Meyers Valley Subwatershed

Meyers Valley (map 7) subwatershed is located south of Arcadia with American Valley to the east and the Trempealeau River to the north where Meyers Valley Creek drains to. Meyers Valley contains about 5,000 acres.

Water Resource Conditions

Meyers Valley Creek - is a 4.0 mile tributary of the Trempealeau River. The stream is managed as a Class III brook trout fishery. The 1990 fish survey found one brown trout (12.5 inches in length) and seven minnow and other forage species. The dominant substrate type is shifting sand in the lower reach, and gravel and clay in the upper reach. The stream HBI was 4.02, indicating slight organic loading, and the Habitat Rating was "fair".

Water resource problems in Meyers Valley Creek include extreme sedimentation of riffles and pools, streambank erosion, elevated water temperatures, and lack of suitable instream cover. A survey conducted in summer 1990 recorded a maximum stream temperature of 81° F, which is near the lethal limit for trout. Land use in the stream corridor is mostly pasture and woodland. Cattle grazing on streambanks is having a severe impact on the stream.

The lower 0.5 stream mile of Meyers Valley Creek is severely impacted by organic loading from the A-G Cooperative Creamery in Arcadia. The stream channel has also been illegally ditched below the creamery by local landowners. Stream improvements in the lower reach are not expected until these problems are addressed.

Water Resource Objectives

The following water resource management objectives are recommended for the Meyers Valley subwatershed:

1. Improve habitat conditions in Meyers Valley Creek sufficient to enhance the Class III fishery.

2. Improve habitat conditions for macroinvertebrates and fish by reducing sediment and organic loading to the subwatershed streams.

American Valley Subwatershed

American Valley (map 7) is the largest subwatershed with approximately 15,100 acres. The city of Arcadia is located at the northwestern edge of the subwatershed along with the Arcadia Golf Course. American Valley subwatershed drains three valleys: Thompson Valley, American Valley, and Newcomb Valley. These valleys converge to form Turton Creek which drains to the Trempealeau River.

Water Resource Conditions

Turton Creek - is a 3.6 mile tributary of the Trempealeau River at Arcadia. American Valley Creek and Newcomb Valley Creek join to form Turton Creek. The stream is managed as a forage fishery and the 1990 survey found three northern pike, two rock bass and eight minnow and forage species. The dominant substrate type is shifting sand, with lesser amounts of gravel and silt. The stream HBI was 3.55, indicating slight organic loading, and the Habitat Rating was "fair".
Water resource problems in Turton Creek include sedimentation of riffles and pools, elevated water temperatures, and lack of suitable instream cover. A survey conducted in summer 1990 found a maximum stream temperature of 88° F, well above the lethal temperature for trout survival. The stream is also extremely turbid during runoff events, and gravel in the riffle areas is highly embedded. The stream is wide and shallow and the lower portion has been previously straightened.

Land use in the stream corridor is mostly open meadow and cropland. Turton Creek has little potential for fishery improvement.

American Valley Creek - is a 4.1 mile tributary of Turton Creek. The stream is managed as a forage fishery; however, the 1990 survey found 24 brook trout (3-12.9 inches) representing two different age classes. In addition, the survey found Johnny darter and brook stickleback. The stream substrate is mostly sand with some gravel and silt. The stream HBI was 4.32, indicating slight organic loading, and the Habitat Rating was "fair".

Water resource problems include sedimentation of riffles and pools and streambank erosion. Land use in the stream corridor is mostly open pasture and meadow. Streambank erosion is severe in the pastured areas and gravel in the riffles is moderately embedded.

Brook trout reproduction and carryover could be considerably improved in American Valley Creek through implementation of BMPs.

Newcomb Valley Creek (Cr. 3-5, township of Arcadia, Trempealeau Co.) - is a 4.6 mile tributary of Turton Creek. The stream is managed as a forage fishery, but the 1990 survey found five brook trout (2-8.4 inches) suggesting some natural trout reproduction. The survey also found Johnny darter and logperch. The stream substrate is mostly shifting sand with

some gravel. The stream HBI was 3.21, indicating no apparent organic pollution, and the Habitat Rating was "fair".

Water resource problems include sedimentation of riffles and pools, scarcity of instream cover, and streambank erosion. The stream is extremely turbid during runoff events, and gravel in the riffle areas is highly embedded. Land use in the stream corridor.

Newcomb Valley Creek has some potential for fishery improvement since some natural brook trout reproduction appears to be occurring in the headwaters area.

Creek 32-6 (township of Arcadia, Trempealeau Co.) - is a 1.6 mile tributary of Newcomb Valley Creek. The stream is managed as a forage fishery and the 1990 survey found one brook trout (8 inches), one largemouth bass and four forage species. The stream substrate is mostly sand with some gravel and rubble.

Land use in the stream corridor is mostly open pasture and streambank erosion is moderate. Gravel in the riffle areas is highly embedded with sand.

Water Resource Objectives

The following water resource objectives are recommended for the American Valley subwatershed:

1. Enhance the forage fish community in Turton Creek.

2. Improve habitat conditions in American Valley Creek sufficient to upgrade the stream to a Class II trout fishery.

3. Improve habitat conditions in Newcomb Valley Creek sufficient to upgrade the stream to a Class III trout fishery.

4. Improve fish and macroinvertebrate habitat in the subwatershed streams by reducing sediment and organic loading.

North Creek Subwatershed

North Creek (map 7) subwatershed is north of Arcadia between American Valley and Plum Creek subwatersheds. The western boundary is the Trempealeau River which North Creek empties into. North Creek contains 7,000 acres.

Water Resource Conditions

North Creek - is a 6.5 mile tributary of the Trempealeau River. The stream is managed as a forage fishery and the 1990 survey found one brook trout (10.5 inches) and nine minnow and forage species. The stream has a shifting sand substrate with some gravel and rubble. The stream HBI was 3.12, indicating no apparent organic pollution, and the Habitat Rating was "fair".

Water resource problems include sedimentation of riffles and pools and scarcity of stable instream cover. Land use in the stream corridor is mostly open pasture and meadow and streambank erosion is light to moderate. A portion of the stream was previously ditched, but the streambanks are now stable. The upstream reach has some fishery potential with improvement in habitat conditions.

Water Resource Objectives

The following water resource management objectives are recommended for the North Creek subwatershed:

1. Improve habitat conditions in North Creek sufficient to upgrade the stream to a Class III trout fishery.

2. Improve fish and macroinvertebrate habitat in the subwatershed streams by reducing sediment and organic loading.

Plum Creek Subwatershed

Plum Creek (map 4) subwatershed is located southwest of Whitehall with a small part of the city of Whitehall included in it. Plum Creek, plus several smaller creeks, drain this subwatershed directly to the Trempealeau River. This subwatershed does contain approximately 13,500 acres. Joe Pietrek, Jr. County Park, city of Whitehall Golf Course, and the Trempealeau County Farm are also located in this subwatershed.

Plum Creek - is a 4.6 mile tributary of the Trempealeau River. The stream is managed as a forage fishery and the 1990 survey found 9 minnow and other forage species. The stream has a shifting sand substrate with some gravel and rubble. The stream HBI was 2.55, indicating little organic pollution, and the Habitat Rating was "fair".

Water resource problems in Plum Creek include streambank erosion and sedimentation of riffles and pools. Streambank erosion is moderate to heavy in the pastured areas and gravel in the riffle areas is highly embedded. Land use in the stream corridor is mostly pasture and woodland.