

ABATEMENT MEASURES & CO

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ABATEMENT MEASURES AND COSTS

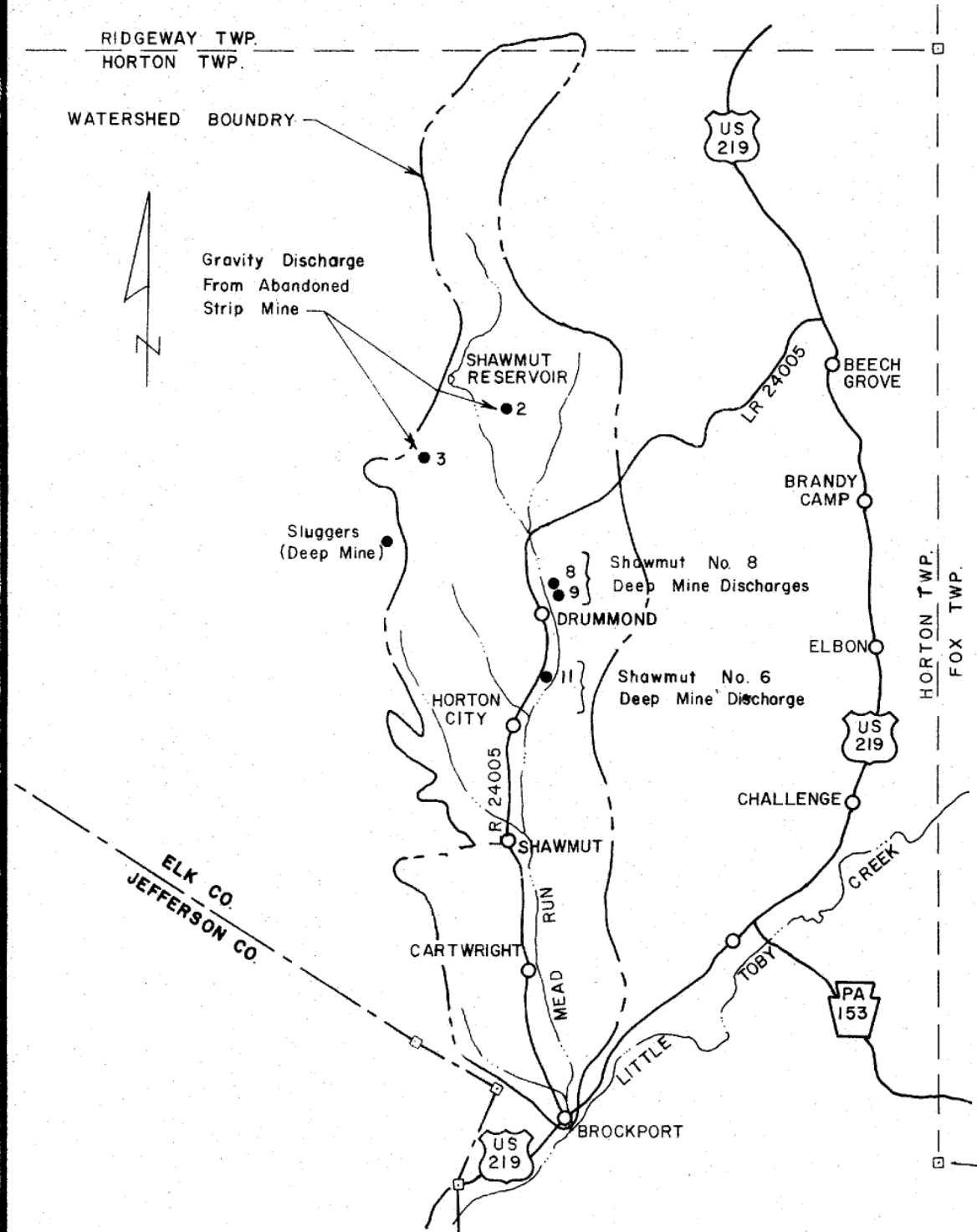
The ultimate pollution discharge points are indicated under "Source Description" in the following table. These are the points where attention should be devoted to abate pollution. Each known source is given, its pollution load, proposed method of abatement, and the estimated cost of abatement.

Cost estimates were computed on one judgmental criteria and that was experiences of the Department for similar types of projects and abatement measures.

Practically all of the pollution of the lower portion of Mead Run Watershed is the result of acid mine drainage. This drainage is primarily from abandoned deep mines while the upper portion of the Watershed appears to be polluted as a result of natural conditions with the exception of one "hot abandoned surface mine. In the recommendations, it will be noted that emphasis has. been put on an aeration facility and strip mine restoration. A description of these abatement measures is as follows:

1. Mine drainage treatment facility - the construction of a neutralization system to raise the pH and force the treated water over a series of baffles into settling ponds to precipitate any undesirable elements before discharging back into the watershed. One facility would be designed to handle the discharge from sources 8, 9, and 11 by either utilization of piping or by treating the entire flow below the lowest discharge. Economics will dictate which option is, most feasible to pursue.
2. Strip mine restoration - utilization of terrace backfilling and rechannelization of water through abandoned strip mines to assure rapid runoff. This method also incorporates soil treatment and planting of all affected acreage.

