Base from U.S. Geological Survey, 1:250,000
Lewiston, Portland, 1956-72

SCALE 1:125 000

CONTOUR INTERVAL 100 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MINES, PROSPECTS, AND MINERAL SITES, WILDERNESS AND RARE II AREAS, WHITE MOUNTAIN NATIONAL FOREST, NEW HAMPSHIRE

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EXPLANATION

See locality numbers in table 2. The following commodities are shown on the map:

Ag, silver	Fsp, feldspar	Py, pyrite
Au, gold	Gem, gemstones	Qtz, silica
Be, beryl or beryllium	Gn, galena	Sil, sillimanite
Cu, copper	Gr, granite	Sn, tin
Fe, iron	Mi, mica	U, uranium
Mn, manganese	Mo, molybdenum	Zn, zinc
	Pb, lead	

Approximate boundary of wilderness or roadless areas—See figure 1 for names of areas

Abandoned mine or quarry

Abandoned mine or quarry, location uncertain

Prospect or collecting site

Prospect or collecting site, location uncertain

Sand or gravel pit, selected site

Prospecting permit applications

Thorium, uranium, and associated fissionable material

Lead, zinc, silver, and associated minerals, or copper, lead, zinc, silver, and gold

Tin, tungsten, and associated base metals, or tin, tungsten, and bismuth

Surface- and mineral-rights ownership—Both surface and mineral rights are held by Federal Government unless indicated as below

Federally owned surface rights, privately owned mineral rights

Privately owned surface and mineral rights

STUDIES RELATED TO WILDERNESS

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to inventory lands in areas of Federal lands to determine their mineral values, if any, that may be present. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of the Wilderness Study Areas, prospects, and mineral sites in the Great Gulf and Presidential Range-Dry River Wilderness Areas, the Dartmouth Range, Wild River, Pemigewasset, Kinsman Mountain, Mount Wolf-Gordon Pond, Jobildunk, and Carr Mountain Roadless Areas; and the Intervening and immediately surrounding areas in the White Mountain National Forest, Coos, Grafton, and Carroll Counties, New Hampshire. The Great Gulf Wilderness was established when the Wilderness Act was passed in 1964, and the Presidential Range-Dry River Wilderness was established by Congress on January 3, 1975. The Dartmouth Range, Great Gulf, Pemigewasset, Kinsman Mountain, Mount Wolf-Gordon Pond, and Jobildunk Roadless areas were classified as Wilderness Study Areas during the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979.

INTRODUCTION

The areas investigated are located in the White Mountain National Forest in Coos, Carroll, and Grafton Counties, New Hampshire (fig. 1). Field work for prospecting was done from the U.S. Bureau of Mines conducted field reconnaissance of the westernmost, Kinsman Mountain, Mt. Wolf-Gordon Pond, Jobildunk, and Carr Mountain, to the fall of 1980. Field reconnaissance of the easternmost areas, Great Gulf, Presidential Range-Dry River, Dartmouth Range, Pemigewasset and Wild River was conducted in the spring of 1981. A total of 237 rock and 103 panned-concentrate samples were collected during the investigation. Reconnaissance radiometric ground surveys were conducted at selected locations.

The Sandwich Range RARE II Wilderness and Dry River RARE II Wilderness Extension, within the general study area, were not included in the Bureau of Mines part of the resource evaluation because the Bureau has not been scheduled to survey RARE II Wilderness areas to date. Samples of stream sediment and panned concentrate removed by hand auger, and rock samples were analyzed by semiquantitative spectrographic methods. Various selected samples were also analyzed by atomic absorption, fluorometric and radiometric methods, electron microprobe testing, fire assay, and wet chemical methods. Bioassay tests to determine suitability for use in lightweight aggregate were performed on selected samples, and several samples were evaluated for their potential as decorative stone.

Laboratories utilized were the Laboratories, Ltd., Spokane, Washington; U.S. Bureau of Mines Reno Research Center, Reno, Nevada; and U.S. Bureau of Mines Tuscaloosa Research Center, Tuscaloosa, Alabama.

SURFACE- AND MINERAL-RIGHTS OWNERSHIP

Total acreage of wilderness and RARE II proposed wilderness areas in the White Mountains is 217,971 acres or approximately 315 square miles (fig. 1 and table 1). Of this total, 2,890 acres (nearly one percent) are in private ownership, and 98.7 percent of the mineral rights acreage.

