October 17, 2016

ATTN: National Monument Plan Amendment
to Angeles National Forest
Justin Seastrand, Environmental Coordinator
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Arcadia, CA 91006

Subject: San Gabriel Mountains National Monument Plan and Land Management Plan Amendment #46964

To Whom It May Concern:

This letter is written jointly by the California Federation of Mineralogical Societies, Inc. (CFMS) and San Diego Mineral & Gem Society, Inc. (SDMG). As a regional affiliate of the American Federation of Mineralogical Societies (AFMS), CFMS represents 108 gem-mineral-lapidary clubs located primarily (but not exclusively) in the State of California. These clubs have 8747 dues-paying members (in aggregate). SDMG is a member of both CFMS and AFMS. SDMG has nearly 1500 newsletter subscribers and 800 dues-paying members, making it the largest gem-mineral club in California and one of the largest clubs in the United States.

On behalf of our affiliate clubs and their individual members, we respectfully request consideration of the comments herein concerning the San Gabriel Mountains National Monument (SGMNM) Management Plan (MP) Draft Environmental Assessment (EA). First, we support the conservation objectives afforded by the National Monument designation and administration of the Monument by the Forest Service, which will ensure the protection of California's wildlands, its natural landscapes, and fragile ecosystems.

We are heartened that the Draft EA explicitly permits recreational activities. Notably, the EA enumerates permissible activities such as OHV, fishing, and shooting (pp. 65ff). However, we are deeply concerned that the Draft EA for the San Gabriel Mountains NM (notably) omits explicit accommodation of recreational rockhounding/rock collecting. We strongly urge inclusion of explicit language to accommodate recreational rockhounding activity within the Monument, especially because the prohibition against surface-disturbing activity appears to have broad application that would implicitly deny recreational rock collecting anywhere within the Monument.

We believe that rockhounding is not only a recreational activity, but also has educational and social value for teaching future scientists and stewards of our public lands about the natural history unique

to California. It provides opportunity to better understand the processes of Nature's laboratory through direct experience of its geologic and mineralogic wonders. It is an activity of exploration and discovery that enriches our breadth and depth of knowledge about the geology and mineral resources of our world on both a granular scale and in relation to its wider geologic setting. Also, many collecting areas and mining prospects are an historical legacy of human occupation in California. These human activities – by indigenous peoples and westward-bound prospectors who settled here, especially in the 19th century – are inextricably embedded in the customs and culture of the land.

We would like to emphasize that recreational rock collecting is an activity compatible with the guidelines articulated in the EA and the Framework for Sustainable Recreation. The AFMS and CFMS Code of Ethics are consistent with federal guidelines concerning National Monuments. On CFMS affiliate-sponsored field trips, participants sign a waiver adhering to the AFMS Code of Ethics, which stipulates that rock collecting activity should cause no willful damage to collecting material and "...take home only what ...[we] can reasonably use," "practice conservation and ...utilize fully and well the materials...collected and ...recycle...surplus for the pleasure and benefit of others," and "appreciate and protect our heritage of natural resources." We admonish our field trip participants to pack out what they pack in, pick up trash, mind habitat and vulnerable natural features, observe all laws and regulations – in short, we teach and practice responsible stewardship of our public lands.

We would like to point out that Senator Dianne Feinstein recently advocated accommodation of rock collecting activity in the three California Monuments that were created by the President earlier this year at her urging (Mojave Trails, Sand To Snow, and Castle Mountains). In a letter to Department of the Interior Secretary Sally Jewell dated May 12, 2016, she wrote on our behalf:

> "Having heard from the highly dedicated and enthusiastic rockhounding community on this issue, I worked to accommodate their interests in the California Desert Conservation and Recreation Act (S. 414)—the impetus for the President's recent designation of the three aforementioned national monuments [Mojave Trails, Sand to Snow, Castle Mountains]. That bill made clear that the Secretary shall continue to authorize rockhounding (*see* Sec. 101).
>
> The Presidential proclamation that designated the Monument [Mojave Trails NM] provides latitude for existing uses and activities and does not limit or prohibit rock hunting. Rockhounders are welcome to continue collecting limited amounts of rocks, minerals, and gemstones in the Monument in accordance with the Bureau of Land Management's rock collecting guidelines."

