

## 4.3 WILDERNESS

This section includes discussion of potential impacts of the proposed Base-to-Base Gondola project on the National Forest System-Granite Chief Wilderness (GCW), which is adjacent to the project area (i.e., the area generally encompassed by all three action alternatives). No construction, and therefore no direct effects, would occur on National Forest System (NFS) lands within the GCW. However, indirect impacts on its wilderness character and wilderness users could occur, as described below. This section additionally assesses impacts associated with a portion of privately owned land that was included within the area mapped by Congress as part of the GCW within the 1984 California Wilderness Act.

For clarity, this section references the NFS lands within the GCW as “National Forest System-GCW” and refers to the privately owned land included within the congressionally mapped wilderness boundary as “private lands within the congressionally mapped GCW.” In accordance with the Wilderness Act of 1964, federally-managed Wilderness areas, like the National Forest System-GCW, are defined as follows:

(c) A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Analysis of wilderness impacts as provided below is not necessary to satisfy the requirements of CEQA because wilderness areas are federally designated. Analysis therefore falls under the scope of NEPA, not CEQA. However, Section 4.2, “Visual Resources,” incorporates wilderness values and relevant policies into the impact analysis for both NEPA and CEQA, and Section 4.4, “Land Use,” contains an evaluation of consistency with Forest Service policies related to wilderness for both NEPA and CEQA.

### 4.3.1 Affected Environment

#### 4.3.1.1 ENVIRONMENTAL SETTING

##### Geography of the Area

The Base-to-Base Gondola is proposed in an area with complex property ownership and designations. The Squaw Valley resort is operated almost entirely on privately owned land. One hundred and ninety-five acres of NFS lands are permitted for use to Squaw Valley, LLC as part of Squaw Valley Ski Area. The majority of Alpine Meadows resort is located on NFS land and is operated under a Special Use Permit (SUP) with the Tahoe National Forest. Between them is the Caldwell property, a private parcel through which the proposed gondola must traverse for the two resorts to be connected. The GCW lies further to the west, and between, the two resorts and is directly west, and adjacent to, the Caldwell property.

The GCW is a wilderness area that consists of approximately 25,256 acres of land, 25,079 of which are managed as part of the National Wilderness Preservation System (NWPS) (U.S. Forest Service 2012); the other 177 acres are privately owned (including the Caldwell property and other scattered parcels). The 1990 *Tahoe National Forest Land and Resource Management Plan* (LRMP) provides the following description of the GCW in its discussion of roadless areas within the TNF:

The Granite Chief Wilderness has a varied, highly scenic landscape of forest, meadows, and glacially exposed granite rock. The Wilderness [GCW] is adjacent to the [north]western watershed boundary of Lake Tahoe and includes Five Lakes Creek and the headwaters of the ... Middle Fork of the American River. The major attractions of this area are its high, rugged, granite cliffs and broad glaciated valleys. Portions of a State [of California] game refuge extend into the area, and the abundance of game and non-game animals attracts large numbers of visitors. (U.S. Forest Service 1990a:3-77)

