Presentation for the Minnesota Department of Natural Resources - Central Region and the Friends of the Vermillion River Water Trail (FVRWT)

FVRWT Mission:
To enhance the recreational, educational and resource protection opportunities of the Vermillion River; and to increase public awareness of and appreciation for the river’s aesthetic and wildlife habitat values.

Goals of this project-
Identify potential canoe trail access sites on the upper and lower reaches of the Vermillion River
Identify potential kayak trail access points in the gorge portion of the Vermillion River
Explore and develop the process of legislative action required to change the designation of the Vermillion River to an official recreation river for water trails
The Vermillion River Watershed is approximately 372 square miles lying mostly within Dakota County and partially within Scott County of the seven county Metropolitan area of the Twin Cities. The river flows 38 miles between its start and Vermillion Falls at Vermillion Falls Park in Hastings, MN. The river meanders through open grassland and agricultural fields until it reaches the falls at which point it rapidly descends through the gorge falling approximately 90 feet. Portions of the river are designated as trout streams offering rare trout fishing opportunities within a greater metropolitan area. Despite the areas of high quality trout habitat, pollution remains a critical issue. Urbanization of agricultural land places development pressure on the river and its unique habitats. Recreation on the river includes hunting, fishing, inner-tubing, birdwatching, canoeing, and kayaking in the gorge. Preserving and enhancing the existing conditions of the Vermillion River for passive recreation such as a water trail would greatly benefit the river as well as the surrounding communities and a growing population of recreational users.
Inventory Analysis
Local - Eureka Twp to Empire Twp

Legend
- Municipal Rty
- Vermillion River
- LandOwnerPublicParcel
- CITY OF FARMINGTON
- IND SCHOOL DIST 192

Vermillion River Water Trail
Friends of the Vermillion River Water Trail
Center for Urban and Regional Affairs
Community Assistance Program
University of Minnesota, Summer 2005
Graduate Research by
Christopher Ochs
MLA and MURP Candidate
Inventory Analysis
Local - Vermillion to Hastings

NO PARKS!
But the Right-of-way will do!

Eric and Rickey are off tubing.

Vermillion River Water Trail
Friends of the Vermillion River Water Trail
Center for Urban and Regional Affairs
University of Minnesota, Summer 2005

Graduate Research by
Christopher Ochs
MLA and MURP Candidate

Board # of 120
The Vermillion River enters Hastings from the west and winds through residential and industrial areas, but also becomes part of Hastings valuable extensive park system.
Gorge length is over a half mile long, approximately 3400 feet from the falls at Vermillion Falls Park on the east side of US Hwy 61 to just past 18th street.

Wall height along the gorge ranges between 40 and 80 feet from crest to toe consisting of limestone bedrock formations atop of St. Petersburg sandstone bedrock.

Gorge is bounded by city parks for most of the stretch.

Flow is measured in Empire Twp. The annual mean flow for 33 years of data is 76.5 cfs and has ranged between 10 cfs and 400 cfs.

Falls height is approximately 50 feet at an elevation of 774 ft. Elevation at the bottom is 724 ft. and drops to 684 ft. at the 18th street overpass.
Series of rapids attract a fleet of kayakers. Best source of rapids for kayaking within 2 hours of the metropolitan area. Classified as Class II and III rapids by American Whitewater kayaking organization.

www.americanwhitewater.org

Up to 40 kayakers per week recreate when flows exceed 80 cfs. Kayak-able as low as 40 cfs.

Seven "holes" in the stretch where kayakers exercise their skills. Difficult and dangerous to descend gorge, but it is done by kayakers and the curious alike.
Gorge walls are extremely steep and very difficult to ascend or descend, but not impossible in most areas. Numerous recreaters and curious explorers manage to navigate their way to the river. Spot elevations are measured in feet.
Flat wetland complex

Moderate stream flow with varying channel depths between two feet and 6 inches (July 2005)

Sandy bottom along most of the channel, silt/sand bed in most stretches beyond rail-road, walkable if needed

Potential canoe landing at 10th street lift station

Most adjacent land is owned by city as park land

Opportunity to connect bike trail with canoe trail at landing

Vermillion River Water Trail
Beyond 10th street, the sloughs offer potential canoe routes connecting several existing assets: Lake Isabel, Lk. Isabel boat ramp, Hastings Marina and the Mississippi and St. Croix Rivers.

Fallen trees obstructing passage near SE portion of Lake Isabel

Trail choice to the Mississippi River, one trail meanders north for approximately two miles; the other travels south for more than 5 miles

North trail has potential to connect to Lake Isabel and marina on the Mississippi and thus the Mississippi and St. Croix Canoe Trails.
Proposed Canoe Trail - Farmington to Empire

Start here: Farmington's Rambling River Park

1st segment - 4 miles
2nd segment - 7.33 miles

Prairie River, open Grass-land in Western Vermillion Twp.

Vermillion River at Empire monitoring station

Upstream
Downstream

Vermillion River Water Trail

Friends of the Vermillion River Water Trail
Center for Urban and Regional Affairs
Graduate Research by Christopher Ochs
MLA and MURP Candidate
Ownership along the Vermillion River in Vermillion township is all private, two exceptions would be the Right-of-Ways along County roads 85 and 62 (or 190th street.)

Providing a municipal park in Vermillion would create a controlled access for canoeists and other users of the river, until then, the right-of-way access would suffice.