Senator Feinstein asked for policy clarification from Secretary Jewell, and in closing, she wrote:

> "I am confident that the BLM, Forest Service, and National Park Service will continue to support public access and recreation in their management of these national monuments. And I hope that your Department will consider the benefits of allowing continued rockhounding and hobbyist collecting, where suitable."

Senator Feinstein is a longtime champion of conservation and other important values that monument designations of public lands in California aim to protect. She has gone on record attesting to the compatibility of the values enshrined in the Monument designation with the values of the rockhound community. For our community, these principals are applicable wherever we go collecting, because they are based on core values that are universal. We believe the same considerations should extend to the Management Plan for the San Gabriel Mountains NM, which now encompasses rock collecting areas that have long been important to our community.

SPECIFIC FEATURES OF CONCERN IN THE DRAFT EA

Concordance/consistent directives. Conflicting language in different parts of the Plan (e.g., the appendices) should be made consistent to avoid confusion and avoid nullification of rockhounding accommodation articulated elsewhere in the Plan.

Incorporate explicit language concerning rock collecting as an "activity" and as a "social value." Access to public lands is essential to collect, preserve, and exhibit rocks, minerals, and invertebrate fossils. Recreational rock collecting provides educational opportunities to enrich the public's appreciation of nature. Public lands are a living outdoor classroom where our children, students, naturalists/scientists, and enthusiasts/recreational users can discover and learn about California's unique geology and minerals.

Many longtime favorite collecting areas – some dating back 100 years or more – are located within the boundaries of the Monument. They are Key Places that date to the days when the ancestors of modern "rockhounds" were prospectors. Thus, amateur rock collecting/rockhounding is deeply connected with the customs and cultures of the land. We ask that traditional rock collecting areas be designated suitable land use zones within the Monument. Some of important areas are listed below in the body of this letter and also in Appendix I (enclosed).

Clarify nomenclature. Contemporary practices and values of amateur rockhounding or recreational rock collecting are different from commercial prospecting or mining. Clear language differentiating recreational rock collecting from commercial prospecting or mining needs to be incorporated into the Management Plan. The constraints or prohibitions on these activities need to be differentiated accordingly. The same filters should not be applied to both "amateur/recreational" and "commercial or mining-scale" activities for assessing impacts on environmental sustainability. Neither the activities – commercial vs. recreational – nor their impacts are comparable.

It is also important to draw clear distinction between amateur rock collecting and mining with regard to Disturbance Caps. These activities cannot be conflated together and weighted the same. If they are, it will be an unfair detriment to rockhounds, whose activities are modestly intrusive, employing hand tools for the acquisition of small quantities of material. A standard for assessing the impact on the environment by rockhounding activity should take into account that natural seasonal erosion and weathering effaces most evidence of rockhounding undertaken responsibly.

Recreational rockhounding is defined as the Non-Commercial collecting of Rocks, Minerals and Fossils, according to established laws, rules and regulations, for personal and educational use, see: Part 8365 of Title 43 CFR [Code of Federal Regulations], which provides for the collecting of "reasonable quantities" of rocks, minerals, semiprecious gemstones, and invertebrate and plant fossils of non-scientific importance, for personal use.

The term surface-disturbing activity needs to be clarified in the EA to exempt designated areas from prohibition of recreational rock collecting, which is customarily a surface-disturbing activity. In general, the adverse impact on environmental sustainability caused by recreational rock collecting is minimal: it entails digging holes and crevices with hand tools, and evidence of it is effaced by seasonal weathering and natural erosion (see comments above regarding Disturbance Caps).