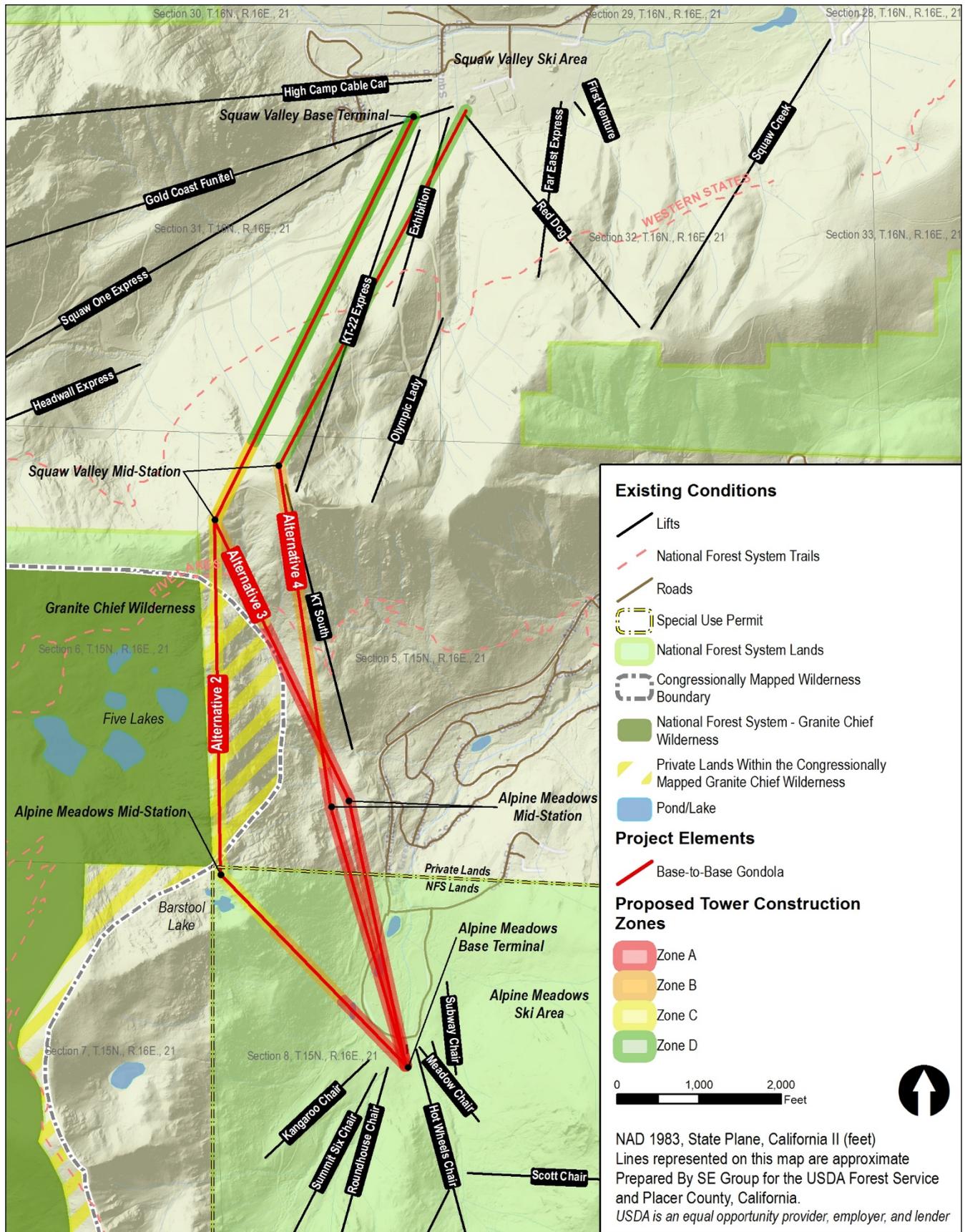
The LRMP describes the GCW in greater detail in its summary of Management Area 080 – Granite Chief:

It [the GCW] extends along the western slope of the Sierra Nevada from Granite Chief Peak to Barker Peak. A small acreage lying east of Twin Peaks is within the Lake Tahoe Basin Management Unit. Elevations range from 5,000 to 9,000 feet. The area includes the heavily used Five Lakes Basin, which is conveniently accessible for day use. There is one other wilderness lake fishery. Most recreation use [of the National Forest System-GCW] occurs adjacent to drainages such as Five Lakes Creek, Picayune Creek, Middle Fork American River, and along the Pacific Crest National Scenic Trail (PCT). The terrain varies from extremely rugged at the upper elevations and along canyon walls to fairly gentle along the valley bottoms. The vegetative cover is sparse on the steep, rocky slopes. Mixed conifer old growth timber is predominant in the valleys. There are 1,507 acres of wetlands. There are 18,705 acres of unsuitable productive timber land. (U.S. Forest Service 1990b:V-417)

Exhibit 4.3-1 depicts private and public land designations within the project vicinity, the National Forest System-GCW, and the private lands within the congressionally mapped GCW. Although the congressionally mapped GCW does overlap with 54.6 acres of the privately owned Caldwell property, the land use management direction and restrictions imposed by the federal Wilderness Act of 1964 apply only to, and have meaning only upon, federal lands. In other words, the land use restrictions of the Wilderness Act of 1964 do not apply to private parcels, including the Caldwell property. Similar to instances where private inholding parcels are surrounded by NFS lands designated and managed as part of the NWPS, the extension of a wilderness boundary onto adjacent private lands does not provide for protection or management of those private lands as wilderness. The Wilderness Act of 1964 explicitly addresses this issue to ensure continued and adequate access and use for private landowners whose land might eventually lie within a congressionally mapped wilderness area.

Each of the project gondola alignments under the action alternatives would be located on private lands owned by Squaw Valley Ski Holdings (SVSH), the Caldwell property, and NFS lands within the Alpine Meadows Ski Area SUP boundary. The gondola alignment associated with Alternative 2 would traverse a portion of the Caldwell property within the congressionally mapped GCW. This tract of land is not afforded the same land use management direction or restrictions that apply to federal lands within congressionally mapped wilderness areas, and development is legally permissible there. In fact, 1,040 feet of a low standard native surface unimproved road runs through a section of these private lands within the congressionally mapped GCW and is frequently used by the property owner; this road occupies approximately 0.25 acre of the 54.6 acres of the Caldwell property that overlap with the congressionally mapped GCW, and the road varies in width from 5 to 20 feet. The gondola alignments for Alternatives 3 and 4 would be located entirely outside both the National Forest System-GCW and private lands within the congressionally mapped GCW. None of the alternatives involve construction on National Forest System-GCW lands. See Chapter 2, “Description of the Alternatives,” for detailed descriptions of each alternative.

Although no construction would occur on National Forest System-GCW lands, the project has been evaluated for indirect impacts on National Forest System-GCW lands managed by the Forest Service. Analysis also includes the introduction of development to the private lands within the congressionally mapped GCW.



