viola novae-angliae*	Bibon Swamp
Northern Black Currant	*Ribes Hudsonianum*	
Showy Lady's Slipper	*Cypripedium Reginae*	White River Bottoms, Bibon Swamp
Small Yellow Water Crowfoot	*Ranunculus gmelinii* var. *hookeri*	
Birds		
Blue-Winged Teal	*Anas discors*	Bibon Swamp
Bobolink	*Dolichonyx oryzivorus*	Bibon Swamp
Boreal Chickadee	*Parus hudsonicus*	Bibon Swamp
Common Merganser	*Mergus merganser*	Bibon Swamp
Evening Grosbeak	*Coccothraustes vespertinus*	Bibon Swamp
Golden-Winged Warbler	*Vermivora chrysoptera*	Bibon Swamp
Merlin	*Falco columbarius*	Bibon Swamp
Nashville Warbler	*Vermivora ruficapilla*	Bibon Swamp
Ruby-Crowned Kinglet	*Regulus calendula*	Bibon Swamp
Redhead	*Aythya americana*	Bibon Swamp
Veery	*Catharus fuscescens*	Bibon Swamp
Yellow-Bellied Flycatcher	*Empidonax flaviventris*	Bibon Swamp
Rare Reptiles & Amphibians		
Wood Turtle	*Clemmys insculpta*	Bibon Swamp
Rare Macroinvertebrates		
Coleoptera; Family Hydrophilidae	*Sperchopsis terrelata*	Long Lake Branch
Diptera; Family Chironomidae	*Protanypus sp.*	West Fork White River
Diptera; Family Diamesinae	*Pseudodiamesa sp.*	Tader Creek, Unnamed Stream T46N R7W

		S26-4
Ephemeroptera; Family Caenidae	*Drunella cornuta*	Pre-emption Creek, Tader Creek
Ephemeroptera; Family Caenidae	*Drunella cornutella*	Eighteenmile Creek, Long Lake Branch, Twenty Mile Creek (Pearl)
Ephemeroptera; Family Heptageniidae	*Epeorus vitreus*	Porcupine Creek
Odonata; Family Gomphidae	*Ophiogomphus carolus*	Porcupine Creek, White River
Odonata; Family Gomphidae	*Stylurus scudderi*	White River
Trichoptera; Family Dipseudopsidae	*Phylocentropus placidus*	Twenty Mile Creek (Pearl)
Trichoptera; Family Goeridae	*Goera stylata*	Twenty Mile Creek (Pearl)
Trichoptera; Family Limnephilidae	*Onocosmoecus unicolor*	Bolen Creek, Eighteenmile Creek, Jader Creek, Long Lake Branch, Tader Creek, Twenty Mile Creek (Pearl) East Fork White River
Trichoptera; Family Limnephilidae	*Psychoglypha subborealis*	Bolen Creek, Tader Creek

Trichoptera; Family Psychomyiidae	*Lype diversa*	Long Lake Branch
Trichoptera; Family Philopotamidae	*Dolophilodes distinctus*	Long Lake Branch, Pre-emption Creek, Tader Creek
Trichoptera; Family Rhyacophilidae	*Rhyacophila brunnea*	Jader Creek, Tader Creek
Community*	**Location**	**Description**
Black Spruce Swamp	Bibon Swamp	This forest wetland community occurs primarily in acid peatlands of insular basins. Black Spruce is the dominant tree. As the sphagnum peat accumulates, the canopy may break up and a very acid muskeg will result.
Hardwood Swamp	Bibon Swamp	The hardwood swamp can also be considered a forest wetland community. These deciduous lowland forests on wet to wet-mesic mineral or much substrates outside of active flood plains are often dominated by black ash.
Northern Mesic Forest	Lake Owen Hemlocks	Threats to these communities include logging, increased development, invasive species and suppression of natural disturbance regimes.
Northern Sedge Meadow	Bibon Swamp	Along margins of low-gradient streams and drainage lakes are found a sedge meadow dominated by tussock sedge and bluejoint grass.
Open Bog	Bibon Swamp	This peatland type herbaceous wetland community is dominated by deep layers of *Sphagnum* mosses that isolate the other members of the community from the influence of nutrient-rich groundwater or runoff. Often a pronounced hummock-hollow micro-topography exists.
Shrub Swamp	Bibon Swamp	This swamp is dominated by speckled alder and willow.
Tamarack Swamp	Bibon Swamp	This forest wetland community is dominated by the conifer tamarack. This is a one-generation forest type as the tamarack cannot reproduce under its own shade.
White Cedar Swamp (Northern Wet-Mesic Forest)	Bibon Swamp	This forest wetland community (wet-mesic conifer forest) is dominated by white cedar. Springs and spring runs are present in many cedar forests. The presence of mineral-rich groundwater is a given in this forest community. Concern for the cedar swamps is warranted as reproduction of cedar is

		severely suppressed in the presence of high deer densities.

Table 7: Rare Elements of Bad River-Kakagon Sloughs.