Social Values. Recreational rock collecting should be listed with the other recreational opportunities enumerated throughout the EA (see, for example, p. 91):

> "Other commenters voiced their values for a variety of recreation opportunities, such as climbing, fishing, camping and hiking. Recreation opportunities not only contribute to local economies, but they provide sense of place for people living in the area. One comment was that

'These areas are critical in providing opportunities for healthy, active outdoor recreation, and fostering a sense of connection to nature and place. They also play an important role in supporting the outdoor recreation economy.' "

In December 2014 through February 2015, SDMG sponsored a survey focused on collecting sites located primarily in California's deserts, with trips dating back to 2009. Nearly 190 respondents in our limited survey were queried, in part, to gauge their impact on local economies, including the use of services such as hotels, service stations, grocery stores, specialty and outfitter-type shops, restaurants, et cetera. Rockhounds typically travels many miles round-trip (500+ is not unusual, with duration of trips proportionately greater with distances travelled): 47% maded 11 or more day-long trips annually, 49% made overnight trips (24% made 3–4 trips; 25% made 11 or more trips), 83% made long weekend trips (the distribution was nearly even between 2 and 11 or more trips), and 31% made weeklong trips twice per year. Motel/hotel patronage was 53%, campground patronage was 60%, and visits to visitor centers was 54%. Stops for food (grocery stores and restaurants) were above 84% and gasoline stops were 96%. Over 48% visited specialty shops.

We think the recreational economy of rockhounding field trips to localities in the San Gabriel Mountains is at least comparable to other Southern California destinations.

COLLECTING AREAS IN THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT (AND ITS ENVIRONS)

New accommodations or creation of visitor enhancements are not requested at this time. We are seeking to preserve access via existing roadways (motorized and non-motorized trails) and also allowance for parking and staging areas as existed prior to the creation of the Monument. Please note that access is effectively negated, if rockhounds have to hike more than ¼ mile to a collecting area or they have to find another route due to a locked gate blocking a secondary road – it would prevent many of our senior members from participating in field trips.

Some rock collecting areas border the Monument or are located in "buffer zones" adjacent to the Monument. We request consideration of rockhounding concerns for access to these areas from within the Monument and also accommodation of recreational rock collecting activity should these areas be considered for acquisition/annexation or land exchanges which may bring them into the Monument in the future. Future land use amendments should include specific language to accommodate access to these areas and permissibility of collecting.

We respectfully request inclusion in the Monument Management Plan of other sites published on mindat.org (See Appendix I). The URLs are given with geographic descriptors for the sites in the Appendix. Some have mineral occurrence of less interest to rockhounds per se, but they have educational value, providing specimens of mineral occurrence. Therefore, they are included here for their mineralogical value.

Mindat is a database of minerals and mineral localities identified throughout the world. It was created by Jolyon Ralph in 1993 and is now administered by the Hudson Institute of Mineralogy, a 501(c)(3) non-profit organization based in New York. Mindat is a respected, recognized authority. It is a resource used by mineralogists and cited in professional peer-reviewed journals and publications. Mindat records for localities typically include a list of minerals with descriptions, location (GPS, Lat/Long coordinates, or PLAT references), descriptive features of the area, maps, literary references, and (sometimes) photographs. Information about travelways and routes of access is sometimes, but not always found in Mindat records. The collecting area information given below summarizes salient data frequently explicated in more detail (with maps, photos, and references) in Mindat.)

Collecting areas and mining claims for mineral ores that may be characterized as "historical" (e.g., argentiferous deposits, auriferous placers, or mineralization veins) are numerous in the Monument. They are not specifically enumerated herein, but many of these old deposits or mining areas are listed in Mindat at: http://www.mindat.org/loc-28941.html.

Angeles Crest Highway, west of Wrightwood

Material. Actinolite.

Description.

Areas in the vicinity of State Highway 2, beginning at approximately 5 to 7 miles west of the N4 junction (4.7 miles west of Wrightwood) have long been known to rockhounds for fibrous green actinolite. The collecting areas are located primarily within a Developed Area Interface (DAI) in the northeastearn part of the SGMNM, adjacent to/north of the Sheep Mountain Wilderness (see enclosed PDF maps: **Figures 1, 2**). We ask the Forest Service to permit collecting in "Site 39" and ensure vehicular access and parking/staging is allowed along Hwy 2 and its tributary roads/trails.