There are no outstanding property rights in mining permits within the boundaries of the White Mountain National Forest, but a number of applications have been filed for prospecting permits. Applications filed in 1977 for uranium and thorium are located south of the Pemigewasset FPA (Further Planning Area) along the Kancamagus Highway. Base- and precious-metals applications were filed in 1978 near the western boundary of the forest. In 1982, a number of applications to prospect for U.S. Bureau of Mines-administered sand and gravel were filed for the area south of the Pemigewasset FPA and include tracts within the boundaries of the Sandwich Range RARE II wilderness. Permit application boundaries also extend into small parts of the Pemigewasset, Great Gulf, and Dartmouth Range areas. As of March 1983, none of the applications had been approved.

HISTORY OF MINING AND PROSPECTING

Mining has been of minor importance in the White Mountains region. Early metal mines were small and generally short-lived; there are currently no active mines. Prospects for gemstone collecting, nonmetallic mineral production is currently inactive in the region. Construction materials have a long history of production; sand and gravel is currently being produced from a number of pits.

The only known mining or prospecting within the boundaries of the study area occurred before 1900 in Kinsman Mountain FPA. A lead vein and a liver prospect (localities 58 and 57, table 2) are mentioned in the literature (Welch, 1972), but were not located during the field examination.

METALLIC MINERALS

The occurrence and production of tin, tungsten, and niobium; base-metal sulfides; thorium and uranium; magnetite and beryllium; and gold, and their significance in the study area are discussed in the following sections.

Tin, tungsten, and niobium

Tin was produced in the vicinity of the study areas at the Jackson mine (locality 27) in the mid-19th century. The mine is located about 5 miles south of Wild River FPA and produced a small quantity of cassiterite from four veins in mica schist of the Littleton Formation (Jahns, 1978) near the contact with several granitic intrusives, including the Conway Granite. No production of tungsten or niobium is known.

Semiquantitative spectrographic analyses of nearly 500 panned-concentrate samples collected by the U.S. Geological Survey and the U.S. Bureau of Mines in an area that includes the Sandwich Range FPA, the eastern two-thirds of the Pemigewasset FPA, parts of the Presidential-Dry River Wilderness, and the southern parcel of the Dry River Extension show highly anomalous values for tin. U.S. Bureau of Mines samples taken in the Pemigewasset FPA also have highly anomalous values for niobium (Zabin and others, 1982). A majority of the samples having anomalous tin and niobium values were mapped as Conway or Mount Osceola Granite (Naench and others, 1984; Billings and Williams, 1935; Henderson and others, 1977). No lode occurrences of these metals were located during field investigation of the area, and analyses of bedrock samples indicate only trace amounts. However, lode occurrences may be concealed by dense vegetation or glacial cover.

This same pan sampling program also revealed high tungsten values (Domenico and others, 1982). Most of these samples were from the area west of that containing the high tin values. This western area includes the Carr Mountain, Jobildunk, Mount Wolf-Gordon Pond, and Kinsman Mountain FPAs, as well as some of the western part of the Pemigewasset FPA. The source of the tungsten is unknown.

Base-metal sulfides

The White Mountain National Forest is located in an area containing several types of base-metal sulfide mineralization: lead-zinc-silver sulfides associated with the White Mountain Plutonic-Volcanic Series, probable stratabound copper deposits in metavolcanic rocks of the Littleton Formation, and the copper-pyrite-gold mineralization in the Ammonoosuc Volcanics belt.

Lead-zinc-silver deposits occur in New Hampshire in a belt having a broadly north-south outcrop trend that roughly coincides with the White Mountain Plutonic-Volcanic Series. The deposits usually occur with quartz in brecciated fault zones in the Littleton Formation and granites of the White Mountain Series. Cox (1970) speculates that the mineralizing solutions probably originated in the Jurassic Conway Granite. The deposits are small and none has been mined since World War I. Mines within a short distance of study areas include the Mascot and Shelburne mines (localities 8 and 10) in the northeast and the North Woodstock mine (locality 53) in the southwest. The North Woodstock mine is atypical in that silver-bearing galena occurs in a quartz-sericite-sericite zone rather than in a quartz-breccia zone as exemplified by the Mascot and Shelburne mines. The Mascot mine, one of the more productive lead-zinc-silver mines in the region, yielded a meager 96 tons of lead and 1,014 ounces of silver (Cox, 1970). The only deposits of possible similar origin reported within study area boundaries (Hammack and Girol, 1982) are a lead mine and a silver prospect located along Copple Brook in the Kinsman Mountain FPA (localities 57 and 58).

