COMPARISON OF ALTERNATIVES

The following comparisons of the nine Alternatives represent the major similarities and differences between each of the Alternatives.

Protection of the Hydrologic Balance Functional Group

Baseline Data Collection and Analysis

Biological Conditions

- The No Action Alternative (also Alternative 9) -- No requirement for baseline biological assessment;
- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Baseline biological conditions assessment required; and
- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

Hydrologic Conditions

Water Quality

- The No Action Alternative (also Alternative 9) -- Limited water-quality sampling points and analytical constituents. At a minimum, the analytical suite for surface water and groundwater consists of the following: temperature, total suspended solids (only surface water), pH, specific conductance, total dissolved solids (TDS), total iron, and total manganese;
- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Baseline water-quality data are required on all intermittent and perennial streams and a representative number of ephemeral streams. Twelve evenly spaced samples are required from a consecutive 12-month period. The analytical suite for surface water and groundwater consists of the following: temperature, total suspended solids (only surface water), aluminum, bicarbonate, sulfate, chloride, calcium, magnesium, sodium, potassium, (hot) acidity, alkalinity, pH, selenium, specific conductance, TDS, total iron, arsenic, zinc, copper, cadmium, ammonia, nitrogen, and total manganese; and
- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.
**Surface Water Flow and Groundwater Levels**

- The No Action Alternative (also Alternatives 3, 5, 8 (Preferred) and 9) -- Discrete stream flow and groundwater levels measurements required. Twelve evenly spaced samples required over a consecutive 12-month period;

- Alternative 2 (also 4 and 6) -- Continuous stream flow and groundwater levels measurements required; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Rainfall Measurements**

- The No Action Alternative (also Alternative 9) -- No onsite rainfall measurements required;

- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Continuous on-site rainfall measurement requirements; and

- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Stream Hydrologic Form and Ecological Function**

- The No Action Alternative (also Alternative 9) -- No documentation required of stream hydrologic form and ecological function;

- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Documentation of stream hydrologic form and ecological function required; and

- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Monitoring During Mining and Reclamation**

**Biological Monitoring**

- The No Action Alternative (also Alternative 9) -- No requirements for monitoring of biological condition;

- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Annual monitoring of biological condition required; and

- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.
Water-Quality Monitoring

- The No Action Alternative (also Alternative 9) -- Monitoring for limited suite of analytes [temperature, total suspended solids (only surface water), pH, specific conductance, TDS, total iron, and total manganese] and the RA can release operator from monitoring before bond release;

- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Quarterly monitoring until final bond release (assuming no adverse trends in data which would lead to material damage to the hydrologic balance requirement) consisting of the same suite of analytes sampled for during baseline data collection; and

- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

Rainfall Measurements

- The No Action Alternative (also Alternative 9) -- No requirement for on-site rainfall measurements;

- Alternative 2 (also 3, 4, 5, 6, and 8 (Preferred)) -- Continuous on-site rainfall measurements required; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

Runoff Control Structures

- The No Action Alternative (also Alternative 9) -- Certification of drainage control structures not required;

- Alternative 2 (also 6) -- Inspect and certify surface runoff control structures by a professional engineer after every one-year return interval precipitation event;

- Alternative 3 (also 4, 5 and 8 (Preferred)) -- Inspect and certify surface runoff control structures by a professional engineer after every two-year return interval precipitation event; and

- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

RA Hydrologic Data Review

- The No Action Alternative (also Alternative 9) -- No regularly scheduled hydrologic review required;
• Alternative 2 (also 3, 4, 5, and 6) -- RA review of monitoring data at permit mid-term review and permit renewal;

• Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative; and

• Alternative 8 (Preferred) – RA review of monitoring data at permit renewal or significant revision.

**Definition of Material Damage to the Hydrologic Balance**

• The No Action Alternative (also Alternatives 5, 6, 7 and 9) -- No national definition for material damage to the hydrologic balance. RA discretion to determine material damage to the hydrologic balance criteria on case-by-case basis; and

• Alternative 2 (also 3, 4 and 8 (Preferred)) -- Material damage to the hydrologic balance defined as any quantifiable adverse impact on the quality or quantity of surface water or groundwater or on the biological condition of intermittent and perennial streams that would preclude attainment or continuance of any designated surface-water use under sections 101(a) and 303(c) of the Clean Water Act or any existing or reasonably foreseeable use of surface water or groundwater outside the permit area. Includes areas overlying the underground workings of underground mines.