Group Name	Scientific Name	Common Name	Last Observation Date
BIRD	HALIAEETUS LEUCOCEPHALUS	BALD EAGLE	1995
CADDISFLY	LEPIDOSTOMA LIBUM	A BIZARRE CADDISFLY	1996
COMMUNITY	NORTHERN WET FOREST	NORTHERN WET FOREST	1991
COMMUNITY	EMERGENT AQUATIC - WILD RICE	EMERGENT AQUATIC - WILD RICE	1991
COMMUNITY	NORTHERN SEDGE MEADOW	NORTHERN SEDGE MEADOW	1991
COMMUNITY	ALDER THICKET	ALDER THICKET	1991
COMMUNITY	OPEN BOG	OPEN BOG	1991
DRAGONFLY	AESHNA EREMITA	LAKE DARNER	1989
FISH	ACIPENSER FULVESCENS	LAKE STURGEON	1991
PLANT	OROBANCHE UNIFLORA	ONE-FLOWERED BROOMRAPE	1993
PLANT	SCIRPUS TORREYI	TORREY'S BULRUSH	1975
PLANT	POLYSTICHUM BRAUNII	BRAUN'S HOLLY-FERN	1896
PLANT	DROSERA ANGLICA	ENGLISH SUNDEW	1995
PLANT	CAREX ASSINIBOINENSIS	ASSINIBOINE SEDGE	1931
PLANT	RHYNCHOSPORA FUSCA	BROWN BEAKRUSH	1996
PLANT	TRIGLOCHIN MARITIMA	COMMON BOG ARROW-GRASS	1990
PLANT	ARETHUSA BULBOSA	SWAMP-PINK	1987
PLANT	PLATANTHERA DILATATA	LEAFY WHITE ORCHIS	1987

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: September 23, 2004 FILE REF: White River Fisheries Area

TO: Diane Brusoe

FROM: Dave Daniels, Rhinelander

SUBJECT: Public Comment

Craig and Susan Gilbaugh
2601 Junction Road
Ashland, Wisconsin 54806

Re: White River Fisheries Area Designation proposal

Dear Dave:

Thank you Dave and thanks to Dan and Steve for the informational meeting on Saturday, September 11th.

As a landowner on the White River I am very concerned about the protection of my rights and my future generation's rights regarding this property.

When I came to the meeting questions of concern I had were:

1. Are individual landowner rights preserved?
2. Does the DNR have first right to purchase when properties are for sale?
3. Can a landowner refuse to sell to the DNR and sell to whomever they wish?
4. Could this fishery area designation interfere with me selling or passing this property on to my children?
5. When the DNR buys property is the appraised fair market value used or the assessed value on tax statements used?
6. Does this fishery area designation allow for forced easements across an individual's property to access landlocked DNR purchases?
7. Does the fisheries area designation affect of can it affect Bayfield County zoning ordinances?
8. What voice will the White River landowners have in decision making on managing the watershed?

Everyone, especially the property owners loves and respects the White River. The adjacent property owners are the ones who have maintained this environment. It bothered me when one citizen suggested that a White River association board be made up to consist of members of "Friends of the White River" and other groups. Another White River landowner was sitting next to me who stated that this proposed association board should consist of landowners affected by new designations of these lands. The person actually became visibly upset at this suggestion. I asked him if he owned any property on the river and of course he did not. Could you imagine a White River Association board without landowner's representation!

Dan and Steve went out of their way to help answer these concerns of mine. I hope that in the future, as a White River landowner, that our rights will be protected and that will have a voice in how management decisions are made.

Thank you.

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CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: September 24, 2004 FILE REF: White River Fisheries Area

TO: Diane Brusoe

FROM: Dave Daniels, Rhinelander

SUBJECT: Public Comment Letter

Hi Diane. The following note arrived in this morning's mail (September 24, 2004).

From Dick and Evie Berge, 67725 E. Deep Lake Road, Iron River Wisconsin:

"I am excited and pleased that the state will acquire the rights to these properties. Wild country like this should be preserved for all our citizens.

I hope public access will be limited so the land is not over developed for public access. Let's move ahead on this as soon as possible."