Reference.

J. Mitchell. 2003. *Gem Trails of Southern California,* 2nd edn. (Upland, California, Gem Guides Book Co.), pp. 102–103 (Site 39).

San Antonio Canyon, Cascade Canyon (Collecting area is adjacent to the Monument)

Materials.

Lapis lazuli; corundum, var. ruby, sapphire. Other minerals include: calcite; diopside; dravite; epidote; forsterite; garnet; glaucophane; K feldspar; monazite; fuchsite; phlogopite; pyrite; rutile; sillimanite; titanite; tremolite.

Description.

The earliest reference to lapis lazuli found in Cascade Canyon may date to the 1860s (C.W. King). Access to the locality is difficult: by hiking down steep and rugged terrain on the southwest side of Ontario Peak in Cascade Canyon (34° 12' 46" North, 117° 39' 47" West) (see enclosed: **Figures 1, 2**).

According to Housley:

> "…landslides and storms continually bring material down to where it [lapis lazuli] can be found along lower Cascade Creek in the vicinity of Barrett-Stoddard Road, or just below its mouth along San Antonio Creek. Corundum and other interesting metamorphic minerals are abundant in these places."

According to Mindat:

> "An E-W-trending branch of San Antonio Canyon located in the NE¼SE¼ sec. 36, T2N, R8W, SBM.
>
> Approximate elevation of mineralized area is between 4500 and 5000 feet. Geologically, the area consists of metamorphic rock intruded by some granitic masses. Principal stratified layers have an east-west strike and a north dip of about 60 degrees. Beds from north to south consist of quartzite, limestone followed by quartzite, limestone and gneiss. This series is correlated with some paleozoic limestone in the San Bernardino mountains. Mineralization of the area is probably in part due to the intrusion of the igneous mass.
>
> At least 20 minerals can be collected in the Cascade Canyon area, among them lazurite, diopside, corundum, "hydrotroilite" and phlogopite. Lapis lazuli occurs in the limestone in small bands

from 1/8 inch to six inches wide, sometimes containing pyrite crystals. Corundum has not been found in the canyon proper, but good specimens have been obtained in San Antonio wash. Crystals are from 1/4 inch to one inch in length and are of a pinkish color."

Locator and Literary References:

Cascade Canyon, San Antonio Canyon, San Gabriel Mts, San Bernardino Co., California, USA. Available at: http://www.mindat.org/loc-28245.html. Accessed 11 September 2016.

R. Housley. 12 October 2012 [updated]. History of Cascade Canyon Lapis and Corundum Deposits, San Gabriel Mountains, CA. Available online at: http://www.mindat.org/article.php/1575/History+of+Cascade+Canyon+Lapis+and+Corundum+Deposits%2C+San+Gabriel+Mountains%2C+CA. Accessed 11 September 2016.

R. Housley. 29 September 2012 [updated]. Gem dravite from Cascade Canyon, San Gabriel Mountains, California, USA. Available online at: http://www.mindat.org/article.php/1570/Gem+dravite+from+Cascade+Canyon%2C+San+Gabriel+Mountains%2C+California%2C+USA. Accessed 11 September 2016.

N. Borchert. 1961. A new strike of Lapis-Lazuli in California. Lapidary Journal XV, pp. 106-107.

W.W. Bradley. 1940. Thirty-sixth report of the State Mineralogist: California Division Mines Report 36, p. 456.

P.L. Ehlig. 1958. The Geology of the Mount Baldy Region of the San Gabriel Mountains, California, UCLA.

Pacoima Canyon (Collecting areas are mostly outside of the Monument. A portion extends into the Monument)

Materials.

Allanite group, annabergite; apatite; beryl; biotite mica; covellite; epidote; microcline feldspar; oligoclase feldspar; plagioclase feldspar, var. albite; fluorapatite; garnet; graphite, hornblende; ilmenite; malachite; melanterite; muscovite mica; perthite; pyrrhotite; quartz; siderite; stibnite; thorite, var. uranothorite; titanite; zircon.

