

of metals and nonmetals that have been previously mined, are presently being mined, or could be mined in the future.

These seven areas are shown on the map :

Area I, containing 32,000 acres, is north of Mount Shuksan in north-central Whatcom County. It centers around a gold belt that has produced over 1½ million dollars in gold. In addition to gold, the area has 12 significant deposits of silver, lead, zinc, copper, and molybdenum. There are 16 patented mining claims in the area, but lack of access prevents development of them.

Area II, consisting of 5,350 acres, is in central Whatcom County. It centers around Sulphide Creek, 3 miles southeast of Mount Shuksan. Significant deposits of molybdenum are known in the area, and rock alteration, which often is associated with metal deposits, is widespread. Several deposits of molybdenum are currently being explored to determine if mining is feasible. This is the area in which the highest values in molybdenum from more than 1,500 geochemical samples of stream sediments in the State of Washington were found recently by a geologist on our staff.

Area III, containing 25,000 acres in northeastern Skagit County, 6 miles north-east of Marblemount, has produced quartz, talc, and mica. The most readily accessible deposits of quartz and talc in the North Cascades are in this area, and currently several quartz and talc deposits are being mined. State Highway 20 crosses the area, so access to most mineral deposits is good.

Area IV, in eastern Skagit County, includes upper Thunder Creek and the Cascade Pass and Horseshoe Basin mining districts. It contains one of the most concentrated groups of mineral deposits and mining claims in the North Cascades. Within an area of 82,000 acres there are at least 35 significant deposits of marble, gold, silver, copper, lead, and zinc. Of several hundred mining claims in the area, nearly 100 are patented. The upper Thunder Creek district contains 51 patented claims, and the Cascade Pass district contains 46. Recent important discoveries of high-grade silver and lead ore in the upper Thunder Creek district have resulted in increased exploration there. Near Cascade Pass, a flotation mill to treat complex ores is under construction, and exploration and development have been carried on for the past several years to place several silver, lead, and zinc properties into production. However, the biggest problem of the area is access. Many deposits are 15 miles from the nearest road, and only two properties are accessible by road.

Area V, 46,750 acres in eastern Snohomish County and northwestern Chelan County, is northeast of Glacier Peak. It contains the largest known deposit of copper in the Northwest. Ore reserves at Kennecott's Glacier Peak property are reported to exceed 100 million pounds of copper. The area contains deposits of copper, molybdenum, uranium, gold, and silver that are covered by 23 patented and numerous unpatented mining claims. Limited exploration and development work is being carried on at the Glacier Peak property, and in the southeast part of the area, deposits of copper are being explored. As in other areas, the lack of access roads prevents full development of several mineral deposits.

Area VI, consisting of 68,750 acres in eastern Whatcom County, centers around Ruby and Slate Creeks in an important gold-producing region of the North Cascades. Over 3 million dollars in gold has been produced from the area, which contains 20 significant deposits of gold, silver, copper, lead, and zinc. The area contains one of the few operational gold mills in the State, and exploration at several gold properties has been underway for several years. Of the several hundred mining claims in the area, 50 are patented. Most of the area is accessible by road.

Area VII, consisting of 5,000 acres in north-central Okanogan County centers around Eight Mile and Billy Goat Passes. The area contains deposits of copper, lead, and barite that have yet to be adequately explored.

These seven metallized areas of the North Cascades comprise 264,850 acres, of which 164,000 acres fall within the boundaries of the proposed park, wilderness, and recreation areas. These 164,000 acres make up less than 10 percent of the 1,660,000 acres that are proposed for the park, wilderness, and recreation areas, including the already existing Glacier Peak Wilderness. The known mineral deposits in the metallized areas are so situated that relatively short roads would make them accessible and would thus permit exploration and development of the mineral resources. In addition to benefiting the owners of the mineral deposits, who should not be denied access to their properties, the access roads would serve the general public who use the national forests for recreational as well as for other purposes. To permit mining in the metallized areas of the North Cascades would thus contribute to the recreational use of the region. As has