Hazards Inventory

An inventory of mine sites identified 20,945 locations in the Interior Columbia Basin; of these, 8,924 sites are within the Eastside study area and 12,021 are in the Upper Columbia River Basin. Specific parameters that relate to the potential for environmental hazards were reviewed for each site. These include the site's production history, current status, type of operation, type of processing plant, and commodities produced at the site. At the time of the assessment (1994), 351 sites were considered active by virtue of current production, development, exploration, or reclamation activities, and 6,644 stone, sand, gravel, and other industrial mineral sites were considered to have little potential for environmental hazard; these sites were excluded from the inventory of potential hazards. Potential for environmental hazards was assessed for the remaining 13,950 inactive or abandoned sites. Comparison with known sites was used to group the sites into those with (A) high potential for environmental hazards, (B) possible hazards, (C) undetermined hazards, and (D) no likelihood of associated hazards. The results of this assessment are summarized in table M6.

Table M6 Summary of potential for environmental hazards at inactive mine sites.

Environmental Hazard Category	Eastside Study Area sites	Upper Columbia River Basin sites	Total sites in both areas
A - high potential	76	88	164
B - possible hazard	79	111	190
C - undetermined	1,154	2,806	3,960
D - no hazard	3,206	6,430	9,636
Totals	4,515	9,435	13,950

At most mine sites in the study area, no environmental hazards are likely (Category D). These sites are mostly prospects or small-scale past producers with limited surface disturbance and little expected concentration of possibly hazardous materials. At a smaller number of sites, information is not sufficient to assess potential for environmental hazards (Category C). These sites include those where status, associated commodities, or other relevant data are not known. Sites in this category are poorly documented in the literature; for some, even the location is not precisely known. Therefore, in a preliminary assessment, it is reasonable to consider the site relatively small and environmentally benign.

The potential for environmental hazards is considered high at 164 sites (Category A), and hazards are judged possible at 190 sites (Category B) in the Interior Columbia Basin. These are mainly past producers of gold, silver, copper, lead, or zinc; others were mined for antimony, barium, chromium, cobalt, fluorite, manganese, mercury, molybdenum, phosphate, tungsten, or uranium as primary products. The sites, typically located in historic mining districts, are shown on figure M7 and summarized in table M7. Size of production ranges from very small to large, and most had mining facilities on site.

This preliminary, subjective assessment of potential hazards is based primarily on published information and does not include assessment of physical (safety) hazards. Details on the nature. and extent of remaining mine wastes, mill tailings, and associated water are not specifically addressed. At many sites, including those where the potential for hazards was rated high, the effects of nature have erased, obscured, or minimized traces of past mining activity. These sites likely pose no threat to human or environmental health.

Table M7 Mining locations with high and possible potential for environmental hazards within the Interior Columbia River Basin.

State	Locations with high potential for environmental hazards		Locations with possible environmental hazards	
	Sites	Mining Districts	Sites	Mining Districts
Idaho	66	38	74	36
Montana	17	14	14	10
Nevada	4	3	23	11
Oregon	38	16	45	23
Utah	1	1	None	-
Washington	38	19	34	14
Wyoming	None	-	None	-

Record keeping has been sufficient to assure that the major, significant mine sites are included in the inventory. Past inventories have demonstrated that field examinations will reveal numerous unreported mining localities; these should be added to the inventory as they become known. Additional study should focus first on high potential and possible hazard areas (Category A and B sites). A brief examination of these sites will determine which should be subjected to more rigorous testing and characterization. Second, as time and budgets allow, further work should focus on sites where potential for hazards remains undetermined (Category C).