Description.

A range of minerals are found at the Pacoima Canyon collecting locality (34° 20' 52" North, 118° 23' 0" West) (see enclosed: **Figures 1, 2**).

"Several pegmatites of interest to mineral collectors occur in the gabbroic rocks in Pacoima Canyon. The largest of these is exposed about a hundred meters up the south wall of Pacoima Canyon about Â½ km above the mouth of the North Fork. The largest of the pegmatites is exceptional for its content of well-formed crystals of allanite, apatite, beryl, uranothorite and zircon." (Source: B. Carter. April 2010. Bulletin of the Mineralogical Society of Southern California 41(4))

According to Mindat:

An occurrence of blue quartz is found in the NE¼ sec. 6, T3N, R13W, SBM (http://www.mindat.org/loc-209819.html). Annabergite, covellite, malachite, pyrrhotite, and siderate are found at a former Cu-Ni mine located in the central SW¼ of the NE¼ sec. 10, T3N, R14W, SBM (http://www.mindat.org/loc-21114.html). An allanite pegmatite occurrence hosted in norite is located in sec. 17, T3N, R13W, SBM, on the south wall of the South Fork of Pacoima Canyon, with many of the materials listed above found at this locality; see also: 34° 21' North, 118° 23' West (http://www.mindat.org/loc-25102.html). A biotite occurrence is located on the opposite side of the ridge from the allanite pegmatite (http://www.mindat.org/loc-210386.html). An apatite occurrence/prospect is located in the center NW¼ sec. 12, T3N, R14W, SBM, in Pacoima Canyon,

1.5 miles E of the Denver-Indicator Mine, near the mouth of Noel Canyon (http://www.mindat.org/loc-220301.html).

Locator References.
Pacoima Canyon, San Gabriel Mts, Los Angeles Co., California, USA. Available online at: http://www.mindat.org/loc-26974.html. Accessed 14 September 2016.
(Additional references are cited on this web page.)

Agate Valley (part of collecting area is within the Monument, part is located in the buffer zone adjacent to it)
Materials. Agate, primarily, and other associated minerals.

Description.
Botryoidal agate and agate nodules are found in the Mount Emma Road collecting areas (see: T5N R11W Sections 30 & 31; T4N R12W Sections 1, 2 & 11).

We appreciate having the opportunity to provide comments on the Draft EA, and we look forward to seeing the interests and values of the community of recreational rockhounds reflected in the Final Management Plan.

Sincerely,

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enc

APPENDIX I:
Mineral localities in the environs of SGMNM (Source: mindat.org)

Locality	Latitude	Longitude
San Gabriel Canyon, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-3496.html (baryte, Ag, and others)	34° 9' 38" N	117° 54' 28" W
Felix Mine, Azusa (Dalton), San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-11149.html (fluorite and numerous other minerals)	34° 9' 6" N	117° 54' 0" W
Azusa (Dalton), San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-219024.html (fluorite and numerous other minerals)	34° 8' 0" N	117° 54' 24" W
Sierra Vista prospect, Spanish Canyon, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-81448.html (schleelite)	34° 10' 33" N	117° 57' 48" W
Kelsey Mine, San Gabriel Canyon, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-13814.html (baryte, Ag, and others)	34° 11' 29" N	117° 53' 20" W
Spanish Canyon, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-219025.html (schleelite)	34° 10' 6" N	117° 59' 27" W
Santa Anita Canyon, Sierra Madre, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-220907.html (Azurite, malachite, quartz, and others)	34° 10' 14" N	118° 1' 20" W
Winter Creek Mine (Winter group; Winter Creek Mine group; Winter Creek prospect), Santa Anita Creek, Santa Anita Canyon, Sierra Madre, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-81521.html (Azurite, malachite, quartz, and others) http://www.mindat.org/loc-220907.html (Azurite, malachite, quartz, and others)	34° 12' 12" N	118° 1' 13" W
Cascade Canyon, San Antonio Canyon, San Gabriel Mts, San Bernardino Co., California, USA http://www.mindat.org/loc-28245.html (described in the comment letter)	34° 12' 46" N	117° 39' 47" W
Bighorn Mine (Big Horn; Lapis Lazuli deposit), Cascade Canyon, San Antonio Canyon, San Gabriel Mts, San Bernardino Co., California, USA http://www.mindat.org/loc-88088.html	34° 12' 36" N	117° 38' 44" W

