

## Module 6: Environmental Resources Maps

### 6.1 • U.S.G.S. Map. [§77.104]

Provide a 7 1/2 minute U.S.G.S. topographic map (latest edition) delineating the proposed surface mine permit area and NPDES discharge points. Identify the map as Exhibit 6.1. (Note: Reproductions or maps obscured by identification keys will not be accepted.) **The proposed Maggie Lynn Mine is located on the Ellsworth and Mather 7.5 minute U.S.G.S. quadrangles.**

### 6.2 Environmental Resource Map. [§77.410]

Provide a map or plan that includes the permit area and the area within 1000 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 Modules 9 and 18. Identify the map plan as Exhibit 6.2 Environmental Resources 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. A registered professional geologist must certify the geology-related information of items m), n), o), and p). 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 this item. Please provide the permit number (if it has been assigned) or a space for it in the title block.

- a) topographic contours (contour intervals of 20 feet or less)
- b) proposed permit area
- c) surface water bodies such as streams, lakes, ponds, springs, wetlands, mine discharges and constructed or natural drains (include restricted and variance areas, and names of streams and lakes/use a unique label for each unnamed tributary)
- d) property lines (key ownership to Module 5)
- e) buildings (include names of the owners and present occupants, and the current use. Show restricted or variance areas)
- f) man-made features such as public highways, railroads, utility lines including right-of-ways or easements and other surface and subsurface manmade features (include the name of the highway, railroad and utility and the restricted or variance areas)
- g) oil and gas wells in and within 125 feet of the proposed permit area (include the name of the well owner/operator and well permit number. Show restricted or variance areas.)
- h) public or private cemeteries or Indian burial grounds (include restricted areas)
- i) existing or previously surface-mined areas, and existing areas of spoil, waste, and processing waste disposal (key to Module 7.4 and show permit name on map)
- j) areal extent of active and abandoned underground mines and entries (Key to Module 7.4)
- k) solid waste disposal areas
- l) test hole locations (key to 7.1 b data)
- m) strata strike and dip or structure contours
- n) geologic faults
- o) formation contacts and coal croplines (when applicable)
- p) direction(s) of groundwater flow (local and regional)
- q) public and private water supplies (include type, elevation of all springs, and key to Module 8.2(a)(8))
- r) public water supplies within 1/2 mile of the permit area and those with Wellhead Protection Zone extending to the permit area. Show on Exhibit 6.1 if outside limits of Exhibit 6.2.
- s) background and proposed monitoring points (key to Module 8. 1A)
- t) NPDES discharge points
- u) landslide prone areas
- v) sinkhole development and known cave systems