9-197
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

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Washington .....
Field .....

Description Prepared 8/25/52 and revised 2-26-63 (Date)
by E. E. Webber

Description of Gaging Station on Tiderishi Creek (High Water Indicator) near Jenera, Ohio

(Prepare description in accordance with outline on back of Form 9-277. Plot cross section to scale. Use Form 9-213A or 9-213E for cross section. Use second page of this form for sketch if room is available, otherwise use Form 9-213C or 9-213H. Initial and date all sheets.)

16—56616-2 GPO

Location.--Lat 40°55'50", long 83°43'40", in sec. 28, T. 1 S., R. 10 E., on left upstream wingwall of culvert on State Route 698, 2.2 miles north of Jenera, Hancock County.

Established.--January 1947, by H. H. Ellis.

Drainage area.--4.65 sq mi (revised).

Gage.--Two-inch galvanized pipe (stick rest at 9.99 ft), (top of pipe at 16.83 ft) is equipped with cap ~~type~~ bottom fitting and lead-weighted wooden stick, 6.84 ft long.

Channel and control.--Low-water control is riffle, downstream from culvert with zero flow at 8.2 ft. High water control is the high, clean stream banks downstream. Channel is fairly straight above and below and there are floating flood fences at both ends of culvert.

Highway structures.--Culvert at gage is concrete slab construction with 22 ft span and wingwalls at 45 degrees.

Discharge measurements.--Low-water measurements may be made in vicinity of gage. High-water measurements may be made at either end of culvert but effect of flood fences must be noted.

Floods.--Highest mark recorded on stick was 5.68 ft (15.15 ft gage datum) by flood of Feb. 10, 1959.

Reference marks.--R.M. No. 1 is chiseled square on top of left upstream end handrail post. Elevation 20.16 ft. (Destroyed)

R.M. No. 2 is black iron lag screw in roadward side of 36" tree, 150' south of indicator and at east side of road. Elevation is 17.24 ft.

R.M. No. 3 is chiseled square in northwest corner of north downstream wingwall. Elevation 15.45 ft.

R.M. No. 4 is top of 3/8" cinch anchor adjacent to C.S.G. pipe on left upstream bridge wingwall. Elevation 15.97 ft.

Cooperation.--Ohio Department of Highways.

VIGIL NETWORK SITE: TIDERISHI CREEK NEAR JENERA, OHIO, U.S.A.

Tiderishi Creek is an example of a small perennial basin in north-central U.S.A. The 1:24,000 scale topographic map (Arlington) illustrates the general surface configuration. Because of similar areas in other basins, this one was chosen for long-term observation as part of the Vigil Network.

This 4.65 sq mi area is located about 2 miles north of Jenera (see station description).

Basin characteristics:

Soil.-This drainage area is located on a typical till plain. The soils are Blount silt loam on the sloping better drained areas and Pewamo silty clay loam in the drainage ways and depressions.

The Blount silt loam is a moderately productive, light colored, imperfectly drained soil formed from highly calcareous clay loam till. Infiltration and permeability are slow.

The Pewamo silty clay loam is a dark colored, poorly drained productive soil that has developed from calcareous clay loam till. Surface drainage is slow to ponded; infiltration rate and permeability are moderately slow.

Vegetation.-About 10% wood lots, 20% permanent pasture and 70% rotation crops.

Underlying rocks.-Limestone and dolomite of silurian age, covered with 20 to 30 ft of glacial till.

Manmade changes to date:

Drains.-Pasture and crop areas drained by use of tile drains. Tiderishi Creek has been dredged, as have most of the small streams in the vicinity. There are some open ditches tributary to Tiderishi Creek.

Farm ponds or small detention reservoirs.-None.

Logging areas.-Area deforested over 100 years ago. Present logging operations consist of routine cutting in farm wood lots.

Conversion of pasture to woodland, etc.-There may be minor rotation between pasture and tilled lands, but most of the changes consist of rotation of crops on the tilled lands.

Estimate of probable changes in land use 20 years ahead:-It is probable that land use will remain about the same except for possible variation of crop rotation. There is little likelihood that suburban development will take place in the basin. Probable changes are improved drainage and other improved land-use practices.

The annual peak discharge in cfs and associated elevation and maximum depth of water are the hydrologic data that have been observed at this site. The file of original field data are as follows:

1. Station description.
2. Index card.
3. Black and white picture.
4. Topographic map (1:24,000).
5. Annual peak discharges.
6. Physical description of site.

Base data are on file at.-U.S. Geological Survey
975 West Third Avenue
Columbus, Ohio, 43212, USA