17.24.182 (INTERPRETIVE RULE) OPERATIONAL RECOMMENDATIONS FOR SMALL MINERS

(1) In order for SMES placer and dredge operators to meet the requirements of 82-4-305 (1) , MCA, which requires that the small miner agree in writing not to pollute or contaminate any stream, the department recommends the following best management practices as minimally necessary to assure that operations do not result in water quality violations:

(a) Mining equipment should not be operated in a live stream or diversion, or in any manner to cause bank caving or erosion of the bank of any live stream or diversion.

(b) The amount of make-up water should be limited to only the amount required to operate the wash plant with spent water being recirculated back to the wash plant.

(c) Runoff from undisturbed areas should be minimized through use of temporary berms.

(d) Adequate temporary berms and/or natural undisturbed areas of vegetation should be placed or left as a buffer zone around diversion ditches and live streams to prevent water quality degradation and erosion of disturbed areas as a result of runoff from a ten-year, 24-hour precipitation event.

(e) During operations, care should be taken to protect streambanks and streambank vegetation, streambanks, ditches, and diversions should be lined, riprapped, or otherwise stabilized to prevent excess erosion.

(f) Roads should:

(i) be constructed to provide controlled drainage, include culverts, waterbars, and slash filters necessary to facilitate drainage and minimize erosion and be constructed to reduce concentrated flows;

(ii) be located on well-drained soils and located back from stream bottoms in order to provide a buffer zone for preventing road sediments from washing into stream channels;

(iii) be located outside slide-prone areas characterized by seeps, steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope;

(iv) be constructed to stabilize sloped exposed surfaces by seeding, compacting, riprapping, benching, mulching or other suitable means prior to fall or spring runoff;

(v) not be left in an erosive condition over a winter season; and

(vi) be used only minimally during wet periods and spring breakup when damage to the roads, which would result in increased sedimentation, is likely to occur.

(g) Cut-and-fill slopes should be constructed at a stable angle and stabilized by seeding, mulching, benching or other suitable means during the same season as construction.

(h) Clearing, grubbing or logging debris should not be placed in streams or used for diversions or cause water quality degradation.

(i) Diversions and impoundments should be sized to pass the ten-year, 24-hour precipitation event. Diversions should be constructed with drop structures or energy dissipators whenever necessary to prevent erosion. Diversion ditch berms should be sloped to account for site-specific conditions, including soils, climate, height of structure and existing natural slopes, and should be revegetated, riprapped, or otherwise stabilized to minimize stream sedimentation.

(j) Before winter shutdown, a small miner should take the following precautions:

(i) Diversions should be sized to pass spring runoff (minimum ten-year, 24-hour event) or streams should be returned to original channels.

(ii) Ponds should have adequate freeboard to prevent over-topping during spring runoff from direct precipitation and over-land flow. Whenever ponds are located within a flood plain and diversions are not sized to pass the ten-year, 24-hour precipitation event, ponds should be filled and reclaimed prior to onset of winter.

(iii) Soil, overburden, and tailings stockpiles should not be placed near streams, unless necessary, and, or if so placed, should be bermed at the toe to prevent erosion of sediments into streams.

(iv) Fuel storage tanks should be drained before winter shut down and should be drained and disposed of in a manner which protects adjacent streams.

(k) Dikes should be constructed around fuel storage areas to prevent a spill or discharge of fuel to any waters.

(2) A placer or dredge operator who proposes a "project", as that term is defined in 75-7-103 , MCA, on a perennial stream, must comply with the requirements of the Natural Streambed and Land Preservation Act, as amended, by obtaining a permit required by the appropriate conservation district.

(3) In order for a SMES placer or dredge operator to meet the reclamation requirements for bond release, the following reclamation planning guidelines should be followed:

(a) A reclamation plan, or appropriate waiver, for all roads is necessary.

(b) The postmine land use should be identified and a reclamation timetable should be established.

(c) Soil should be salvaged from all areas to be disturbed and should be stockpiled for use in reclamation.

(d) Site disturbances should be recontoured to a minimum of 3:1 slopes or flatter by backfilling excavated material, unless otherwise approved by the department as achieving comparable stability and utility in the postmining landscape.

(e) Soil and approved soil amendments should be redistributed over all areas disturbed by mining.

(f) The site should be seeded with perennial nonweedy species.

(g) Stream channels should be reconstructed, using coarse placer tails as necessary to dissipate energy. Riprap, temporary synthetic erosion control, or biodegradable revegetation fabrics in combination with permanent vegetation should be used to stabilize streambanks, as necessary. Streams should be reconstructed with grades, pools, and meanders comparable to premine drainage.

(h) Clays and fines available on-site should be used to create a relatively impermeable layer beneath reclaimed channels and floodplains.

(i) The floodplain should be returned to original contour with the gravel, overburden, and soils replaced to resemble their original stratigraphy.

Authorizing statute(s): This rule is advisory only, but may be a correct interpretation of the law, 82-4-321, MCA

Implementing statute(s): 82-4-305(1), (3), (4), and (5), MCA

History: NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852.