Other fault-controlled sulfide mineralization in the area includes (1) the Stevens prospect (locality 9); (2) several 1-in.-wide pyrite veins 0.5 mile north of the Wild River FPA in the silicified fault zone that controls the west branch of Connor Brook (Welsh and others, 1982); and (3) a prospect described by Hitchcock (1878), but not located during the field examination (locality 37, table 2).

Geochemical studies conducted for this mineral investigation (Canney and others, 1982; Moench and others, 1984) indicate that copper deposits and possibly molybdenum-bearing tungsten deposits may occur in the narrow belt of metavolcanic rocks assigned to the Littleton Formation. Indicative of this mineralization is the small copper mine on Copperdee Brook (locality 59). It appears to be a stratabound deposit of syngenetic-volcanic origin (Moench and others, 1984).

The Ammonoosuc Volcanics, which contain deposits of copper, zinc, lead, pyrite, and byproduct gold, are located west or north of most of the study areas. The Ore Hill mine (locality 52) located about 5 miles west of the nearest study area, is developed in the Ammonoosuc Volcanics. Within study area boundaries, Ammonoosuc Volcanics are bedrock for only a small part of the Dartmouth Range FPA. No sulfide mineralization was observed during field work in the Dartmouth Range and analyses of rock samples and panned concentrates were negative (Hammack, 1982).

Thorium and uranium

Low-grade thorium and uranium mineralization is present throughout the rocks of the White Mountain Plutonic-Volcanic Series. Pegmatite bodies also are likely hosts for radioactive minerals.

Syngenetic occurrences in the Conway Granite. The Conway Granite exhibits the highest known average thorium and uranium content of any member of the White Mountain Plutonic-Volcanic Series and is recognized as one of the world's largest low-grade deposits of thorium and uranium (Zechmeister, 1978; Page, 1982). The principal known occurrences of thorium and uranium in the Conway Granite are classified as syngenetic disseminations formed during the orthomagmatic stage of crystallization (Rogers and others, 1978).

Because of the widespread occurrence of radiation in the Conway Granite, it may have potential as a source of geothermal energy. In the 1970's, an experimental hole was drilled into this formation at the Redstone quarries (locality 30). The hole was stopped at 3,100 ft because of the progressive decrease in radiation with depth. No additional tests have been made.

The Conway Granite is bedrock in the Pemigewasset and Kinsman Mountain FPAs and the Presidential Range-Dry River Wilderness. About 50 percent of the Pemigewasset FPA is underlain by this formation; occurrences in the other two study areas are smaller. Stream sediments containing low radioactivity were identified with scintillometers and confirmed by laboratory analyses during field reconnaissance. Radiometric and fluorometric analyses of samples collected by the U.S. Bureau of Mines indicate the maximum concentrations to be 98 parts per million (ppm) thorium and 18 ppm uranium (Zabin and others, 1982; Harris, 1982). This is in general agreement with data presented by Adams and others (1962) and Burst and others (1966) who indicate an average thorium content of 34±6 ppm and an average uranium content of 13±3 ppm disseminated in the Conway Granite.

Epigenetic occurrences. A study by Page (1980) suggests that much of central and northern New Hampshire is a good target for exploration for epigenetic uranium and thorium. Primary uranium minerals have been found in an intrusive breccia at locality 55. Surface reconnaissance investigations in the study areas, however, revealed no epigenetic uranium and thorium mineralization. Because of the leaching of uranium minerals from surface exposures and the masking effect of glacial debris, this type of investigation is inconclusive.

Pegmatite occurrences. Pegmatite bodies, especially those spatially associated with the Bethlehem Gneiss, have been considered as likely hosts for radioactive mineralization (Page, 1980). Occurrences of radioactive minerals in New Hampshire pegmatites have been known for many years. Uranium minerals have been collected from shaft no. 2 of the Nelson Quarry, about 20 miles south of the map area. Carr Mountain, Jobildunk, and Mount Wolf-Gordon Pond FPAs are situated near a large pluton of Bethlehem Gneiss, and pegmatites are common in these areas.

Iron and Beryllium

Magnetite of diverse origins is widely distributed in New Hampshire. The deposits of note in the vicinity of the study areas are the Franconia iron mine (locality 65) and the Iron Mountain mine (locality 28). The Iron Mountain deposit is located in Conway Granite in a geologic setting similar to that found within the Pemigewasset FPA. Barton and Goldsmith (1963) describe the Iron Mountain deposit as being of high grade but too small to be commercial.