**Corrective Action Thresholds**

• The No Action Alternative (also Alternatives 5, 6, 8 (Preferred) and 9) -- No corrective action thresholds;

• Alternative 2 (also 3 and 4) -- RA to develop correction action thresholds that are less than the material damage to the hydrologic balance standards; and

• Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Activities In or Near Streams Functional Group**

**Stream Definitions**

• The No Action Alternative (also Alternatives 3, 5, 6 and 9) -- No change in ephemeral, intermittent, and perennial stream definitions;

• Alternative 2 -- The definitions of intermittent, ephemeral, and perennial would be functionally replaced; all waterways defined as Waters of the U.S. under the CWA would be protected under this alternative;
• Alternative 4 -- Streams defined based on flow and physical characteristics;

• Alternative 7 -- Existing definitions are not changed except that watershed size is not used as criteria to define intermittent streams; requires coordination with CWA authority; and

• Alternative 8 (Preferred) -- Stream definitions would match the U.S. Army Corps of Engineers definitions.

**Activities in or near Streams, including Excess Spoil and Coal Refuse**

• The No Action Alternative -- Prohibits mining activities through or within 100 feet of intermittent or perennial streams unless it can be demonstrated that the activity would not cause or contribute to the violation of applicable state or federal water quality standards and would not adversely affect the water quantity and quality or other environmental resources of the stream;

• Alternative 2 -- Prohibits surface mining activities in or within 100 feet of perennial streams. Prohibit surface mining activities in or within 100 feet of intermittent streams unless the applicant demonstrates that the activity would not: (1) preclude premining stream uses; (2) have more than a minimal adverse impact on the premining biological condition of the stream segment; or (3) cause material damage to the hydrologic balance outside the permit area. Requires a 100 foot forested riparian corridor for previously forested areas (or other native species for non-forested areas) adjacent to ephemeral or intermittent streams;

• Alternative 2 also prohibits placement of excess spoil within 100 feet of an intermittent stream (excess spoil placement is allowed in or near ephemeral streams). Under Alternative 2 disposal of coal mine waste in or within 100 feet of an intermittent or ephemeral stream is allowed;

• Alternative 3 (also 4 and 5) -- Prohibits surface mining activities in or within 100 feet of intermittent and perennial streams unless the applicant demonstrates that the activity would not: (1) preclude premining stream uses; (2) have more than a minimal adverse impact on the premining biological condition of the stream segment; or (3) cause material damage to the hydrologic balance outside the permit area;

• Alternative 6 (also 8 (Preferred)) --Prohibits mining activities within 100 feet of intermittent or perennial streams unless it can be demonstrated that: (1) the ecological function of the stream would be protected or restored; (2) placement of excess spoil fill or coal mine waste would not result in a discharge of “toxic mine drainage” and long-term adverse impacts to the environmental resources of the stream (within the footprint of the fill) would be offset in the same or adjacent watershed through fish and wildlife enhancement commensurate with the potential direct adverse impact to the stream; (3) other proposed mining activities within the stream buffer, but not within the stream itself would not adversely affect the water quantity and quality or other environmental
resources of the stream; (4) a 100-foot riparian corridor would be required along the entire reach (including ephemeral streams) of any restored stream;

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative; and

- Alternative 9 -- Prohibits mining activities (other than construction of stream-channel diversions) within a perennial or intermittent stream unless the regulatory authority finds that avoiding disturbance of the stream is not reasonably possible.

Additionally,

- The No Action Alternative – Excess spoil minimization not expressly required by regulation;

- Alternative 2 (also 3, 4, 5, 6, 8 (Preferred) and 9) -- The applicant must demonstrate that (1) the operation has been designed to minimize, to the extent possible, the volume of excess spoil that the operation would generate and (2) the designed maximum cumulative volume of all proposed excess spoil fills would be no larger than the capacity needed to accommodate the anticipated cumulative volume of excess spoil that the operation would generate; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

And also,

- The No Action Alternative (also 9) -- Durable rock fills may be constructed by end-dumping. Placement in streams is not expressly prohibited if all other applicable requirements are met;

- Alternative 2 (also 3, 4, 5, 6 and 8 (Preferred)) -- The practice of “end-dumping” or creating a “durable rock fill” of fill material into streams is prohibited wherever a specific Alternative is applicable. In addition, daily monitoring and maintenance of daily log is required during fill construction; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

### Mining Through Streams

- The No Action Alternative -- Allows diversion of intermittent and perennial streams upon RA finding that the diversion would not adversely affect the water quantity and quality and related environmental resources of the stream;

- Alternative 2 (also 4) -- No mining activities allowed in or within 100 feet of a perennial stream. Mining allowed through all intermittent streams upon demonstration by the applicant that the reclamation plan would achieve complete restoration of the hydrologic
form and ecological function of all perennial and intermittent streams in accordance with standards established by CWA permitting authority and baseline conditions; additional performance bond required for stream restoration. All ephemeral streams must be restored in form;

