## CLIMBING THE LEARNING CURVE IN MINE WATER AQUACULTURE : AN UPDATE FROM WARWICK MOUNTAIN FISHERIES<sup>1</sup>

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**Abstract:** Treating acid mine drainage is now a fact of life for coal mine operators. Each year, those companies collectively spend millions of dollars to treat water, releasing it into streams that are often not as clean as the water being placed in them. If ways can be found to derive some benefit from this water treatment, the financial burden of those operations would be reduced. In some cases where state environmental agencies have inherited water problems left by defunct mining companies, some positive cash flow from the treatment process might allow more drainage problems to be tackled.

The market for farm-raised fish and shellfish is real and growing. Aquaculture projects at coal mine water treatment plants are technically feasible and can be moneymakers. Two good examples of this feasibility are the trout propagation project at Mettiki Coal Corporation in western Maryland and the Warwick Mountain Fisheries project in southwestern Pennsylvania. This paper examines the latter and how it has set out to prove financial feasibility as well. The discussion will include challenges encountered, lessons learned, adaptations made to the original plan and financial impacts.

Duquesne Light Company believes that aquaculture at the Warwick Mine is not only an excellent demonstration of the effectiveness of its water treatment program but also an opportunity to offset some portion of its perpetual water treatment costs there. Further, we believe that it holds promise for others who face the same perpetual liability and hope that our experience will be helpful to the industry.

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