Nonpegmatitic beryllium in the form of phenacite and danalite is associated with the magnetite in the Iron Mountain deposit. The beryllium content of the "ore body" is high (Barton and Goldsmith, 1963), but the deposit is not of economic size.

Gold

No gold mining has been reported within the boundaries of White Mountain National Forest. Gold was mined in the 1860's and 1870's in the Ammonoosuc gold field (Hitchcock, 1878), located a little northwest of the national forest. Gold production in this district reportedly amounted to $48,000 (Hitchcock, 1878), and the gold was produced primarily from auriferous quartz veins in schists of the lower and middle members of the Littleton Formation and in black slaty schists of the lower Devonian Littleton Formation (Bateman, 1939).

The only other gold mining near the national forest occurred at the White Diamond mine (locality 34). The mine is situated in an area of schistose bedrock of the Littleton Formation (Billings, 1935).

Dartmouth Range FPA is the only study area having Ammonoosuc Volcanics as bedrock, but no gold was detected in analyses of float from the volcanics or from stream-sediment samples collected during field reconnaissance (Welsh, 1982). Shows of placer gold have been reported from several rivers in the area (Bateman, 1939), but analyses of panned concentrates from streams in the study area revealed no gold values.

NONMETALLIC MINERALS

Nonmetallic minerals in the White Mountains include gem stones, refractory minerals, industrial pegmatite minerals, and silica. These are discussed in the following sections.

Gem stones

The collection and sale of gem stones and mineral specimens is of local importance in the White Mountain region. These minerals occur generally in the pegmatites or in small irregular cavities in igneous rocks.

Gem stone minerals commonly collected from the large, zoned pegmatites of the pegmatite mining districts of New Hampshire and Maine are tourmaline and beryl. The Paris-Buckfield district of Maine is particularly famous for its gem tourmaline. Carr Mountain and Wild River FPAs are situated at the margins of the Grafton and Paris-Buckfield districts, respectively, and are therefore more likely to contain pegmatite gem minerals because of the presence in these study areas of large, zoned pegmatites. Minerals seen in pegmatite exposures in these areas during the field reconnaissance were limited to minor amounts of small beryl crystals and black tourmaline of negligible value (Gazdik, 1982; Welsh and others, 1982).

Refractory minerals

In the White Mountains region, the refractory minerals sillimanite and andalusite are found in highly metamorphosed rocks of the Lower Devonian Littleton Formation and the underlying Silurian or possibly Silurian formations. These formations are bedrock in parts of all the study areas.

The only known sillimanite prospect in the area is the Moses Mountain prospect, located in Carr Mountain FPA. Bateman (1941) describes this prospect as an exposure of sillimanite schist measuring 300 feet by 600 feet (locality 42). U.S. Bureau of Mines beneficiation testing in 1941 of a bulk sample from this site was unsuccessful in separating sillimanite from undesirable iron-bearing minerals such as biotite and garnet. Advances have been made in sillimanite beneficiation since 1941 and a reassessment of this prospect might be more favorable.

Littleton Formation beds having notably high alumina content are found in the Great Gulf and Carr Mountain study areas. Billings (1941) mapped alumina mineral occurrences in the Mount Washington region, and defined a zone of "coarse andalusite-coarse pseudomuscovite" extending into the Great Gulf Wilderness. Petrographic analyses of two select samples collected by the U.S. Bureau of Mines from the Great Gulf Wilderness indicate andalusite and sillimanite content of 23±4 percent and 6±9 percent, respectively (Girol and Crandall, 1982). In the vicinity of the Carr Mountain FPA, sillimanite is the common high-alumina mineral. Petrographic studies of select samples from Carr Mountain indicate a sillimanite content as high as 30 percent (Gazdik, 1982). The richer beds are found close to the large pegmatites along Carr Mountain ridge, an association noted by Bannerman (1941). Mica schists of the Littleton Formation in the Carr Mountain area contain numerous andalusite crystals, but seldom at greater less than 30 percent abundance by weight (Welsh and Harris, 1982). Petrographic studies of samples from the study areas indicate the presence of numerous minute inclusions of biotite and magnetite in the andalusite and sillimanite crystals; these inclusions would necessitate beneficiation of the material.