- **Alternative 3 (also 5, and 6)** -- Mining allowed through all streams upon demonstration by the applicant that the reclamation plan would achieve complete restoration of the hydrologic form and ecological function of all perennial and intermittent streams in accordance with standards established by CWA permitting authority and baseline conditions; additional performance bond required for stream restoration. Ephemeral streams restored in form to the extent required by geomorphic reclamation;

- **Alternative 7** -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative;

- **Alternative 8 (Preferred)** -- Requires restoration of both the hydrologic form and ecological function of intermittent and perennial streams. Also requires restoration of the hydrologic form of ephemeral streams but not using geomorphic reclamation; and

- **Alternative 9** -- Requires that restored stream channels for perennial and intermittent streams be designed and constructed using natural channel design techniques to restore or approximate the premining characteristics of the original stream channel.

### AOC and AOC Variances Functional Group

**AOC Variances**

**Mountaintop Removal Mining Operations**

- The No Action Alternative (also 6, 7 and 9) – Achieve or support beneficial postmining land use; demonstrate equal or better land use. Assure investment in public facilities, and documentation of private financial capability to ensure completion. Requires demonstration that natural watercourses below lowest coal seam to be mined would not be damaged;

- **Alternative 2** -- Prohibits all mountaintop removal mining operations (could require SMCRA amendment); and

- **Alternative 3** (also 4, 5 and 8 (Preferred)) – Achieve or support beneficial postmining land use; demonstrate equal or better use. Requires implementation of the approved postmining land use prior to final bond release. Sufficient bond must be posted to ensure that, if the proposed postmining land use is not implemented, lands subject to the variance could be returned to approximate original contour. Requires assurance of investment in public facilities, and documentation of private financial capability to ensure completion. Requires demonstration that (1) no increase would occur in parameters of concern in discharges to surface or groundwater; (2) no change would occur in size or
frequency of peak flow as compared to what would occur if the operator returned the site to approximate original contour; and (3) the total volume of flow during any season of the year would not vary (flooding potential cannot be altered). Requires demonstration that natural watercourses within the proposed permit and adjacent areas would not be damaged. If site was forested before permit application, then must return to forest and revegetate using native species except where inconsistent with the postmining land use.

**AOC Variances for Steep-Slope Operations**

- The No Action Alternative (also Alternatives 6, 7 and 9) -- Achieve/support beneficial postmining land use; demonstrate equal or better land use. Demonstrate that surface water flow in the watershed would be improved over premining conditions or conditions what would have existed had the area been returned to AOC. Total suspended solids or pollutants to surface and ground water must be reduced in a manner that improves existing uses or ecology, or that reduces flood hazards due to reduced peak flow. Total flow volume in every season must not vary so as to adversely affect ecology of surface water or existing or planned use of surface or ground water;

- Alternative 2 -- Prohibits all variances from requirement to return the mined area to its AOC (could require SMCRA amendment); and

- Alternative 3 (also 4, 5 and 8 (Preferred)) -- Must demonstrate that surface water flow in the watershed would be improved over premining conditions and conditions that would have existed had the areas been returned to AOC. Must demonstrate that the AOC variance would result in fewer impacts to aquatic ecology for the cumulative impact area than would occur if the site were returned to AOC. The AOC variance cannot result in any placement of excess spoil in an intermittent or perennial stream. The applicant must demonstrate that the proposed deviations from AOC are necessary and appropriate to achieve the postmining land use. The operator must post additional bond sufficient to ensure that, if the proposed postmining land use is not implemented, lands subject to the variance would be returned to AOC. If site was forested before permit application, then must return to forest and revegetate using native species except where inconsistent with the postmining land use.

**Surface Configuration and Fills**

**Definition of AOC**

- The No Action Alternative (also Alternatives 6, 8 (Preferred) and 9) -- Definition of AOC would not change, includes backfilling and restoring disturbed areas to closely resemble premining topography;

- Alternative 2 (also 3, 4, and 5) -- Definition of AOC same as the No Action Alternative with the additional requirement that surface configuration achieved by backfilling and grading of the mined area be documented by landform measurements and analyses conducted before, during, and after mining and reclamation; and
Stream Protection Rule Alternatives Handout

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Digital Terrain Analysis**

- The No Action Alternative (also Alternatives 6, 8 (Preferred) and 9) -- Digital terrain analysis not required, requires mine plans to address postmining land use but introduces no new specific requirements;

