

IV BASIN DESCRIPTION

A. Location, Area and Drainage

The headwaters of the Pucketa Creek Drainage Basin originate in Westmoreland County at a point approximately four (4) miles east of Sardis, Pennsylvania. The waters flow in a northwesterly direction for ten (10) miles where it discharges into the Allegheny River near New Kensington, Pennsylvania. The Pucketa Creek Drainage Basin lies within the confines of Westmoreland County, with a small portion lying in Allegheny County. The entire basin is thirty-seven (37) square miles-in area.

The principal tributaries of Pucketa Creek (Main Stem) that enter directly into the main stream as it flows northwest are: Unnamed Run #1, Unnamed Run #2, and Little Pucketa Creek. Table I on the following page lists the information relating to each of the major tributaries: (1) total area, (2) main stream length, (3) total stream length including all tributaries and (4) total miles of stream length affected by mine drainage.

TABLE I
Area and Stream Length
Major Watersheds
Pucketa Creek Drainage Basin

	<u>Major Tributary</u>	<u>Total Area Square Miles</u>	<u>Main Stream Length (Miles)</u>	<u>Total Stream Length (Miles)</u>	<u>Miles of Stream Polluted By Mine Drainage</u>
1.	Pucketa Creek (Main Stem)	21.7	10.2	45.5	0
2.	Little Pucketa Creek	10.8	8.1	21.7	0
3.	Unnamed Run #1	2.5	2.9	5.9	1.9
4.	Unnamed Run #2	<u>2.2</u>	<u>3.0</u>	<u>5.2</u>	<u>0.5</u>
	Total	37.2	24.2	78.3	2.4

(See Analysis of Individual Watersheds for more specific information relating to each of the above watersheds.)

The basin is somewhat rectangular in shape with Pucketa Creek (Main Stem) flowing generally near the southern perimeter of the basin, and consequently, the bulk of the tributaries and the watershed area lies to the north of the main stream.

B. Stream Condition

Certain waters within the Pucketa Creek Drainage Basin are continuously degraded by mine drainage pollution. The polluted waters are shown as acid and iron streams on Plate L, Page 9. The acid streams are classified as severely acid (L78 mg/L or greater) and moderately acid (0 - L78 mg/L). The iron streams are classified as severely iron (7 mg/L or greater) and moderately iron (> L.5 - 7 mg/L).

The waters classified as severely acid and iron are: (1) an 0.8 mile sector of an Unnamed Tributary to Unnamed Run #1 ending approximately 1 mile from its confluence with Pucketa Creek, (2) a 0.4 mile of an Unnamed Tributary to