Pegmatite minerals

Feldspar, mica, and beryl have been mined from two pegmatite mining districts in the White Mountains region. At one time, these pegmatite districts were important domestic sources of feldspar and mica and produced byproduct beryl. For many years, however, production has been small or nonexistent. Domestic feldspar, once produced solely from pegmatites, is now produced primarily from alternate sources. In the United States, a few large, well-established pegmatite mines still are active producers of feldspar, but no mines have been active in the Grafton district since 1970 (Proctor and Davis, 1982) and the last feldspar mining ceased in the Paris-Buckfield district about 1977 (Proctor and others, 1981). Mica mining in these districts has been sporadic, being governed by fluctuating prices; since the 1940's, mica has been mined only during periods of government price support. Beryl from these districts has always been a byproduct of feldspar or mica mining and its production paralleds the mining history of these two minerals.

Grafton district. Within 3 miles of the Carr Mountain study area are 10 mica and feldspar mines and prospects of the Grafton district (Cameron and others, 1954). Of these only the Atwood mine (locality 40), 2.5 miles southwest of the study area, yielded significant production. The nearest prospecting occurred at the Eight Ball prospect about 1,000 feet west of the boundary of Carr Mountain FPA (locality 45). Only a small quantity of sheet mica, found sparsely distributed in the pegmatite, was recovered. The core-margin zone yielded sheet mica up to 10 by 12 inches, but the zone proved to be discontinuous and the mica was of poor quality (Cameron and others, 1954). Beryl was also present in the core-margin zone.

About 60 percent of the economically valuable pegmatites in the Grafton district are found in the Littleton Formation and a large part of these are clustered near the contact of the Littleton Formation with the Bethlehem Gneiss (Cameron and others, 1954). Pegmatites close to the Littleton-Bethlehem contact are common in the southern half of the Carr Mountain study area and large pegmatite bodies cap many of the high points (Gazdik, 1982). Zoning can be observed in a number of the outcrops. Mica occurs in both border and intermediate zones.

Paris-Buckfield district. About 2 miles east of the boundary of the Wild River study area is the nearest productive mine, the Hillard Chandler mine (locality 20), in the Paris-Buckfield district. The products from this mine were feldspar and beryl (Page and Larrabee, 1962). Mica was produced from the Willis Warren quarry (locality 18), about 3 miles to the east. Mica from this mine was of unusually fine quality but was not abundant (Cameron and others, 1954).

In this district, pegmatites occur most commonly in metamorphic rocks (Cameron and others, 1954, fig. 4), some of which have been determined to be Littleton Formation (Fisher, 1962; Billings and Fowler-Billings, 1975), but commercially valuable pegmatites are also found in other rock types in the district (Fisher, 1962).

Near the southeastern boundary of the Wild River FPA, zoned pegmatites occur in the Littleton Formation in close proximity to outcrops of the Kinsman Quartz Monzonite. Accessory minerals in these granitic pegmatites are garnet, tourmaline, and occasional beryl crystals. The largest muscovite books observed in the study area measured 5 inches in diameter, were run colored, and exhibited ruling defects (Welsh and others, 1982).

The intervening area between the recognized pegmatite mining districts has numerous small pegmatite stringers that are generally unzoned and seldom exceed 2-3 feet in thickness. The Mt. Wolf-Gordon Pond FPA and Great Gulf Wilderness, however, contain numerous large pegmatites up to 1,000 feet long and 100 feet wide, but these are incompletely zoned and have no apparent sheet mica or beryl (Girol and Crandall, 1982; Martin and Wawro, 1982).

Silica

Sources of silica in New Hampshire are abundant and include silicified fault zones, quartzites and quartz conglomerates, and pegmatites. The only silica sources of potential economic value in the study areas occur in the Littleton Formation. Quartzite beds have been used as a source of silica for ferrosilicon production and as a flux in metallurgical and ceramic industries. Analyses of three samples collected in the Dartmouth Range FPA were reported to contain 99.2, 99.5, and 94.1 percent SiO_2 (Miller, 1982). One sample having 99.5 percent SiO_2 was collected from the largest and most prominent silicified zone in the area described by Billings (1941) as 80 feet wide and several hundred feet long. The remaining silicified zones are much smaller, averaging 40 feet wide and less than 100 feet long.

CONSTRUCTION MATERIALS

Construction materials of present or past importance in the White Mountains include sand and gravel, dimension stone, and peat and diatomaceous earth. Blasting tests reported by Stewart (1959) indicated that schists from the Littleton Formation may have potential as lightweight aggregate. Similar tests performed on schist samples from The Littleton Formation from the Great Gulf Wilderness were negative (Girol and Crandall, 1982).

Sand and gravel

Deposits of sand and gravel, located in areas of glacial drift, outwash, and recent stream deposition, are widespread throughout the White Mountains and occur in all the study areas.