Locality	Latitude	Longitude
Mount Baldy, Mount Baldy District, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-222909.html (andalusite)	34° 14' 9" N	117° 39' 35" W
Coldwater Canyon, Mount Baldy, Mount Baldy District, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-215908.html (andalusite)	34° 14' 3" N	117° 43' 36" W
Ontario Peak, San Gabriel Mts, San Bernardino Co., California, USA http://www.mindat.org/loc-28942.html (forsterite)	34° 13' 38" N	117° 37' 27" W
San Antonio Canyon Corundum, Claremont, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-81429.html (corundum)	34° 9' 53" N	117° 40' 44" W
San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-28941.html (general area overview listing with multiple localities)	34° 9' 46" N	117° 40' 53" W
Cucamonga Canyon, San Bernardino Co., California, USA http://www.mindat.org/loc-216952.html (zeolite)	34° 9' 41" N	117° 38' 12" W
Table Mountain, Big Pines, San Gabriel Mts, Los Angeles Co., California, USA http://www.mindat.org/loc-219866.html (phlogopite, spinel)	34° 22' 59" N	117° 41' 7" W
Wrightwood, San Gabriel Mts, San Bernardino Co., California, USA http://www.mindat.org/loc-218974.html (Actinolite; Albite, 'Albite-Anorthite Series'; Calcite; 'Chlorite Group'; Epidote; Magnesite, var: Ferroan Magnesite; 'Mica Group', Muscovite; Quartz; Rhodonite; 'Serpentine Subgroup'; 'Garnet Group', Spessartine; Talc; 'Tourmaline'; Tremolite)	34° 21' 38" N	117° 37' 59" W
Acton, Acton District, Los Angeles Co., California, USA http://www.mindat.org/loc-81112.html (Azurite; Calcite; Chalcopyrite; 'Feldspar Group'; 'Heulandite'; Malachite; Opal; Quartz, var: Chalcedony, var: Jasper; 'Stilbite'; 'Thomsonite'; Titanite, and other minerals)	34° 28' 11" N	118° 11' 44" W
Acton deposit, Antelope Valley, Acton, Acton District, Los Angeles Co., California, USA http://www.mindat.org/loc-81112.html (see preceding record) http://www.mindat.org/loc-222412.html (see preceding)	34° 28' 31" N	118° 11' 36" W

APPENDIX I *(con't pg 3rd of 3 pages)*

Locality	Latitude	Longitude
Stewart Jasper deposit, Antelope Valley, Acton, Acton District, Los Angeles Co., California, USA http://www.mindat.org/loc-81464.html (jasper)	34° 29' 2" N	118° 8' 22" W
Collecting Site Mine, Antelope Valley, Acton, Acton District, Los Angeles Co., California, USA http://www.mindat.org/loc-81190.html (opal; quartz var: chalcendoy)	34° 29' 11" N	118° 15' 8" W