**Exhibit 4.3-1 Tower Construction Overview**

## Use of the Area

The project area for the Base-to-Base Gondola consists of privately owned land and NFS lands within the Alpine Meadows SUP boundary. Both ski areas offer classic resort-style skiing and riding experiences, with base areas that provide the necessary amenities to facilitate a high-quality guest experience, although the majority of these amenities are concentrated at the Squaw Valley base area. The privately owned Caldwell property, which separates the two ski resorts, is currently developed with a single family residence, outbuildings and an incomplete, private ski lift (referred to as “KT South”) for the property owner. The property owner has submitted an application to Placer County to develop a 38-home private residential community on the property, known as the White Wolf Subdivision (this project is included in the list of “cumulative effects projects” provided in Table 3-3 of Section 3.5, “Cumulative Effects Analysis Methodology”).

As described above, the land directly west of the project area is the National Forest System-GCW. Wilderness land use restrictions and management are imposed on these lands, but certain low-impact recreational activities are permitted, like hiking and backpacking.

The National Forest System-GCW is served by a trail system that is used by hikers and equestrians for recreation. Limited commercial activity occurs there, in the form of guided outdoor activity managed by local outfitters under permit from the TNF. One outfitter guide, which has been authorized priority use, packs visitors into the area during summer. Most traffic enters the area from the east side via the Five Lakes Trail, where access is easier, and a considerable recreation visitor population base exists; user pressure from the west is comparatively light. The Five Lakes Trail is managed by the Forest Service via an easement with the owner of the Caldwell property. The PCT creates some north-south through traffic as it traverses the National Forest System-GCW. Although some recreationists use the National Forest System-GCW during winter for a remote backcountry skiing or riding experience, the vast majority of the recreational use there occurs during summer.

## Wilderness Characteristics

The GCW meets the criteria for federal designation as a wilderness area and displays the following wilderness characteristics (U.S. Forest Service 2008):

- ▲ **Untrammeled**, which means that wilderness is “essentially unhindered and free from the actions of modern human control and manipulation. This quality is degraded by modern human activities or actions that control or manipulate the components or processes of ecological systems inside the wilderness.”
- ▲ **Natural**, which means that “wilderness ecological systems are substantially free from the effects of modern civilization. This quality is degraded by intended or unintended effects of modern people on the ecological systems inside the wilderness since the area was designated.”
- ▲ **Undeveloped**, which means that “wilderness is an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, where man himself is a visitor who does not remain, and with the imprint of man’s work substantially unnoticeable. This quality is degraded by the presence of structures, installations, habitations, and by the use of motor vehicles, motorized equipment, or mechanical transport that increases people’s ability to occupy or modify the environment.”
- ▲ **Has outstanding opportunities for solitude or a primitive and unconfined type of recreation**, which means that wilderness offers an opportunity for people that “is not directly about visitor experiences per se. This quality is degraded by settings that reduce these opportunities, such as visitor encounters, signs of modern civilizations, recreation facilities, and management restrictions on visitor behavior.”

Although the Wilderness Act of 1964 provided a definition for “wilderness,” it did not establish any wilderness characteristics. The terms defined above were not established until decades after the Wilderness Act of 1964 went into effect, when the Forest Service determined that more in-depth criteria were needed to

conceptualize what it means for certain lands to be better managed as “wilderness.” These characteristics are meant to be necessary qualifiers for any federal lands within a congressionally mapped wilderness area, and they are fully applicable as a basis of analysis for the National Forest System-GCW; however, it is important to note that these wilderness characteristics are not necessarily achieved in totality by all federal lands within congressionally mapped wilderness areas.

Direct and indirect environmental consequences under each of the alternatives for this project are analyzed for their potential to affect these wilderness characteristics.

### 4.3.1.2 REGULATORY SETTING

#### Federal

##### Wilderness Act of 1964

The purpose of the Wilderness Act of 1964 is to preserve and protect the natural condition of certain federal lands in the face of competing demands for use of those lands. The Wilderness Act of 1964 accomplishes this by adding certain federal lands to the NWPS. Far-reaching land use restrictions are imposed on federal lands included in the NWPS. These protections are afforded only to federal lands within congressionally mapped wilderness areas. Under the Wilderness Act of 1964, the restrictions that apply on these lands include (16 United States Code 1131–1136):

- ▲ no commercial enterprises;
- ▲ no permanent roads;
- ▲ no temporary roads;
- ▲ no use of motor vehicles, motorized equipment, or motorboats;
- ▲ no landing of aircraft;
- ▲ no other form of mechanical transport; and
- ▲ no structure or installation.

These restrictions do not apply to private lands within congressionally mapped wilderness areas such as the Caldwell property. In situations where private inholdings are surrounded by wilderness, private rights remain, and the land does not fall under wilderness management or restrictions. The owner of that land is allowed rights to ensure adequate access and use of the land. The federal government can acquire private inholdings within the perimeter of a wilderness area only with concurrence from the owner or if the acquisition is specifically authorized by Congress (16 United States Code 1131–1136). The California Wilderness Act of 1984, discussed below, explicitly addresses this issue.

