

DATE: June 16, 2005

TO: Laura Bub, Central Office

FROM: Pamela Toshner, Superior

SUBJECT: NR 104 De-list - diffuse surface water tributary to Black River, Douglas Co.

WDNR Pattison State Park WWTP historically discharged wastewater to a diffuse surface water tributary to the Black River. This discharge began at the WWTP outfall in the NE1/4 SE1/4 S21 T47N R14W and extended to the confluence with the Black River. The WWTP's sand filter failed approximately 3-4 years ago, and a discharge has not occurred since. Instead the Park hauls its waste to the City of Superior's treatment facility. There are currently no plans to change the hauling arrangement. Thus, it is appropriate to de-list this segment from the NR 104 revision.



Region ~~SW~~ NOR County Douglas Report Date 11/1976 Classification LAL
 Water Body: Black River, Unnamed trib
 Discharger: WDNR Pattison State Park

If stream is classified as Limited Forage Fish (LFF) or Limited Aquatic Life (LAL), check any of the following Use Attainability Analysis factors that are identified in the classification report:

- Naturally occurring pollutant concentrations prevent the attainment of use
- Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met
- Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place
- Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or operate such modification in a way that would result in the attainment of the use
- Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses
- Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact

Supporting Evidence in the report (include comments on how complete/thorough data is)

- Biological Data (fish/invert)
- Chemical Data (temp, D.O., etc.)
- Physical Data (flow, depth, etc.)
- Habitat Description
- Site Description/Map
- Other: photos

Historical Reports in file:

11/1976 - C.G. Hansen

Additional Comments/How to improve report:

- UAL bic designated as "diffuse SW." -- not sure by info presented in report if this is appropriate.

Department of Natural Resources

INTRA-DEPARTMENT

MEMORANDUM

..... Spooner

Station

Date November 4, 1976

IN REPLY REFER TO: 3200

TO: Anthony S. Earl
FROM: L. G. Hansen
SUBJECT: Surface Water Classification
(NR 104) - Pattison State Park, Douglas County

Pattison State Park, located in northwest Douglas County, discharges treated wastewater to the Black River. The treatment system consists of a two-chambered septic tank, a sand filter with a dosing chamber, and a chlorinator. The chlorinated effluent from the sand filter flows in a natural drainageway, 75 yards through upland, to the Black River at a point 800 feet below Big Manitou Falls. The drainageway has a steep gradient from the sand filter to near the river where the effluent runs down the near vertical sandstone walls of the river gorge. Without the effluent from the park treatment system, the drainageway would normally be dry, except in times of runoff.

The drainageway is crossed by one unmaintained hiking trail. No structure exists at the trail crossing; the hikers must step across the effluent. To a hiker on the trail, there is no indication that the effluent is not normal surface drainage or spring water. A second hiking trail follows the river bank opposite the effluent, at river elevation. Contact recreation in the river near the effluent is probable.

The Black River, below Big Manitou Falls, is a moderately valuable recreation resource and is a highly valuable aesthetic resource. This portion of the river supports a fish population of brown trout, warm water game fish, and minnows. Winter spawning runs of burbot occur in the lower Black River. Summer low flows of approximately 1.0 cubic feet per second have been observed at the point of effluent introduction.

A map and photographs are attached.

RECOMMENDATION

The natural drainageway from the sand filter to the Black River shall be classified as "diffused surface waters" (NR 104.02(1)(b)) and shall be placed in the "marginal surface waters" (NR 104.02(3)(b)) variance category.

Th Black River shall meet recreation and fish and aquatic life standards (NR 102.02).