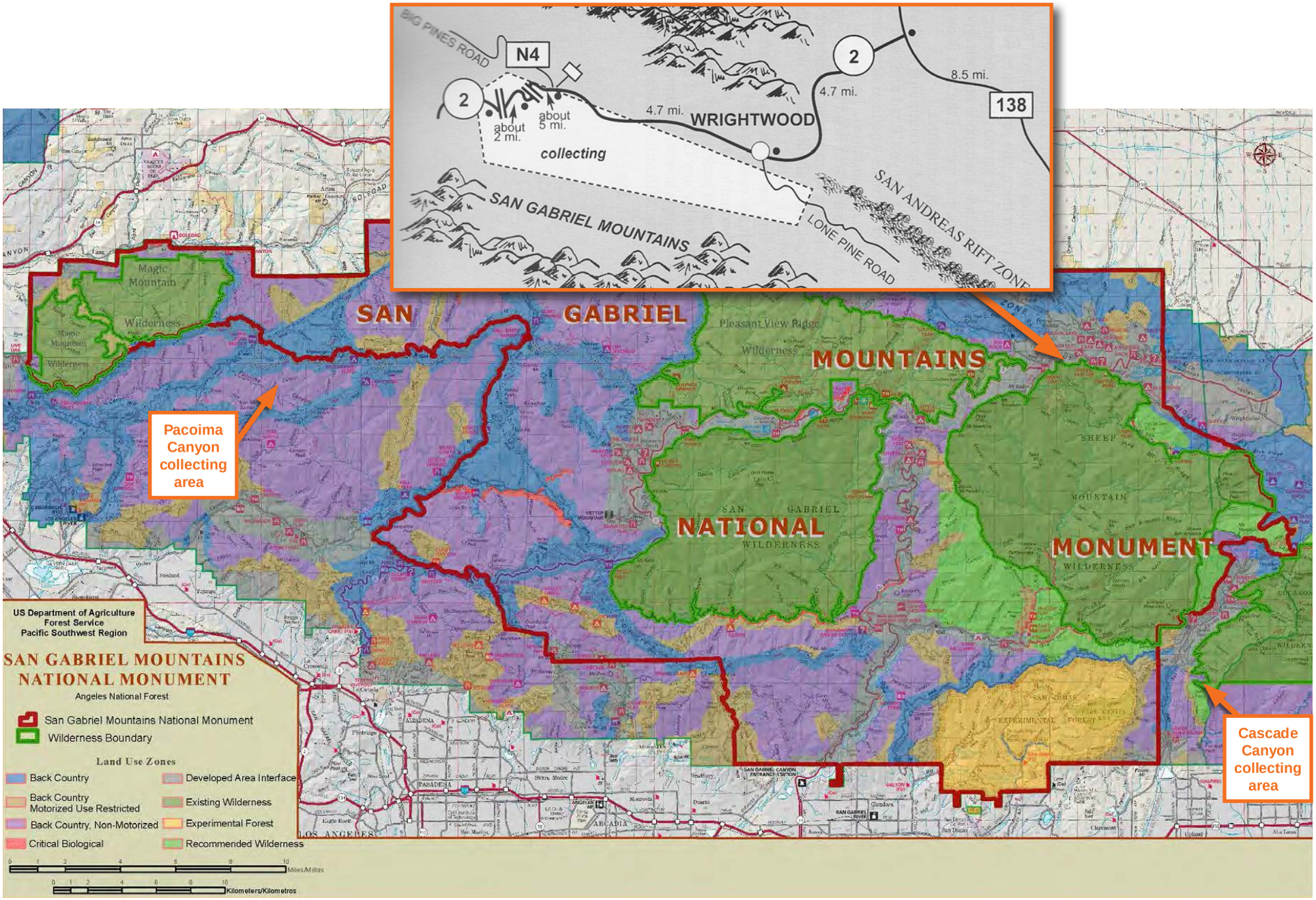

Figure 1. Collecting areas in and around San Gabriel Mountain National Monument – land use zone map. Source: San Gabriel Mountains National Monument Management Plan *DRAFT Environmental Assessment*, August 2016, p. 23. **Overset image:** Detail, collecting area west of Wrightwood. Source: J. Mitchell. 2003. *Gem Trails of Southern California*, Second rev. edn. (Upland, California, Gem Guide Book Co.), p. 103.

