## Module 9: Operations Map

## [§77.454]

Provide a map or plan that includes the permit area and the area within 1,000 feet of the permit area. The map or plan shall be clear, accurate, easily read and on a scale of no smaller than 1 inch = 400 feet. Maps on the scale of 1 inch = 200 feet for permit areas of 100 acres or less and 1 inch = 400 feet for permit areas larger than 100 acres are preferred. Use the same scale as used for Exhibits 6.2 and 18. Identify the map or plan as Exhibit 9 Operations Map. Each map or plan must bear the seal or facsimile imprint of a registered professional engineer; or the seal or facsimile imprint of a registered professional land surveyor. Show all the following information within the permit area and for a distance of 1000 feet from the permit area, unless specified otherwise. Include an appropriate legend on the map. Indicate which items are present by placing a check mark in the box before the item. Please provide the permit area.

- a) topographic contours (contour intervals of 20 feet or less);
- b) proposed surface mine permit area, and initial bond increment;
- C) surface water bodies such as streams, lakes, ponds, springs, wetlands, mine discharges and constructed or natural drains (include restricted or variance areas, and names of streams and lakes/use a unique label for each unnamed tributary);
- $\boxtimes$  d) property lines (key ownership to Module 5);
- $\boxtimes$  e) buildings (include current use and restricted or variance areas);
- ☑ f) man-made features such as public highways, railroads, utility lines including right-of-ways or easements, and other man-made features (include the name of the highway, railroad and utility and the restricted or variance areas);
- $\boxtimes$  g) oil and gas wells in and within 125 feet of the permit area (include restricted or variance areas);
- h) public or private cemeteries or Indian burial grounds (include restricted areas);
- i) existing or previously surface-mined areas, preact highwalls, existing structures and existing areas of refuse, spoil, waste, and processing waste disposal;
- [X] j) areal extent of active and abandoned underground mines if mining above or through;
- k) solid waste disposal areas;
- I) final working face limit for mineral to be mined (i.e., maximum lateral extent of mineral extraction prior to final postmining slope development);
- m) phases of mining (indicate initial phase, sequence, and direction of mining);
- n) water treatment facilities;
- ☑ o) surface water diversions;
- p) erosion and sedimentation control facilities, including location and size of existing structures, road culverts and drainage ways;
- q) dams and impoundments;
- $\square$  r) berms and spoil storage areas;
- $\boxtimes$  s) topsoil storage areas;
- $\boxtimes$  t) haul roads (outside of area being mined);
- u) refuse disposal areas (indicate any material in the refuse which may be acid forming);
- $\boxtimes$  v) processing facilities and stockpile areas;
- w) air pollution control facilities;
- $\Box$  x) explosives storage areas;
- $\forall$  y) formation contacts and coal croplines (where applicable);
- $\boxtimes$  z) test hole locations (key to 7.1 b data).
- aa) incidental coal extraction areas