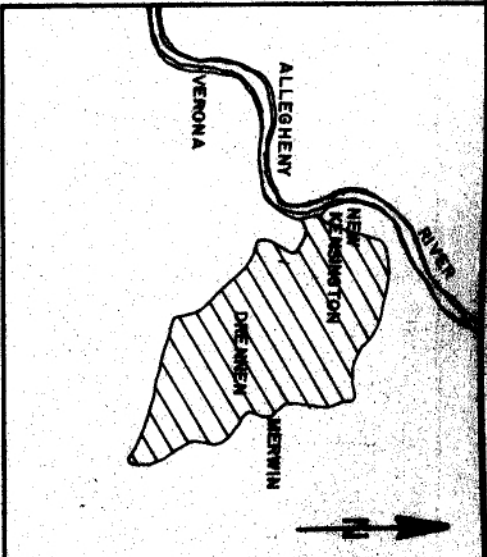
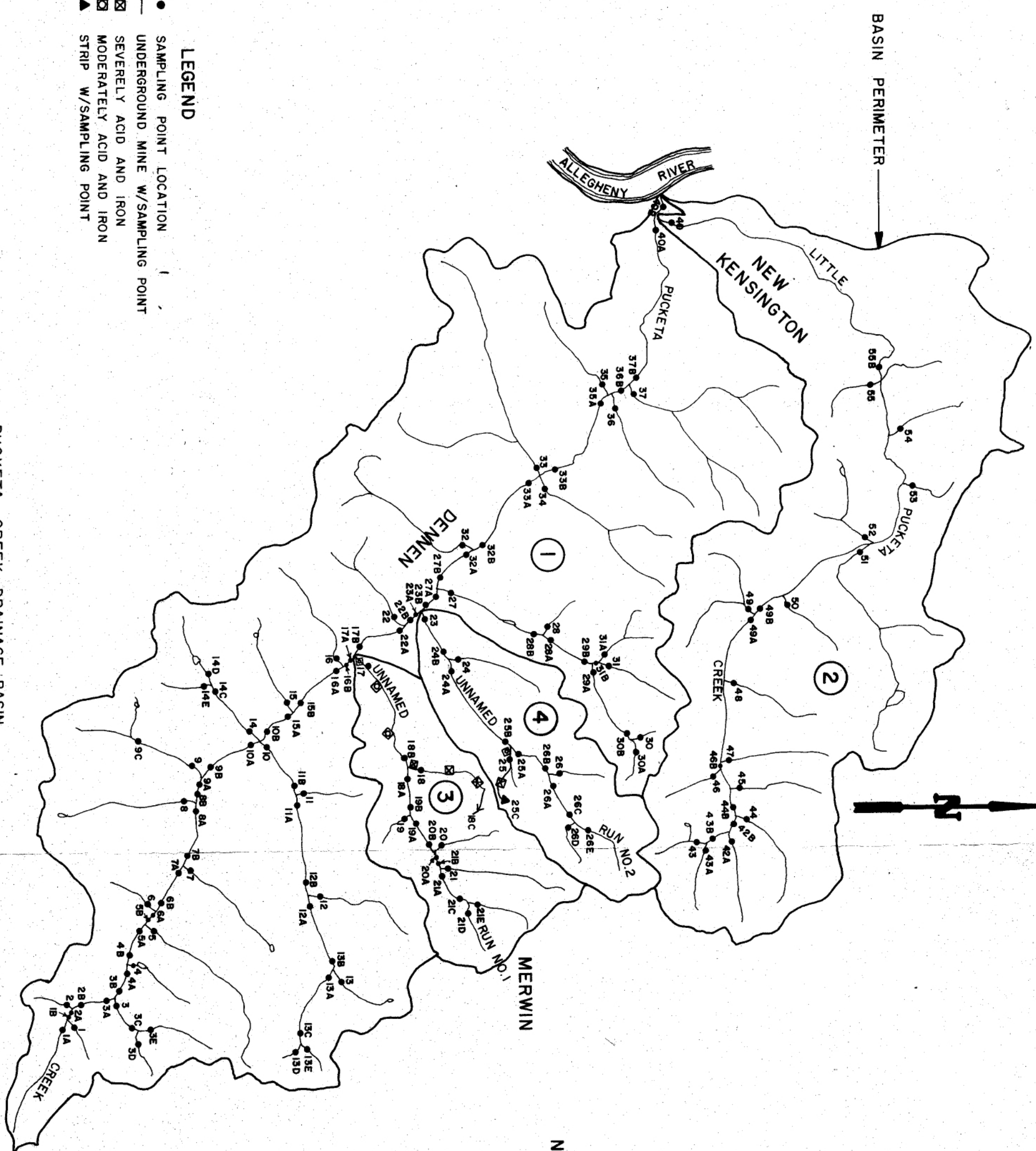
Unnamed Run #2 approximately 1.3 miles from its confluence with Pucketa Creek.

Water classified as moderately acid and iron are: (1) 1.1 miles section of Unnamed Run #1 ending with its confluence with Pucketa Creek, (2) a 0.1 mile sector of an Unnamed Tributary to Unnamed Run #2.

The bulk of mine drainage entering Pucketa Creek is concentrated in the central portion of the basin where most of the mining activity has been centered over the years.

Stream conditions of the major watersheds within the Pucketa Creek Drainage Basin are defined in detail in the Analysis of Individual Watersheds section of this report.

- LEGEND**
- SAMPLING POINT LOCATION
 - UNDERGROUND MINE W/SAMPLING POINT
 - ⊠ SEVERELY ACID AND IRON
 - ⊡ MODERATELY ACID AND IRON
 - ▲ STRIP W/SAMPLING POINT



NOTE: DRAINAGE BASIN BREAKDOWN

- ① PUCKETA CREEK WATERSHED (MAIN STEM)
- ② LITTLE PUCKETA CREEK WATERSHED
- ③ UNNAMED RUN NO. 1 WATERSHED
- ④ UNNAMED RUN NO. 2 WATERSHED

PUCKETA CREEK DRAINAGE BASIN
SCALE: 1" = 5000'

PLATE I
PUCKETA CREEK MINE
DRAINAGE INVENTORY
ALLEGHENY AND WESTMORELAND CO.