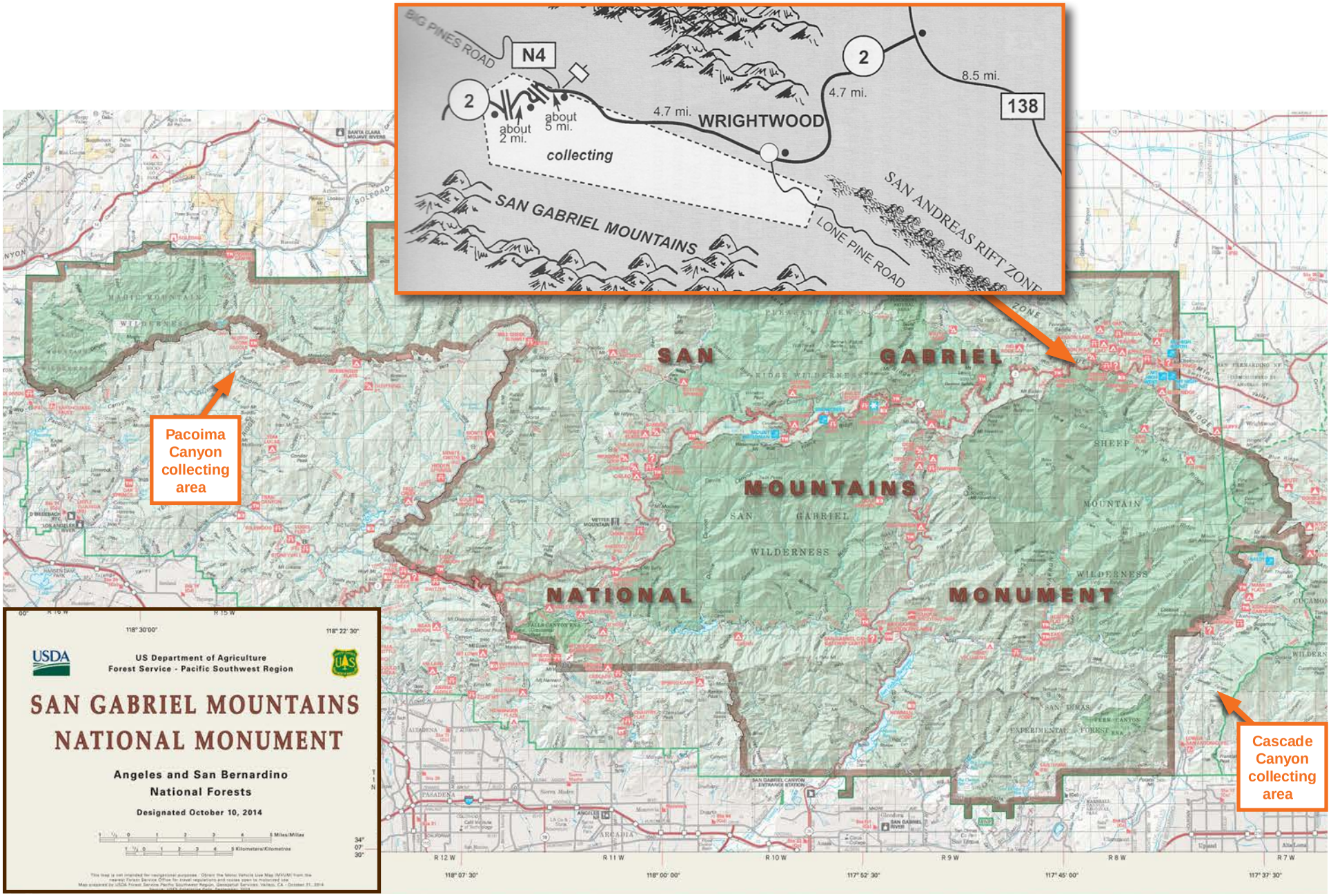

Figure 2. Collecting areas in and around San Gabriel Mountain National Monument. Source: San Gabriel Mountains National Monument Final Map, available at: http://www.fs.usda.gov/project/?project=46964, accessed 19 September 2016. **Overset image:** Detail, collecting area west of Wrightwood. Source: J. Mitchell. 2003. *Gem Trails of Southern California*, Second rev. edn. (Upland, California, Gem Guide Book Co.), p. 103.