Several active pits are located near the Great Gulf Wilderness. The pits are on private land and serve as a source of road metal for the Mount Washington Auto Road (Girol and Crandall, 1982). A large active pit, near Twin Mountain, is about 5 miles west of the Dartmouth Range FPA. This deposit covers 80 acres and is as much as 70 feet thick (Miller, 1982). Many sand and gravel pits occur throughout the White Mountains, and no attempt has been made in this report to indicate the numerous sites.

Dimension stone

Conway Granite has been extensively quarried in the vicinity of Conway (Dale, 1923), but the quarries have been inactive since the 1930's (localities 29, 30, and 31). Conway Granite is bedrock for much of the Pemigewasset FPA, and also in the Kinsman Mountain and Presidential Range-Dry River Wilderness. However, rock units from these areas were not tested for structural qualities.

During the field reconnaissance of Carr Mountain and Presidential Range-Dry River, samples were taken from gabbro bodies in the study areas with the intention of evaluating their potential as decorative building stones. This type of rock is highly valued for monuments and wall facings if it has a rich, dark color and peacock-hued reflections. After cutting and polishing, samples from Carr Mountain and Presidential Range-Dry River study areas were evaluated visually for their decorative qualities. Polished faces of these samples are lighter colored than popular decorative gabbros and are flecked with light-gray minerals. Samples from Carr Mountain FPA have small clusters of pyrite crystals which, upon weathering, will cause brown staining and detract from the overall appearance (Gazdik, 1982). Gabbro from the Presidential Range-Dry River Wilderness appears to be free of sulfides that might cause unsightly staining (Harris, 1982).

Peat and diatomaceous earth

Glacial depressions in the White Mountains are frequently occupied either by bogs or ponds that may contain commercial deposits of peat or diatomaceous earth.

Small bogs are present in a number of the study areas but only the peat bog at the head of Brown Brook (locality 48) in the Carr Mountain FPA is possibly large enough to support a small peat mining operation. The bog is approximately 100 acres in size. No testing was performed to determine the value of the peat.

Efforts to here for diatomaceous earth in two ponds at the Three Ponds area in Carr Mountain FPA proved fruitless. The pond bottoms are covered by glacial drift and little sediment could be raised in the boring tube. Ponds and bogs in the other study areas have not been tested, but probably only ponds at an elevation of 2,560 feet on the south side of Mt. Wolf and Bog Pond near the Mount Wolf-Gordon Pond FPA (Morris and Vawter, 1982) are large enough to warrant investigation.

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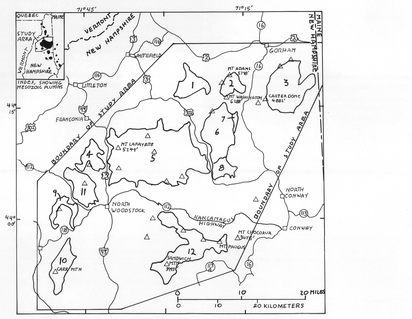

Figure 1.—Index map showing existing wilderness (EW), proposed wilderness (PWA), and further planning (FPA) areas of the White Mountain National Forest, New Hampshire: (1) Dartmouth Range FPA; (2) Great Gulf EW; (3) Wild River FPA; (4) Kinsman Mountain FPA; (5) Pemigewasset FPA; (6) Presidential Range-Dry River EW; (7, 8) Dry River Extension PWAs; (9) Jobildunk FPA; (10) Carr Mountain FPA; (11) Mount Wolf-Gordon Pond FPA; and (12) Sandwich Range PWA.

Table 1.—Federally-owned surface- and mineral-rights acreage for wilderness, RARE II areas shown on figure 1, in White Mountain National Forest, Carroll, Coos, and Grafton Counties, New Hampshire

Area name	Total surface acreage	Federally-owned surface acreage	Federally-owned mineral acreage
Carr Mountain	9,000	9,000	7,000
Dartmouth Range	10,142	10,142	10,142
Great Gulf	5,552	5,552	5,552
Jobildunk	4,950	4,950	4,950
Kinsman Mountain	8,420	8,420	8,420
Mount Wolf-Gordon Pond	11,179	10,949	10,949
Pemigewasset	76,610	75,950	75,950
Presidential Range-Dry River	20,380	20,380	20,380
Dry River Extensions	6,884	6,884	6,884
Sandwich Range	37,884	37,884	37,884
Wild River	27,000	27,000	27,000
Total acreage	217,971	217,081	215,081

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