Hastings’ Park system is extensive offering a natural fit for canoe and kayak trails potentially increasing recreation, tourism and associated economic benefits.

Portage required before falls and around gorge, resume trail at Old Mill Park.
The 2/3 mile stretch through the gorge provides a series of class II and III rapids for kayakers. Three locations and access trails will provide put-in and take-out points for kayaking. Five locations for safety and rescue access will provide anchoring stations and/or trails for rescue equipment.
The northwest intersection of the Vermillion River and 10th st provides an opportunity for a canoe trailhead. Parking could be located at either the Public Works facilities or the lift station on 10th st. Additionally, re-alignment of the existing bike trail from CP Adams Park would pull the bike path from roadside and into the trailhead area. Utilizing former rail bridge piers on the river to create an overpass for bicyclists and pedestrians brings together both terrestrial and water trail systems.
This portion of the river travels east and south from the 10th Street landing for approximately 6.7 miles until it reaches the MN DNR boat landing in Ravenna Twp. Most of the adjacent landscape is protected as the Ravenna Wildlife Management Area.

The river winds through natural openings of the Mississippi River floodplain. Water depths observed at the end of September ranged between a shallow 8 inches in the area of Bull Frog Pond to two feet plus in the center channel. The occasional snag requires portaging, however, most can be circumvented.

Initial funding would help open the channel—freeing the snags that obstruct passage, installing necessary signage to keep canoeists on the proper trail and a concerted effort to remove all of the debris. A stewardship plan to follow would provide routine clean-ups, conservation officer patrols, and another section of water that is managed at multiple levels in an on-going effort to clean our waterways.
The south water trail has several connection opportunities: the descent out of the gorge and the upper Vermillion Water Trail; the Mississippi River water trail above the convergence with the St. Croix River - a trail from the Hastings Marina, bypassing motor boat traffic; and an excellent starting point from the 10th street landing for a 4 hour paddle terminating at the DNR boat landing in Ravenna Twp. off Ravenna Trail (10th street or hwy 54.)
The National Parks Service has prepared a useful document detailing a variety of launch types for a spectrum of terrain challenges. Examples of these launches were selected from this document that may best suit the difficult terrain challenges of the Vermillion River Gorge.

Source: Logical Lasting Launches, National Parks Service, U.S. Department of the Interior

Dimensions of watercraft used on the Vermillion River. Canoes are long and require adequate space for handling on terrestrial trails. Whitewater kayaks (bottom) are generally shorter and require less space.

Concept drawing of the 10th Landing at the 10th Street Lift station; re-aligned bike path is in the background utilizing existing piers from former railroad bed. Rip-rap and riparian woody vegetation help reduce erosion thus preserving landing during significant rain events and higher river volume. Canoe trailhead may provide access for all level of users including the physically disabled. The water trail continues into Bull Frog Pond and the Mississippi and St. Croix Rivers beyond.
The Vermillion River extends from its origins in Scott County at New Market Township, winds through Dakota County and terminates at two locations on the Mississippi River.

Canoeing the Vermillion River is feasible for most of the river, the prime beginning point is in Rambling River Park in the city of Farmington due to the existing public infrastructure. Some clearing of downed trees / snags may be necessary for reasonable passage but are not obstacles to the implementation of the water trail.

Portages are necessary prior to Vermillion Falls at Vermillion Falls Park in Hastings and a trailhead to continue the water trail is feasible at a point below Old Mill Ruin in Old Mill Park, Hastings. This portion of the water trail would continue to the Mississippi River and the St. Croix River water trails.

The Vermillion River Gorge is currently utilized by kayakers for its fast water features in a series of rapids. Improved accessibility will provide safer access to the put-in and take-out points and allow for proper maintenance and safety/rescue access.

Establishing the Vermillion River as a recreational water trail may provide opportunities for outside funding from various levels of government agencies, e.g. local municipalities, Dakota County, MN Department of Natural Resources and the National Parks Service.

Creation of the water trail and improvements in the gorge may also provide economic opportunities for the cities along the Vermillion River. Increased awareness would attract recreational users to the water trail and increase the use of park systems for passive recreation such as birding, hiking, and biking. Additional tourists and recreational users create opportunities for local spending.
Research and presentation prepared by:

Christopher J. Ochs, Graduate Studies Research
(Candidate for MLA and MURP degrees)
Through the Community Assistance Program (CAP)
for the Center of Regional and Urban Affairs (CURA),
University of Minnesota, Twin Cities

Resources and contributors:

Representative Denny McNamara
Susan Willhite, MN DNR
Michele Hanson, MN DNR
Barry Bernstein, Parks and Recreation, City of Hastings
Kevin Smith, Parks and Recreation, City of Hastings
Paul Seleski, Fire and Safety, City of Hastings
Tom Montgomery, Public Works, City of Hastings
Laura Jester, Watershed Coordinator, Dakota County SWCD
Dave Holmgren, GIS, Dakota County SWCD
Todd Lusk, GIS Specialist, Dakota County
National Parks Service
Dakota County, URL
Dakota County Soil and Water Conservation District, URL
Department of Natural Resources, State of MN, URL
American Whitewater - http://www.americanwhitewater.org
Rapids Riders - http://www.rapidsriders.net/

Christopher Ochs
850 Dayton Avenue
Saint Paul, MN 55104
loons_ochs@comcast.net