

approximately 60 percent of the three-year sediment storage level. The sediment level in ponds will be visually approximated during the quarterly pond inspections, as water level conditions permit with support from a staff gage placed at the base of the pond on the inlet side. Gradations will be marked on the staff gage and the maximum storage level will be marked on the riser pipe, to allow sightings during dry conditions. Cleaning will be done during dry periods of year, typically between fall and mid-winter or in early summer when the pond sediments have had an opportunity to dry out. Cleanings from all ponds and other sediment controls is stacked on the flat area above Fill 8 that is near the road to Pond 5. This area being relatively flat give the material the best opportunity to dry out. This storage area will be graded and seeded, once no more sediment cleaning is anticipated and vegetation on the mine site has begun to look successful. Vegetation success is expected in the area due to the material being composed of topsoil and the area being flat.

The ponds are designed to prevent diminution to downstream water users. Each structures has been designed under the supervision of a professional engineer. Ponds are shown on **Map 2.05.3-2** and design documentation is presented in **Exhibit 15**.

All impoundments are designed to have embankments approximately 10 ft high and storage capacity less than 20 acre feet. In those locations where the topography is too steep, storage capacity is achieved by excavation. Excavated impoundments are incised no deeper than 5 ft below the bottom of the embankment, and the volume in the lower 5 ft is used for sediment storage and dead pool. **Exhibit 15-14** illustrates typical design parameters for both totally impounded and excavated ponds. By using excavated impoundments, LCC anticipates that MSHA and State Engineer's approvals will not be required. Excavated material will be used for embankment construction and placed in the mine backfill or in the excess spoil fill areas. Topsoil will be stockpiled near the pond sites within the pond runoff area.

Small area exemption (SAE) designs are included in **Exhibit 15**. These provide documentation that the effluent draining from small disturbances at auxiliary facilities or adjacent to topsoil piles outside the major disturbance areas will meet effluent limitations following the use of one or several sediment control measures. These include but are not restricted to the use of rock, mulch, straw bale dikes, silt fencing, rock check dams, and vegetative filters.

A small (approximately one acre) service area has been constructed to the north of the Jeff Canyon Haul Road, as shown on **Figure 2.05.3-14b**. This area is used for placement of portable fuel tanks, ANFO prill bins, a cap house, and miscellaneous equipment. The site was leveled and graded to drain to a bermed drainage collection area on the south east side, where storm water is treated with a silt fence or gravel drain before discharge. SEDCAD calculations (**Exhibit 15**) estimate the runoff from a 10-year, 24-hour, storm event will be approximately 0.2 acre-ft, which can be effectively treated with a 100-ft silt fence.

The mine office SAE is located in an area previously disturbed by ranching and oil and gas operations. Effluent limits will be met by applying gravel to traffic areas and constructing a containment berm along the north edge of the site. This berm will include a gravel drain structure at its lowest elevation.