

Case Study - Woolen Mills

One case study on the affects of dam removals is the Woolen Mills Dam on the Milwaukee River. This dam had a head of 14' and flowed 70 acres of floodplain. After several unsuccessful attempts to obtain outside funding to replace the dam, the City of West Bend asked the DNR to help them develop a removal plan which included development of additional parkland within the former impoundment. In May of 1988 the dam was removed.

After removal, the area was seeded with smartweed and barnyard grass to stabilize the exposed sediments. Over the next few years, trails and parklands were developed throughout the area. At the upper end of the impoundment, approximately 1000' of the river channel was reconstructed. That area was found to be artificially wide and shallow due to deposition of larger bedload material when impounded.

Fish habitat response was very good and took approximately 3 years to occur naturally. That change was best illustrated by the response of study reach at the lower end of the impoundment. Steady improvement was observed in habitat quality rating as riverbanks stabilized and coarse substrate was exposed.

The fish community at Woolen Mills also responded well. Carp catch per unit effort plummeted, smallmouth bass catch increased significantly and the Index of Biotic Integrity improved as well. Angler response was also good. Angler use in the Woolen Mills reach in 1990 was 192 hours/acre compared to 18 hours/acre in an impounded reach a short distance upstream.

Perhaps the highlight of the Woolen Mills project from the community's standpoint was the development of recreational use of the area. Trails, a canoe launch and ballfields were developed. The area has now become one of the community's most popular public parks.

Case Study - North Avenue

The North Avenue Dam on the Milwaukee River was a much larger structure than Woolen Mills. It was the first structure upstream from Lake Michigan and within the City of Milwaukee. It blocked anadromous runs of salmonids and other fishes from Lake Michigan. With its breach, 30 river miles were opened up to accommodate those runs, providing 7,708 hours of fishing directed at salmonids during 1998 upstream of the dam.

The fish community response to the North Avenue Dam removal was very significant. The catch of common carp decreased dramatically and the catch per mile of smallmouth bass increased significantly. Catches of rock bass and redhorse suckers increased as well.