



FISHERIES WARMWATER STREAM RECONNAISSANCE REPORT

REGION 5	AREA Lake City	STREAM NAME Plum Creek	TRIBUTARY NO. M-34-56-4-2	LENGTH 6.3 mi.
COUNTY Dodge, Olmsted		WATERSHED NAME, NO. Zumbro River - 41	SOURCE (T.R.S) T108N R16W S36	MOUTH (T.R.S) 108N 15W S22

DATE(S) OF ASSESSMENT: 8/15, 26, 30 and 9/3/02
ASSESSMENT PURPOSE: Reconnaissance to assess non-game/minnow species presence-absence and to assess current stream conditions.

SIMILAR REACH*	STATION	STREAM MILE	LENGTH	AVG. WIDTH (ft)	ACRES
I	Various	0.0-4.3	Various	8.5	----
II	Various	4.3-5.5	Various	4.0**	----
III	Various	5.5-6.3	Various	3.1	----

* From Initial Survey
 ** 2002 Recon

Discussion:

STREAM MILE 0.0-.75: Field notes describe this stretch of Plum Creek as highly eroded, with vertical stream banks of raw, black dirt common and as high as 8 feet. Flood flows literally tear through a sparsely vegetated riparian corridor that has few obstructions in the way of ground cover. This is mainly because of a dense overhead canopy that prevents everything except wood nettles from growing. Instream fish habitat is poor. Log jams are frequent and pools are shallow and of low quality. Despite the apparent massive flood flows that roll through, coarse stream substrates are maintained.

STREAM MILE .75-1.4: Steep, eroded banks continue as in the previous stretch. Similarly, row crops dominate outside the riparian corridor, though encroachment nearly to the stream edge is more common. Coarse substrates were more common in the upper end than in the lower end. Log jams are common, one close to mile 1.0, was about 100 feet in length. Maximum pool depth in the stretch was 4 feet. Good pool/riffle complexes were noted throughout.

STREAM MILE 1.4-2.6: Channel features were fairly uniform from start to finish. Substrates were a mix of sand and gravel between cobble riffles. Pools are uncommon, and of low quality (< 2 ft deep, little cover). Channel width ranged from 3-12 feet, and bank height was 2-10 feet. Side channel areas were occasionally composed of clay and were slippery. As in the case downstream, the corridor is heavily shaded, ground cover is scarce, and severe bank erosion is common. Raw, exposed banks are vertical and composed of black topsoil. Two stream crossings have been built (no permit) using old culverts near mile 1.7.

Stream: Plum Creek

Date: 2002

SUMMARY:

Plum Creek remains unchanged since it was surveyed in 1993. For the most part, it can be described as a flashy warmwater feeder stream. The majority of the riparian corridor is heavily shaded by box elder, cottonwood and silver maple. The stream banks are comprised of black dirt, are vertical, and severely eroded. Steam bank vegetation is lacking because of lack of sunlight. Flood flows overtop the banks and completely tear through the riparian corridor, especially in the lower portions of the stream near the mouth. Minnows are present but diversity is low. Fish habitat is poor, with areas of cover located in and around log jams that occur frequently. Bottom substrates are gravel and sand, with cobble/rubble riffles. Broken limestone substrate is present, but more so near the mid to upper reaches of the steam.

Plum Creek provides low flow augmentation to the South Branch Middle Fork Zumbro River, but also sediment during flood flows. It may provide some spawning and nursery habitat for smallmouth bass, but only near the mouth. This type of habitat for smallmouth bass would be of great benefit, if flows were only more stable.

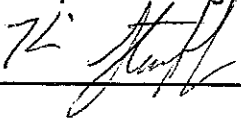
Credits and Signatures:

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Report Completed by: Al Schmidt

APPROVED BY:

Area Supervisor's Signature



3-28-03

Regional Fisheries Manager's Signature

Date