The Wilderness Act of 1964 itself does not explicitly prohibit the establishment of buffer zones around wilderness areas; however, many subsequent wilderness bills do. The first explicit mention of the prohibition of buffer zones around wilderness areas came in a 1980 public law (Public Law 96-550, Section 105), which states:

Congress does not intend that the designation of wilderness areas... lead to the creation of protective perimeters or buffer zones around each wilderness area. The fact that non-wilderness activities or uses can be seen or heard from areas within the wilderness shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.

##### California Wilderness Act of 1984

The California Wilderness Act of 1984 is a federal law that authorized adding approximately 1,793,890 acres of specific, federally owned lands in California, including about 25,000 acres of the TNF, to the NWPS (Public Law 98-425). As of November 27, 2017, the total acreage of federally owned wilderness areas within the state of California was 5,098,963 acres (Wilderness Connect 2017).

Wilderness areas designated by this act include numerous private inholdings within their congressionally mapped boundaries, including some within the GCW such as a portion of the Caldwell property.

### **Tahoe National Forest Land and Resource Management Plan and Resource Management Plan and Sierra Nevada Forest Plan Amendment**

The LRMP directs land management of the TNF (U.S. Forest Service 1990b). The Sierra Nevada Forest Plan Amendment Record of Decision Final Supplemental EIS (SNFPA) (U.S. Forest Service 2004) amended the LRMP in 2004. The LRMP and SNFPA, collectively referred to as the Forest Plan, established standards and guidelines related to wilderness on the TNF. As part of the analysis conducted for this Final EIS/EIR, these standards and guidelines were applied and evaluated for consistency.

The LRMP aims to “ensure the wise use and protection of TNF resources, fulfill legislative requirements, and address local, Regional, and National issues” (U.S. Forest Service 1990b). It accomplishes these goals with a number of strategies, including:

- ▲ identifying both short- and long-term management objectives,
- ▲ determining land management objectives based on what specific areas are most suited for,
- ▲ providing for multiple uses in an environmentally sound manner,
- ▲ establishing monitoring and evaluation programs to ensure that LRMP direction is being followed, and
- ▲ meeting the requirements of the National Forest Management Act and the Pacific Southwest Regional Guide.

Each of the resources analyzed in the LRMP has a specific management direction established for it. The management direction provided for wilderness areas located in the TNF has two simple priorities (U.S. Forest Service 1990b):

- ▲ manage the GCW to preserve the wilderness character of its living and nonliving components and to provide for compatible human use and enjoyment, and
- ▲ provide quality wilderness experiences for the public.

The Forest Plan subdivides the TNF into numerous management areas, each with a specific management prescription. “Management prescription” refers to the “management area emphasis, management area standards and guidelines, and available management practices” that are specific to a particular area (U.S. Forest Service 1990b). The GCW is in Management Area 080 and is directed by Management Prescription 1 – Wilderness.

Resource management emphasis for Management Area 080 mostly centers on adhering to the land use restrictions established in the Wilderness Act of 1964. Additionally, part of this section suggests “[acquisition of] private inholdings as the opportunities arise” (U.S. Forest Service 1990b).

Management area standards for this management area include a Recreation Opportunity Spectrum (ROS) designation of *primitive* (discussed below), and a Visual Quality Objective of *preservation*.

## **State**

There are no state laws or regulations addressing federal wilderness areas that are relevant to the analysis of the project.

## Local

### Placer County General Plan

The *Placer County General Plan* (Placer County 2013) does not contain any provisions or policies that pertain specifically to federal wilderness areas.

### Squaw Valley General Plan and Land Use Ordinance

The *Squaw Valley General Plan and Land Use Ordinance* does not contain any provisions or policies that pertain specifically to federal wilderness areas.

### Alpine Meadows General Plan

The *Alpine Meadows General Plan* does not contain any provisions or policies that pertain specifically to federal wilderness areas.

## 4.3.1 Analysis Methods

### 4.3.1.1 METHODS AND ASSUMPTIONS

As described in Section 2.2.6, “Resource Protection Measures,” the project incorporates a number of Resource Protection Measures (RPMs) designed to avoid and minimize environmental effects. These RPMs are considered part of the project by the Forest Service and will be conditions of approval of the Placer County Conditional Use Permit (CUP). The text of all RPMs is provided in Appendix B. The potential effects of implementing the action alternatives are analyzed as follows: The effect of the action alternatives was determined, relevant RPMs were applied, and the effectiveness of reducing adverse effects was determined. If additional measures were needed to further reduce effects, they were identified.

### Subjectivity of Wilderness Experience

Although the wilderness characteristics detailed above offer well-defined standards for analyzing impacts on the wilderness experience of users in the National Forest System-GCW, wilderness experience is intrinsically subjective and intangible. Wilderness experience impacts considered substantial to one individual may be considered trivial to another. This is important to note because the analysis of direct and indirect environmental consequences that follows is limited by the subjective nature of the wilderness experience.

