LONG TERM CLOSURE COSTS

Regulatory Authority:
43 CFR 3809.552(c) – When BLM identifies a need for it, you must establish a trust fund or other funding mechanism to ensure the continuation of long-term treatment to achieve water quality standards and for other long-term post-mining maintenance requirements.

Time-Frame:
Perpetuity unless can demonstrate otherwise

Funding Mechanisms:
Long-Term Trust Funds (LTTF)

- 500 year period simulates perpetuity since Present Value (PV) approaches $0
- Smaller initial investment opposed to including in Reclamation Cost Estimate

Reclamation Cost Estimate (RCE)

- 500 year period simulates perpetuity
- Larger initial investment than LTTF since funds are all bonded up-front
- Example: $44M in RCE vs. $3M in LTTF @ 1.525% net growth rate (discount rate)

Examples of When Required:
Heap Leach Pad or Tailings Facility

- Evaporation Pond (E- Cell) – Inspection, Repair and Replacement
    - Sludge and substrate disposal, HDPE liners, distribution piping, backfill
    - 100 year replacement frequency
        - More often if TDS calculations justify
- Water Treatment – if Long-Term Draindown rates exceed E- Cell capacity (or not appropriate)
- Wildlife Fencing – Inspection, Repair and Replacement
    - 20 year replacement frequency
- Monitoring – Sampling, Testing, and Reporting

Acid Rock Drainage (ARD)

- Water treatment
- Monitoring - Sampling, Testing, and Reporting

Groundwater Contamination

- Pump-back well operating and maintenance
- Monitoring - Sampling, Testing, and Reporting

Miscellaneous Access/Site Work related to above

- Access road maintenance
- Erosion control
- Other – as identified through time

Options/Future Direction:
Source control – 43 CFR 3809.420(b)(11)(iii) – Long-term, or post mining, effluent capture and treatment are not acceptable substitutes for source and mitigation control, and you may rely on them only after all reasonable source and mitigation control methods have been employed.