

P-20-R-9 Job 111. Stream Sediment Investigation - Donald Bianchi

Good trout populations in a stream depend upon suitable water quality. The "Stream Sediment Investigation" on Bluewater Creek proved that agricultural siltation reduced water quality and all but eliminated the trout population.

Agricultural silt pollution in Bluewater Creek is caused by two major land-use practices. These are:

1. Improper irrigation methods, which cause extensive erosion to croplands, resulting in the loss of large amounts of topsoil into Bluewater Creek.
2. Floodplain clearance and/or overgrazing, which destroys stream bank vegetation.

A pilot project on Bluewater Creek is proposed to demonstrate methods to improve land-use practices which cause agricultural silt pollution.

These methods are:

1. Lining irrigation ditches and encouraging more efficient use of irrigation water, thus reducing cropland erosion and stream siltation.
2. Stream bank fencing to protect stream bank vegetation from livestock damage. A dense growth of trees, shrubs and grasses can then become established, controlling lateral bank erosion.

In order to insure cooperation with individual landowners, the fenced area should be leased by the Fish and Game Department for a minimum of ten years. Leased areas would serve to demonstrate stream bank erosion control practices as well as furnishing public use areas.

Approximately 50 percent of the total cost of ditch lining and stream bank fencing may be obtained through the Agriculture Conservation Program and engineering services through the Soil Conservation Service. The remaining cost of ditch lining and fencing would be furnished by the Fish and Game Department.

Reduced stream pollution by agricultural siltation can increase trout populations and provide good quality fishing in about eight miles Bluewater Creek. An incidental benefit to stream bank fencing would be additional habitat for upland game birds.