### Recreation Opportunity Spectrum

The ROS is a tool used by Forest Service managers to classify different outdoor experiences on NFS lands. The ROS class applied to a particular parcel of NFS land is dependent on the features of that specific parcel. Wherever an ROS class is to be applied, three settings are inventoried: physical setting, social setting, and managerial setting. Certain attributes are analyzed under each setting, and these attributes help Forest Service managers determine which ROS class should be applied to the specific area being managed. The six classes of the ROS are:

- ▲ Primitive,
- ▲ Semi-Primitive Non-Motorized,
- ▲ Semi-Primitive Motorized,
- ▲ Roaded Natural-Appearing,
- ▲ Rural, and
- ▲ Urban.

The ROS class designated for the GCW is *primitive*, which means that the GCW must maintain several pristine qualities to be compliant with the ROS. (The ROS class was designated for the entire GCW, not just the National Forest System-GCW, although the ROS does not apply on private lands.) A few of these are dominance of unmodified and natural-appearing settings, and the absence of roads. To follow Forest Service

management direction, the Base-to-Base Gondola cannot alter these qualities or the overall ROS class designation of *primitive* for the GCW.

### 4.3.1.2 EFFECTS ANALYSIS AND SIGNIFICANCE CRITERIA

#### NEPA Indicators

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by or result from the action alternatives. Under NEPA, impacts should be addressed in proportion to their significance (40 CFR 1502.2[b]), meaning that severe impacts should be described in more detail than less consequential impacts. This is intended to help decision makers and the public focus on the project's key effects. The evaluation of effects considers the magnitude, duration, and significance of the changes. Changes that would improve the existing condition if they occur are noted and considered beneficial, and detrimental impacts are characterized as adverse. Where there would be no change, a "no effect" conclusion is used. The Forest Service has determined that the action alternatives could affect wilderness resources. The following analytical indicators are used to inform the Forest Service's determination of impacts:

- ▲ Discussion of impacts of the alternatives on the wilderness character and characteristics of the National Forest System-GCW. Discuss particularly visual impacts, impacts of increased use, construction activity (helicopters and other machinery), gondola operations, avalanche control, and increased noise on the wilderness experience and values (**Impacts 4.3-1, 4.3-2, 4.3-3, 4.3-4**)
- ▲ Discussion of the private lands with congressional designation, the applicability of Forest Service management (**Impact 4.3-5**)

#### CEQA Criteria

Impacts on wilderness are not addressed in the Placer County CEQA checklist, Appendix G of the State CEQA Guidelines, or the *Placer County General Plan*. In addition, as stated previously, wilderness areas are federally designated. For these reasons, the following analysis does not address CEQA. However, as stated above, Section 4.2, "Visual Resources," incorporates wilderness values and relevant policies into the impact analysis for both NEPA and CEQA, and Section 4.4, "Land Use," contains an evaluation of consistency with Forest Service policies related to wilderness for both NEPA and CEQA.

### 4.3.1.3 ISSUES NOT DISCUSSED FURTHER

All issues related to wilderness are analyzed here.

## 4.3.2 Direct and Indirect Environmental Consequences

Impacts on local wilderness resources for each alternative have been analyzed based on four qualities of wilderness that are called out in the Wilderness Act of 1964 and further described by the Forest Service (U.S. Forest Service 2008). These qualities are "untrammled," "undeveloped," "natural," and "opportunities for solitude or primitive and unconfined recreation."

### 4.3.2.1 ALTERNATIVE 1 – NO ACTION ALTERNATIVE

#### Impact 4.3-1 (Alt. 1): Effects on Untrammled Wilderness

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Alternative 1 – No Action Alternative would result in a continuation of existing conditions. There would be no new construction and therefore no alteration of untrammled wilderness character. There would be **no effect** under NEPA.

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Under Alternative 1 – No Action Alternative, the TNF and Placer County would not authorize construction of a gondola. The outcome would be a continuation of existing conditions, with no new construction and no installation or operation of new facilities. No modern human control or manipulation would be introduced to the National Forest System-GCW, so there would be no alteration of its untrammeled wilderness character.

#### **NEPA Effects Conclusion**

With no alteration of the National Forest System-GCW's untrammeled wilderness character, there would be **no effect** related to this issue.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-2 (Alt. 1): Effects on Undeveloped Wilderness**

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Alternative 1 – No Action Alternative would result in a continuation of existing conditions. There would be no new construction and therefore no alteration of undeveloped wilderness character. There would be **no effect** under NEPA.

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Under Alternative 1 – No Action Alternative, no permanent improvements or human habitation would be introduced to the National Forest System-GCW, so there would be no alteration of its undeveloped wilderness character.

