

# INTRODUCTION

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### PURPOSE AND SCOPE

The firm of Skelly and Loy was given notice on June 6, 1972 to proceed with a contract for a pilot program for accelerated engineering to abate acid mine drainage. The specific objective of this pilot program was to reduce the amount of time required and subsequent monies expended by the Commonwealth to produce significant results from the abatement of acid mine drainage pollution.

This pilot program was to prove the desirability of compressing the engineering time required for acid mine drainage abatement by a twofold attack on two major watershed subbasins.

First, the feasibility study phase was overlapped by the plans and specification phase, producing a large time savings.

Second, planning and developmental research were accelerated by means of a new feasibility study approach. This new method provided for accelerating the studies through systematic elimination of developed watershed modules which would have a low benefit/cost ratio if the existing acid mine drainage were to be abated.

The original areas of study included the entire Moshannon Creek basin with a watershed area of 288 square miles, together with nine tributaries in the Clearfield Creek basin with a combined subwatershed area of

64 square miles. The Clearfield Creek studies excluded Muddy Run, which has already been studied, but were later expanded to include the other acid producing tributaries within the 396 square mile Clearfield Creek Watershed.

It was felt that most of the acid entering the two major streams in the study area was discharging from relatively few large discharge points, despite the extensive deep and strip mining observed. The modular type of study approach was effective in rapidly delineating those sources, and abatement feasibility could be determined without the usual one year study period.

The project was accomplished in six phases including:

(1) use existing data to establish reconnaissance program; (2) subdivide basins into modules, perform, reconnaissance; (3) classify modules, intensify study on reduced scope areas; (4) preliminary evaluation; (5) final feasibility determination; (6) complete final report.

Part of the assignment was to identify several Quick Start projects, within three and six month periods after the start of work, on which design could be started immediately. This part of the project was fulfilled by the presentation of two interim reports, dated August 28 and December 6, 1972, respectively. These reports presented four potential Quick Start projects, identified with this final report as Abatement Areas F, H, L and S.

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