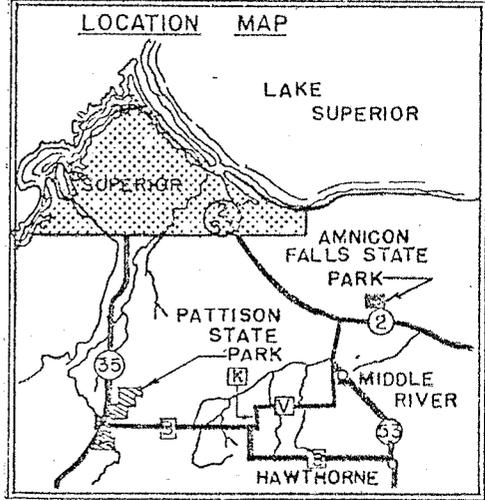
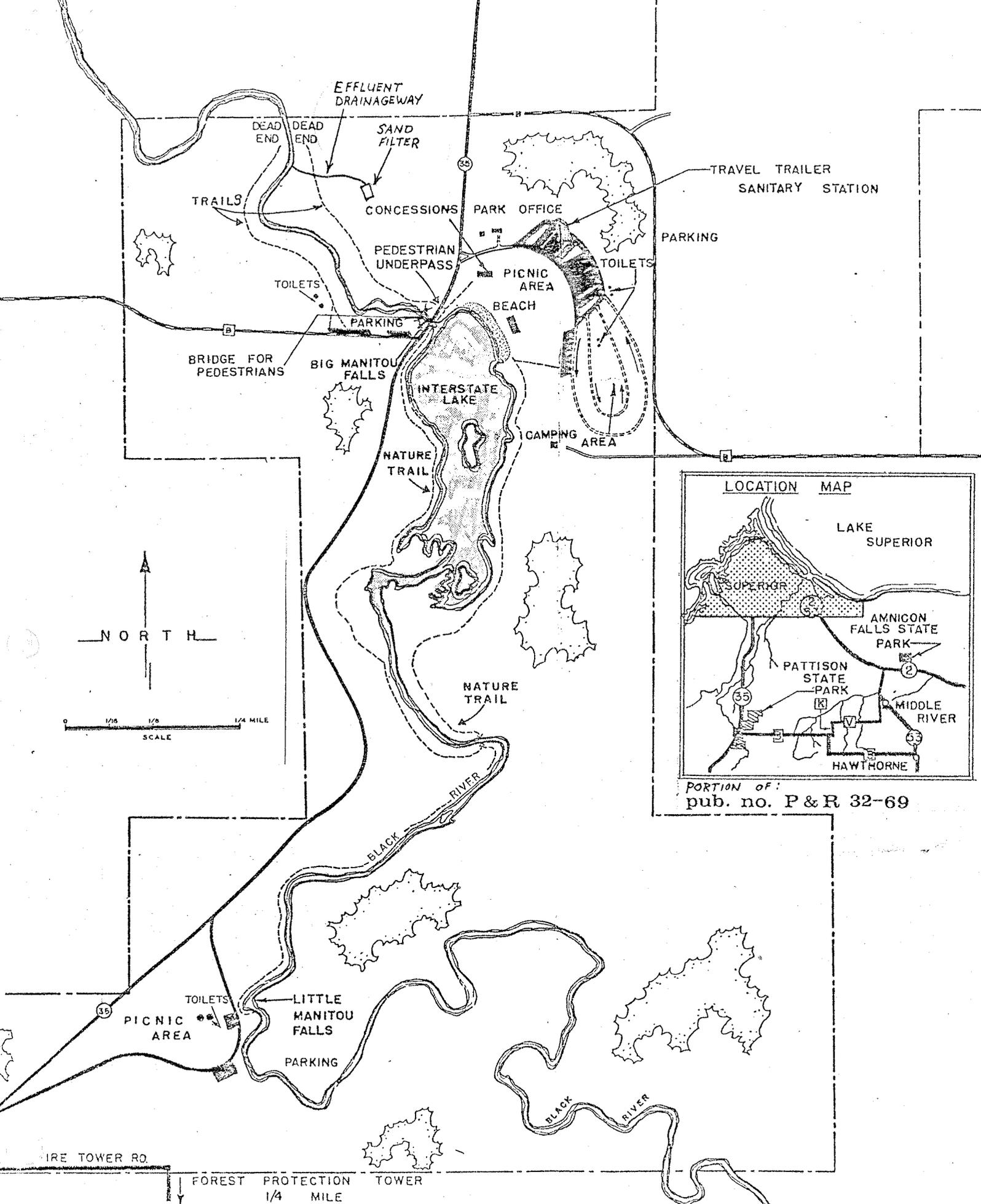
By Ted R. Smith
Ted R. Smith

TRS:mm

Attachments

NOTED:

Date



PORTION OF:
pub. no. P & R 32-69

PATTISON STATE PARK

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

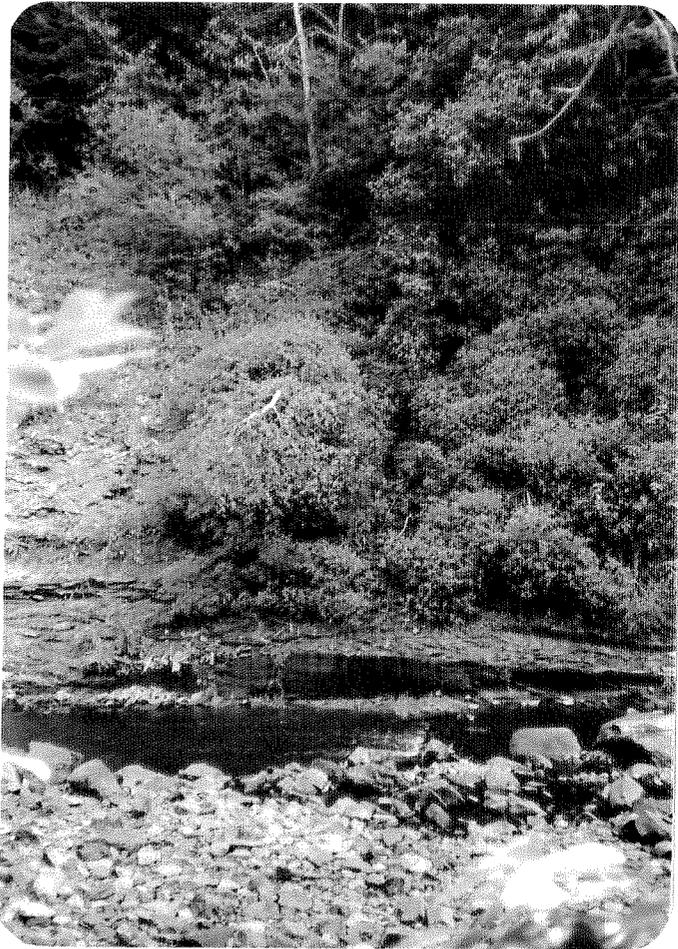


VIEW FROM NORTH
1976

PATTISON PARK
TREATED EFFLUENT
CROSSING HIKING TRAIL

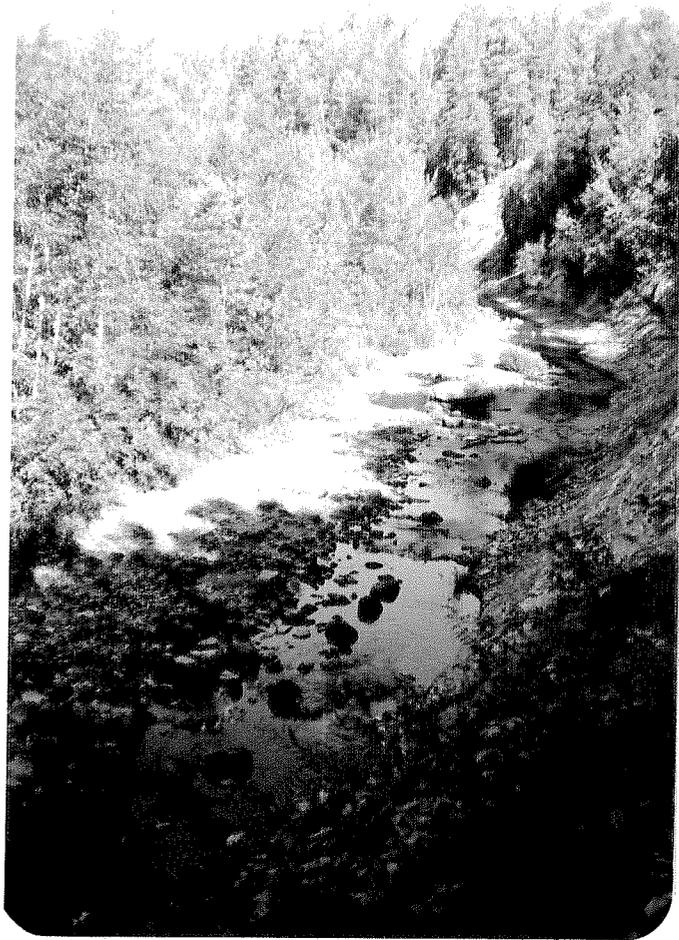


VIEW FROM SOUTH
1975



PATTISON PARK
TREATED EFFLUENT
ENTERING BLACK RIVER
1976





BLACK RIVER
1976