- Alternative 2 (also 3, 4, and 5) -- Requires use of digital terrain models during premining and backfilling to confirm premining topography, and adherence to the reclamation plan for backfilling except that remining sites and contiguous permits 40 acres or less are exempt; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Permanent Impoundments and Final Elevations**

- The No Action Alternative (also Alternative 3, 6, 8 (Preferred) and 9) -- No limits placed on final elevations. Still allows permanent impoundments, including final-cut impoundments provided they do not conflict with achieving AOC and they meet the postmining land use requirements. No requirements to use landforming principles during reclamation. Backfilling requirements are not applicable to thin overburden;

- Alternative 2 (also 4) -- Allowable deviation in the elevation of the backfilled and graded area postmining in comparison to the premining elevation based on the lowest coal seam mined. The allowable deviation in the postmining elevation could be no more than ±20 percent of the difference between the premining surface elevation and the premining bottom elevation of that lowest coal seam, with allowances for slope stability and minor shifts in the location of premining features. Allows exceedance of 20 percent tolerance to minimize excess spoil generation. In addition, tolerance requirement does not apply to that portion of the permit where steep-slope contour mining is conducted. Requires use of landforming principles (geomorphic reclamation). Still allows permanent impoundments, including final-cut impoundments provided they do not conflict with achieving AOC and they meet the postmining land use requirements;

- Alternative 5 – Same as the No Action Alternative except that it requires return of as much as spoil material to the mined area as possible (including transport of spoil above the original contour), and that it prohibits flat decks on excess spoil fills and coal refuse facilities; and

- Alternative 7 – Same as Alternative 2 when enhanced permitting requirements (other than steep slope conditions) apply, otherwise same as the No Action Alternative. This Alternative does not require compliance with the ±20 percent tolerance because stability
and equipment constraints make it impracticable to impose this requirement on contour mining on steep slopes (defined as slopes greater than 20 degrees).

Revegetation, Topsoil, and Fish and Wildlife Functional Group

Revegetation

- The No Action Alternative (also Alternatives 6 and 9) -- Vegetative cover in accordance with the approved permit and reclamation plan, comprised of species native to the area, or of introduced species where desirable and necessary to achieve the approved postmining land use;

- Alternative 2 (also 3, 4, 5 and 8 (Preferred)) -- Requires that all reclaimed lands be revegetated with native species unless the postmining land use is actually implemented before the end of the revegetation responsibility period; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

Topsoil management

- The No Action Alternative (also Alternatives 6 and 9) -- Requires salvage and redistribution of all topsoil (A and E soil horizons) or the top 6 inches of soil material if less than that thickness of topsoil is present. Salvage and redistribution of the B and C soil horizons is at the discretion of the regulatory authority (except on prime farmland, where it is mandatory). Selected overburden materials may be substituted for, or used as a supplement to topsoil if the operator demonstrates to the regulatory authority that: (1) the resulting soil medium is equal to, or more suitable for sustaining vegetation than, the existing topsoil; and (2) the resulting soil medium is the best available in the permit area to support revegetation;

- Alternatives 2 (also 3, 4, 5 and 8 (Preferred)) -- Requires salvage and redistribution of all topsoil (A and E soil horizons). Also requires salvage and redistribution of the B and C soil horizons (or other suitable overburden materials) to the extent necessary to achieve a growing medium with the optimal rooting depths required to restore premining land use capability or comply with revegetation requirements. Allows use of selected overburden materials as substitutes for (or supplements to) either topsoil or subsoil or both if the operator demonstrates that either (1) the quality of the existing topsoil and subsoil is inferior to that of other overburden materials or (2) the quantity of the existing topsoil and subsoil is insufficient to provide the optimal rooting depth or meet other plant growth requirements. In the latter case, all existing topsoil and favorable subsoil must be salvaged and redistributed. The operator also must demonstrate that the resulting soil medium would be as or more suitable than the existing topsoil and subsoil to sustain vegetation and that the selected overburden materials are the best available within the permit area for that purpose. The operator would have to redistribute soils in a manner
that limits compaction, and provides optimal rooting depth to support the approved plan for revegetation and reforestation; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

**Salvage and Redistribution of Organic Materials**

- The No Action Alternative (also Alternatives 6 and 9) -- Does not require salvage and redistribution or reuse of organic materials (duff, other organic litter, and vegetative materials such as tree tops, small logs and root balls) above the A soil horizon;

- Alternative 2 (also 4) -- Requires salvage and redistribution or reuse of all vegetative organic materials above the A soil horizon to promote reestablishment of locally adapted and genetically diverse native vegetation and soil flora and fauna and to enhance fish and wildlife habitats. Prohibits burning or burying of vegetation or other organic materials;