#### **NEPA Effects Conclusion**

With no alteration of the National Forest System-GCW's undeveloped wilderness character, there would be **no effect** related to this issue.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-3 (Alt. 1): Effects on Natural Wilderness**

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Alternative 1 – No Action Alternative would result in a continuation of existing conditions. There would be no new construction and therefore no alteration of natural wilderness character. There would be **no effect** under NEPA.

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Under Alternative 1 – No Action Alternative, none of the effects of modern civilization would be introduced to the National Forest System-GCW's ecological systems, so there would be no alteration of its natural wilderness character.

#### **NEPA Effects Conclusion**

With no alteration of the National Forest System-GCW's natural wilderness character, there would be **no effect** related to this issue.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-4 (Alt. 1): Effects on Opportunities for Solitude or Primitive and Unconfined Recreation**

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Alternative 1 – No Action Alternative would result in a continuation of existing conditions. There would be no new construction and therefore no reduction in opportunities for solitude or primitive and unconfined recreation. There would be **no effect** under NEPA.

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Under Alternative 1 – No Action Alternative, there would be no reduction in opportunities for solitude or primitive and unconfined recreation.

#### **NEPA Effects Conclusion**

With no reduction in opportunities for solitude or primitive and unconfined recreation in the National Forest System-GCW, there would be **no effect** related to this issue.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-5 (Alt. 1): Effects on Potential Wilderness Characteristics on Private Lands within the Congressionally Mapped Granite Chief Wilderness**

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Alternative 1 – No Action Alternative would result in a continuation of existing conditions. There would be no new construction and therefore no development would be introduced to private lands within the congressionally mapped GCW. There would be **no effect** under NEPA.

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Under Alternative 1 – No Action Alternative, no development would be introduced to private lands within the congressionally mapped GCW.

#### **NEPA Effects Conclusion**

With no new development introduced to private lands within the congressionally mapped GCW, there would be **no effect** related to this issue.

#### **Mitigation Measures**

No mitigation measures are required.

## **4.3.2.2 ALTERNATIVE 2**

### **Impact 4.3-1 (Alt. 2): Effects on Untrammled Wilderness**

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Alternative 2 would not introduce any human control or manipulation to National Forest System-GCW lands. The untrammled quality of these lands would not be reduced. There would be **no effect** under NEPA.

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Alternative 2 would not involve any construction or operational activity within the National Forest System-GCW. All construction-related activity and equipment, along with subsequent operation and maintenance of the gondola after its completion, would be precluded within the National Forest System-GCW. Therefore, Alternative 2 would not introduce any human control or manipulation on National Forest System-GCW lands, so the untrammled quality of these lands would not be reduced.

#### **NEPA Effects Conclusion**

Like the No Action Alternative, Alternative 2 would have **no effect** on the untrammled quality of National Forest System-GCW lands.

#### **Mitigation Measures**

No mitigation measures are required.

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## Impact 4.3-2 (Alt. 2): Effects on Undeveloped Wilderness

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Alternative 2 would not introduce any development or permanent improvement to National Forest System-GCW lands. The undeveloped quality of these lands would not be reduced. There would be **no effect** under NEPA.

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Alternative 2 would not involve installation of any infrastructure within the National Forest System-GCW. All infrastructure required to facilitate operation of a gondola would be installed outside the National Forest System-GCW. Therefore, Alternative 2 would not introduce any permanent improvements or human habitation to the National Forest System-GCW, so the undeveloped quality of these lands would not be reduced.

### NEPA Effects Conclusion

Like the No Action Alternative, Alternative 2 would have **no effect** on the undeveloped quality of National Forest System-GCW lands.

### **Mitigation Measures**

No mitigation measures are required.

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## Impact 4.3-3 (Alt. 2): Effects on Natural Wilderness

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While Alternative 2 would not result in the construction or operation of any infrastructure within the National Forest System-GCW, some of the effects of modern civilization would be introduced to these lands. In accordance with Section 4.14, "Wildlife and Aquatics," implementation of Alternative 2 would result in direct and indirect effects to occupied Sierra Nevada yellow-legged frog (SNYLF) habitat and to unutilized potential habitat (not occupied) within designated critical habitat and would temporarily modify or remove primary constituent elements. Although direct habitat disturbance would not occur within the National Forest System-GCW, the wilderness ecological processes occurring within the National Forest System-GCW would be altered to some degree, meaning that the natural quality of these lands would be reduced. This effect would be **minutely adverse** under NEPA.

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Alternative 2 would not result in the construction or operation of any infrastructure within the National Forest System-GCW, nor would it involve any modification of management strategies within those lands. However, Alternative 2 would result in effects (direct or indirect) of modern people on the ecological systems existing within the National Forest System-GCW, in accordance with Section 4.14, "Wildlife and Aquatics," which states, "Implementation of Alternative 2 would result in direct and indirect effects to occupied SNYLF habitat and to habitat with unutilized potential (not occupied) within designated critical habitat and would temporarily modify or remove primary constituent elements: non-breeding aquatic habitat and upland habitat for SNYLF." Although none of the SNYLF habitat, including designated critical habitat, within the National Forest System-GCW would be directly disturbed by project facilities, the ecological processes occurring within the National Forest System-GCW would be altered to some degree by implementation of Alternative 2, and may cease to be substantially free from the effects of modern civilization. For this reason, the natural quality of these lands would be reduced.