MEAD RUN
SOURCE LOCATIONS
SL 132-6



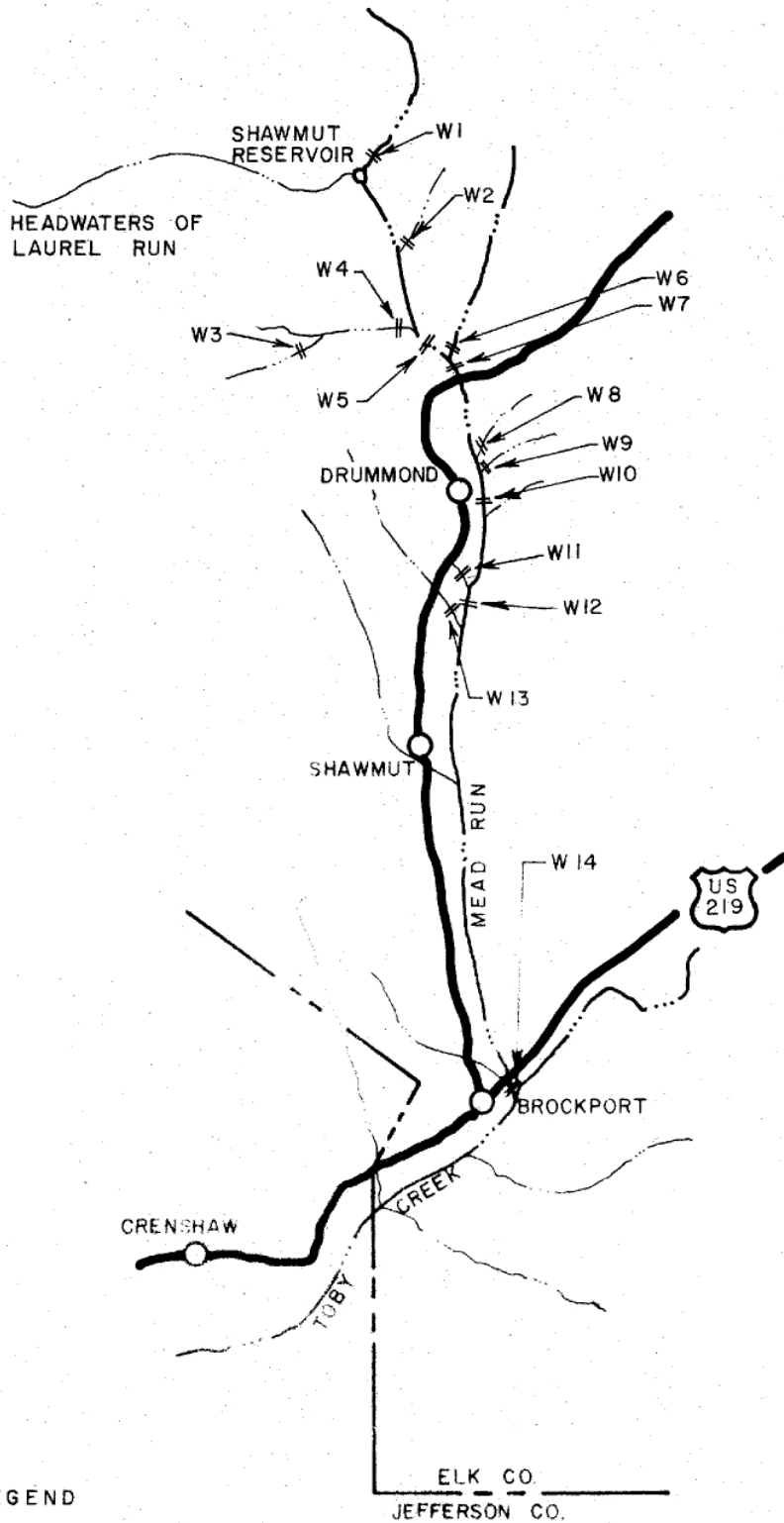
OCT 8, 1974
SCALE: 1" = 1 MILE

MEAD RUN WATERSHED

Source No.	Priority No.	Source Description	Recommended Abatement Measures	Cost
11	1	Gravity discharge of AMD from Shawmut No. 6 deep mine drift. Acid load = 9.31 lbs/day T. iron load = 13.73 lbs/day Mag. load = 61.52 lbs/day		
8	1	Gravity discharge of AMD from Shawmut No. 8 deep mine drift. Acid load = 1.44 lbs/day T. iron load = 17.36 lbs/day Mag. load = 61.02 lbs/day	Construction of mine drainage treatment facility to handle all 3 discharges.	\$125,000.00
9	1	Gravity discharge of AMD from Shawmut No. 8 deep mine drift. Acid load = 1.28 lbs/day T. iron load = 4.01 lbs/day Mag. load = 11.49 lbs/day		
2	2	Gravity discharge of AMD from abandoned strip mine. Acid load = 122.03 lbs/day T. iron load = 0.27 lbs/day		
3	3	Gravity discharge of AMD from abandoned strip mine. Acid load = 20.38 lbs/day T. iron load = 0.38 lbs/day	Strip mine restoration of 11.94 acres.	\$ 37,000.00
Sluggers	4	Slug discharges with pH readings about 5.6 from abandoned workings - no positive threat to Mead Run.	*Construction of 5 watertight mine seals within area of active mine drainage permit.	\$ 75,000.00

*Not absolutely required

WEIR LOCATIONS
MEAD RUN WATERSHED
ELK CO.



LEGEND

W = SAMPLING POINTS

AUG 16, 1974
SCALE: 1" = 1 MILE