

DATE: August 29, 2007

TO: Water File

FROM: Tim Larson - Poynette

SUBJECT: East Branch Lodi Spring Creek - Project Evaluation

Introduction

The east branch tributary of Lodi Spring Creek flows approximately 2 miles through Section 25, 26 of T10N, R8E, entering Lodi Spring Creek (Class II trout stream) just upstream from Hwy 60 in downtown Lodi. Previous surveys in 1985 and 2003 documented the presence of a wild brown trout fishery. In 2004 a 21 acre parcel was purchased by DNR, which contained 800' on the lower portion of the tributary. During spring of 2007 a cooperative project between DNR, Aldo Leopold Chapter of Trout Unlimited and the Columbia County Land Conservation Department was conducted.

Habitat Project

The 800' of stream thread on the DNR parcel had been ditched in the 1930s. The spoil banks provided a high bank, surrounded by wetland. Box elder and willow had grown on the spoil banks, which were removed. The stream was approximately 20-25' wide, with shallow average water depth, 12". The finished project narrowed the stream to 10-12' and 18-24" average depth. Trees were removed in February and the stream habitat work conducted in April. Both banks received riprap and various rock structures were installed in the stream. The total cost was \$39,600 which was \$24.78/ft for one bank. Typical stream work is usually about \$12-15/ft for one bank. This project was higher due to the wet nature of the work site. This required double loading/hauling of the rock, ie. transport from quarry to a loading zone, then re-loading in tracked dump trucks for delivery to the stream bank. A major snowstorm during the project added to the adverse working conditions. In addition, Trout Unlimited provided for a very nice foot bridge, which is anticipated to be part of a future City of Lodi hiking trail.

Response of the Fishery

Single run electroshocker surveys on this 800' stretch were conducted during June 1985, October 2003 and August 2007. Results are illustrated in the graph on page 2. Brown trout were divided in three size groups for comparison, 3-8", 9-11" and 12"+. (These size groups were used because the 2003 data was not available by inch group). The post habitat, August 2007, survey shows a dramatic increase in 3-9" fish, 10x increase from 2003. The 1985 data for this size group would not have included the young of year, as they would have been too small to sample. Increases of 5-10x were noted for the 9-12" group and the 12"+ size group was 2-3 times greater.

This tributary joins the main branch of Lodi Spring Creek about ¼ mile downstream, thus the source of the fish that moved into the habitat improvement area. The 2007 density of trout in the habitat improvement area is about 30-50% of the level of the same size groups in the main branch of Lodi Creek. However the habitat area supports a respectable population of brown trout and the immediate response to the habitat improvement work is far greater than expected. The site should continue to be surveyed to monitor future changes.