### NEPA Effects Conclusion

Alternative 2 would have a **minutely adverse** effect on the natural quality of the National Forest System-GCW because the ecological processes occurring within those lands would be altered by implementation of Alternative 2, and may cease to be substantially free from the effects of modern civilization.

### **Mitigation Measures**

No mitigation measures are required.

### Impact 4.3-4 (Alt. 2): Effects on Opportunities for Solitude or Primitive and Unconfined Recreation

Alternative 2 would result in the construction of gondola infrastructure that would be visible from certain locations within the National Forest System-GCW. The construction phase would also generate noise that would be audible from certain locations within the National Forest System-GCW. Depending on the perception of individual users, this development could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation for these users. Under NEPA, and considering the NEPA indicators, absent RPMs and/or mitigation, direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be **adverse**. Implementation of RPMs SCE-1 and SCE-2 would mitigate these effects.

Alternative 2 would not introduce any human-made structures, construction activities, or management restrictions on visitor behavior to National Forest System-GCW lands. However, construction of the gondola would cause temporary visual impacts on persons within the National Forest System-GCW. These impacts include visibility of helicopters, machinery, and work crews, and audible construction activities, such as rock drilling, blasting, and use of helicopters. Additionally, operation of the gondola may create visual impacts for users of the National Forest System-GCW as cabins (summer only moving of cabins for system maintenance), towers, and wire-rope would be visible from Views 14 and 16, Five Lakes Granite Chief Wilderness and Squaw Saddle, respectively (see Section 4.2, “Visual Resources,” for more information).

Although considerable development can already be seen from View 16 (refer to Appendix D for images of the existing conditions and visual simulations for each view) in the distance at the base area of Alpine Meadows, visibility of additional structures could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation for users of the National Forest System-GCW along the boundary with the project area. In addition, the Squaw Valley and Alpine Meadows mid-stations would improve access to the National Forest System-GCW during the winter, transitional seasons, and periods of inconsistent snow cover.<sup>1</sup> This is because gondola-users would have the potential to disembark at the mid-stations and enter the National Forest System-GCW. This impact would be minimal during the winter as the National Forest System-GCW experiences limited use for backcountry skiing and snowboarding as compared to the summer. However, during the transitional seasons and periods of inconsistent snow cover, it is possible that Alpine Meadows would still be open for public skiing and snowboarding and the gondola would be operational, and that at the same time southern aspect slopes would be dry enough for hikers to use the National Forest System-GCW for day-trips or backpacking. During these parts of the year when the gondola would continue to operate, and southern aspect slopes would be dry enough for hiking at the same time, the Squaw Valley and Alpine Meadows mid-stations would provide additional access points to the National Forest System-GCW. This improved access could increase the likelihood of visitor encounters within the National Forest System-GCW, thereby reducing opportunities for solitude and primitive and unconfined recreation.

Although the impacts related to construction would persist only during the construction phase, visual impacts associated with operation of the gondola would extend throughout each winter, and associated infrastructure would be visible from within the National Forest System-GCW year-round. Gondola cabins would be placed in storage and would not be on the line during summer (except for occasional moving of cabins as part of system maintenance), but towers and wire-rope would still be visible year-round from Views 14 and 16).

At its closest point under this alignment, the gondola would be approximately 75 feet from the National Forest System-GCW. Depending on the perception of individual users, opportunities for solitude or primitive and unconfined recreation from within the National Forest System-GCW could be reduced in the short term

<sup>1</sup> Transitional seasons are defined as the early and late ski seasons, when both winter and summer recreational activities are viable. Inconsistent snow cover is commonly found during the transitional seasons, when ski areas are open for the skiing/snowboarding public and at the same time, the southern aspect slopes are mostly dry or not entirely covered with snow; for example, the northern aspect slopes at both Squaw Valley and Alpine Meadows may have snow cover suitable for skiing/snowboarding, while the southern aspect slopes are dry enough to provide for hiking/backpacking. While periods of inconsistent snow cover are more likely during the early and late season, they may also occur mid-season.

as a result of construction and in the long term because gondola infrastructure would be visible from certain viewpoint locations within the National Forest System-GCW.

Potential impacts to opportunities for solitude or primitive and unconfined recreation from within the National Forest System-GCW would be reduced through the application of RPMs. RPM SCE-1 requires review and approval by the Forest Service of facilities, features, and design plans before any development of above ground structures can occur, which would ensure consistency of Alternative 2 with all relevant plans and policies. RPM SCE-2 requires that structure design, scale, location, orientation, and color of materials meet the Visual Quality Objectives of the project area to reduce potential visual contrast. Both RPMs would reduce the visual effect of the gondola on adjacent portions of the National Forest System-GCW. Appendix B provides a full list of applicable RPMs for this project.