- Alternatives 3 (also 5) -- Requires salvage and redistribution of materials from native vegetation only (not from all vegetation) above the A soil horizon in accordance with an approved plan developed by a qualified ecologist or similar expert who would determine the amounts needed to promote reestablishment of native vegetation and soil flora and fauna. Prohibits burning of above ground debris from native vegetation. Organic materials not needed for the approved plan may be used to construct fish and wildlife enhancement features;

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative; and

- Alternative 8 (Preferred) – Same as Alternative 3 except that it also prohibits burial of above ground native vegetation in addition to burning. Organic materials not needed for the approved plan may be used to construct fish and wildlife enhancement features.

**Reforestation**

- The No Action Alternative (also Alternatives 6 and 9) -- Lands that have returned to forest through natural succession classified as “undeveloped” are not required to be reforested;

- Alternative 2 (also 3, 4, 5 and 8 (Preferred)) -- Requires reforestation of previously forested areas and of lands that would revert to forest under conditions of natural succession (a prime farmland exception exists) in a manner that would enhance recovery of the native forest ecosystem as expeditiously as possible; and

- Alternative 7 -- Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.
Fish and Wildlife Protection and Enhancement

Enhancement of Fish and Wildlife

- The No Action Alternative (also Alternative 9) -- Achieve enhancement of fish and wildlife resources where practicable. Surface mining activities must enhance where practicable, or restore, habitats of unusually high value for fish and wildlife;

- Alternative 2--Enhancement required if mitigation required pursuant to the CWA. CWA mitigation incorporated as a condition of the SMCRA permit. Bond release on the SMCRA permit would be conditioned on successful mitigation as determined by the regulatory authority and the agency implementing the CWA. This option may require an amendment of SMCRA;

- Alternative 3 (also 4, 5, and 6) -- Enhancement measures would be mandatory whenever the proposed operation would result in the long-term loss of native forest, loss of other native plant communities, or filling of a segment of a perennial or intermittent stream (but not ephemeral streams). Resource enhancement must be: (1) commensurate with long-term adverse impact to affected resources; and (2) be located in the same or nearest adjacent watershed as the proposed operation if there are no opportunities for enhancement within the same watershed, and be on permitted area. Mining of certain areas where high value habitats are present may be prohibited by RA;

- Alternative 8 (Preferred) -- Enhancement measures would be mandatory whenever the proposed operation would result in the filling of a segment of a perennial or intermittent stream (but not ephemeral streams). Resource enhancement must be: (1) commensurate with the long-term adverse impacts to the stream; and (2) be located in the same or nearest adjacent watershed as the proposed operation if there are no opportunities for enhancement within the same watershed, and be on permitted area; and

- Alternative 7 – Same as Alternative 3 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.

Endangered and Threatened Species Protection

- The No Action Alternative (also Alternatives 6 and 9) -- No surface mining activity can be conducted which is likely to jeopardize the continued existence of endangered or threatened species listed by the Secretary or which is likely to result in the destruction or adverse modification of designated critical habitat of such species in violation of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.);

- Alternative 2 (also 3, 4, 5 and 8 (Preferred)) -- Same as Alternatives 1 and 6, in addition would (1) codify the dispute resolution provisions of the biological opinion concerning protection of threatened and endangered species and (2) add a provision to the regulations expressly requiring that the fish and wildlife protection and enhancement plan in the permit application include any species-specific protection and enhancement plans developed in accordance with the Endangered Species Act and any biological opinions implementing that law; and
• Alternative 7 – Same as Alternative 2 where enhanced permitting conditions apply, otherwise same as the No Action Alternative.

**Riparian Corridors**

• The No Action Alternative (also Alternative 9) -- The operator must avoid disturbances to, enhance where practicable, restore, or replace, wetlands, and riparian vegetation along rivers and streams and bordering ponds and lakes;

• Alternative 2 (also 5, 6 and 8 (Preferred)) -- Requires creation of a 100-foot riparian corridor, comprised of native non-invasive species, to enhance restoration of the ecological function of ephemeral, intermittent, or perennial streams. The riparian corridor must be established along the entire reach of any stream restored or permanently diverted;

• Alternative 3 (also 4) -- Requires establishment of a 300-foot riparian corridor comprised of native woody species along restored or permanently diverted intermittent and perennial streams, if the land would naturally revert to forest under natural succession (not required if this would conflict with the approved postmining land use); and

• Alternative 7 – Same as Alternative 2 when enhanced permitting requirements apply, otherwise same as the No Action Alternative.