Printed on Recycled Paper

9/26/04

Dave Daniels
DNR
David.Daniels@dnr.state.wi.us

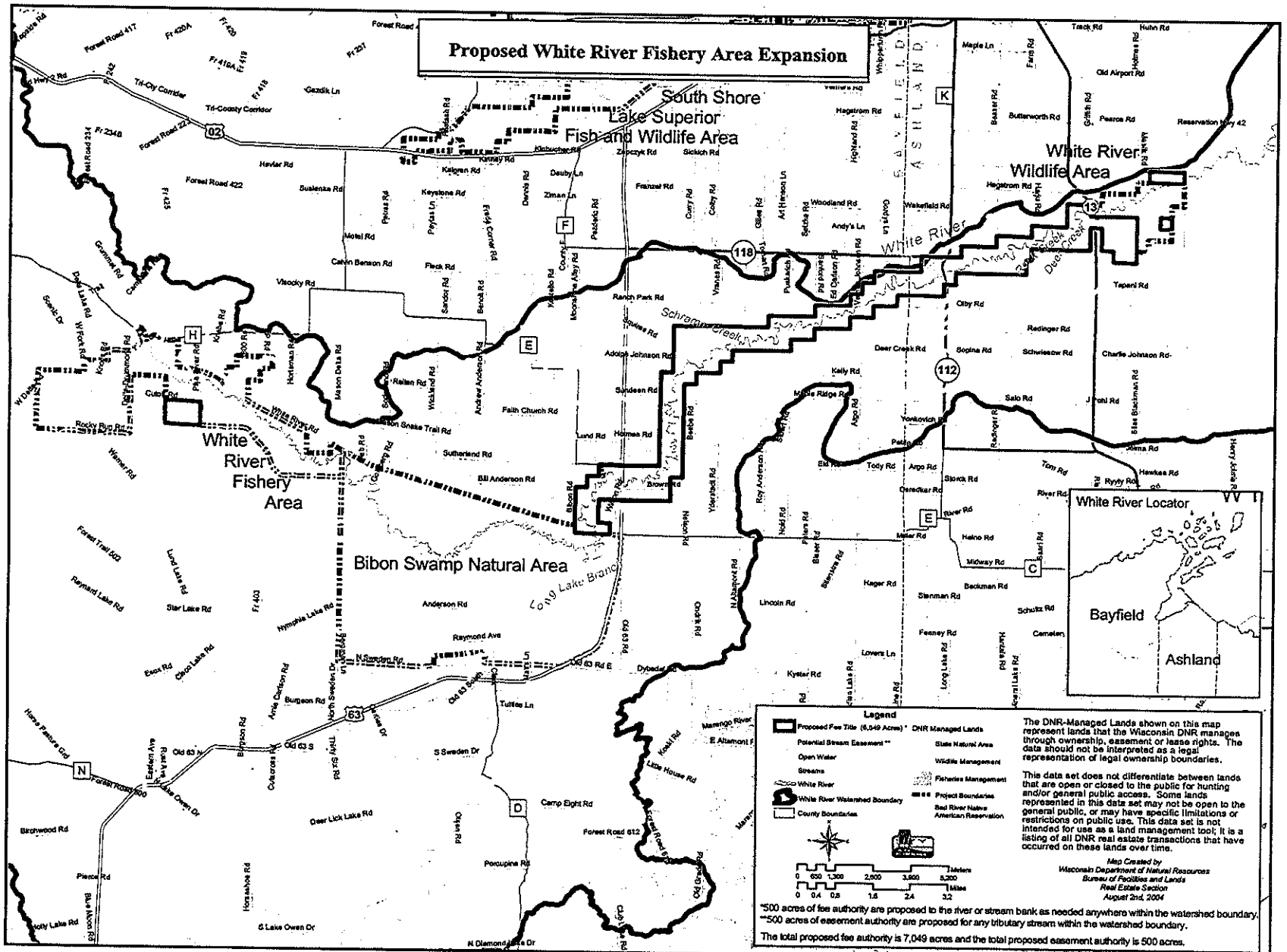
Dear Dave,

I have read the Draft Feasibility Study dated August 2004 regarding the proposed White River Fishery Area Boundary Expansion and was compelled to share some brief comments.

My wife and I live in Delta, WI and are property owners near the headwaters of the White River. I am also on the Conservation Congress and serve on the Trout Committee. My familiarity with this river, the issues involved, and the already established protected areas along the White lead me to strongly encourage the pursuit of this project. The merits are clear and substantial.. Most importantly, the initiative for this project is citizen driven. This makes this project even more important for the White River and future projects elsewhere.

Thank you for the opportunity to comment on this topic.

Sincerely,
Todd Bucher
Bayfield County


Proposed White River Fishery Area Expansion
South Shore
Lake Superior
Fish and Wildlife Area
White River
Wildlife Area
White River
Fishery
Area
Bibon Swamp Natural Area
White River Locator
Bayfield
Ashland
Legend
Proposed Fee Title (6,049 Acres) *
Potential Stream Easement **
Open Water
Streams
White River
White River Watershed Boundary
County Boundaries
DNR Managed Lands
State Natural Area
Wildlife Management
Fisheries Management
Project Boundaries
Bad River Native American Reservation
The DNR-Managed Lands shown on this map represent lands that the Wisconsin DNR manages through ownership, easement or lease rights. The data should not be interpreted as a legal representation of legal ownership boundaries.
This data set does not differentiate between lands that are open or closed to the public for hunting and/or general public access. Some lands represented in this data set may not be open to the general public, or may have specific limitations or restrictions on public use. This data set is not intended for use as a land management tool; it is a listing of all DNR real estate transactions that have occurred on these lands over time.
Map Created by
Wisconsin Department of Natural Resources
Bureau of Facilities and Lands
Real Estate Section
August 2nd, 2004
*500 acres of fee authority are proposed to the river or stream bank as needed anywhere within the watershed boundary.
**500 acres of easement authority are proposed for any tributary stream within the watershed boundary.
The total proposed fee authority is 7,049 acres and the total proposed easement authority is 500 acres.