

4.8.1.4 Sediment Ponds

All runoff from disturbed areas at Trapper are routed through one or more sediment ponds. These ponds are designed to control the sediment load in the water discharged from the Trapper permit area.

All future sediment ponds to be built at Trapper Mine are designed using hydrologic modeling techniques to predict the peak settleable sediment load during the 10-year, 24-hour precipitation event. Detailed design plans will be submitted to the Division at least 60 days prior to construction of the structures. Existing ponds which were not designed using these techniques have been re-evaluated to ensure adequacy of each sediment control system. The results of all hydrologic models are presented in Appendix Q, Drainage and Sediment Control Plan.

Sediment load in surface water discharged from Trapper Mine is controlled by routing the water through a series of one or more sediment ponds. Sediment ponds have been or will be built in all major drainages at Trapper prior to topsoil removal for advancement of active pits. Sediment pond locations are shown on Map M51, Drainage and Sediment Control.

As previously mentioned, all ponds have been designed or confirmed for adequacy, using hydrology and sedimentology modeling. Trapper spent considerable time during the summer of 1986 in discussions with the Division in order to determine the applicable curve numbers and sedimentology parameters for design of drainage and sediment control systems. The agreed upon parameters are shown in Appendix Q, Drainage and Sediment Control Plan, Section XII, Curve Number Determinations, and Section XIII, Sedimentology Parameters.

The current drainage and sediment control plan calls for the use of up to 40 sediment ponds either singly or in series over the 5-year permit term (2023-2027). Design information for each pond is summarized in Table 4.8-6, Sediment Pond Summary Information. Details of all currently designed sediment ponds are included in Appendix Q, Drainage and Sediment Control Plan.