#### **NEPA Effects Conclusion**

Alternative 2 would cause temporary audio and visual impacts on users of the National Forest System-GCW during the construction phase. In addition, visual impacts associated with continued operation of the gondola are possible in the long term. These potential impacts on opportunities for solitude or primitive and unconfined recreation depend on the perception of the development to individual users of the National Forest System-GCW. Under NEPA, and considering the NEPA indicators, absent RPMs and/or mitigation, direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be **adverse**. These effects would be mitigated through implementation of RPMs SCE-1 and SCE-2.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-5 (Alt. 2): Effects on Potential Wilderness Characteristics on Private Lands within the Congressionally Mapped Granite Chief Wilderness**

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Alternative 2 would introduce development to private lands within the congressionally mapped GCW. There would be an **adverse** effect under NEPA.

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Direct impacts from Alternative 2 would occur on private lands within the congressionally mapped GCW. This development on private lands would be legally permissible because land use management direction and restrictions contained in the Wilderness Act of 1964 apply only to NFS lands and cannot be enforced on private lands even if the private lands lie within the congressionally mapped wilderness boundary.

In their existing condition, these private lands within the congressionally mapped GCW largely retain their undeveloped, natural character, with the exception of a short segment of low standard, native surface road. If Alternative 2 were to be approved by the Forest Service and the County, and the gondola were constructed through the private lands within the congressionally mapped GCW, the gondola's presence would reduce the untrammeled, undeveloped, and natural qualities of the area, and there would potentially be fewer opportunities for solitude or primitive and unconfined recreation.

#### **NEPA Effects Conclusion**

Alternative 2 would introduce development inconsistent with potential wilderness characteristics to private lands within the congressionally mapped GCW. There would be an **adverse** effect under NEPA.

#### **Mitigation Measures**

No mitigation measures are required.

### 4.3.2.3 ALTERNATIVE 3

#### Impact 4.3-1 (Alt. 3): Effects on Untrammeled Wilderness

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Alternative 3 would not introduce any human control or manipulation to National Forest System-GCW lands. The untrammeled quality of these lands would not be reduced. There would be **no effect** under NEPA.

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For the same reasons described above for Impact 4.3-1 (Alt. 2) the untrammeled quality of National Forest System-GCW lands would not be reduced by implementation of Alternative 3.

##### NEPA Effects Conclusion

Like Alternative 2, Alternative 3 would have **no effect** on the untrammeled quality of National Forest System-GCW lands.

##### **Mitigation Measures**

No mitigation measures are required.

#### Impact 4.3-2 (Alt. 3): Effects on Undeveloped Wilderness

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Alternative 3 would not introduce any development or permanent improvement to National Forest System-GCW lands. The undeveloped quality of these lands would not be reduced. There would be **no effect** under NEPA.

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For the same reasons described above for Impact 4.3-2 (Alt. 2) the undeveloped quality of National Forest System-GCW lands would not be reduced by implementation of Alternative 3.

##### NEPA Effects Conclusion

Like Alternative 2, Alternative 3 would have **no effect** on the undeveloped quality of National Forest System-GCW lands.

##### **Mitigation Measures**

No mitigation measures are required.

#### Impact 4.3-3 (Alt. 3): Effects on Natural Wilderness

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While Alternative 3 would not result in the construction or operation of any infrastructure within the National Forest System-GCW, some of the effects of modern civilization would be introduced to these lands. In accordance with Section 4.14, "Wildlife and Aquatics," implementation of Alternative 3 would result in direct and indirect effects to occupied SNYLF habitat and to unutilized potential habitat (not occupied) within designated critical habitat and would temporarily modify or remove primary constituent elements. Although direct habitat disturbance would not occur within the National Forest System-GCW, the wilderness ecological processes occurring within the National Forest System-GCW would be altered to some degree, meaning that the natural quality of these lands would be reduced. This effect would be **minorly adverse** under NEPA. Effects to the natural quality of the National Forest System-GCW under Alternative 3 would be less adverse than under Alternative 2 because the gondola alignment under Alternative 3 would be further from the National Forest System-GCW than under Alternative 2.

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Alternative 3 would not result in the construction or operation of any infrastructure within the National Forest System-GCW, nor would it involve any modification of management strategies within those lands. However, Alternative 3 would result in effects (direct or indirect) of modern people on the ecological systems existing within the National Forest System-GCW, in accordance with Section 4.14, "Wildlife and Aquatics," which states, "Implementation of Alternative 3 would result in direct and indirect effects to occupied SNYLF habitat

and to habitat with unutilized potential (not occupied) within critical habitat and would temporarily modify or remove primary constituent elements: non-breeding aquatic habitat and upland habitat for SNYLF.” Although none of the SNYLF habitat, including designated critical habitat, within the National Forest System-GCW would be directly disturbed by project facilities, the ecological processes occurring within the National Forest System-GCW would be altered to some degree by implementation of Alternative 3, and may cease to be substantially free from the effects of modern civilization. For this reason, the natural quality of these lands would be reduced. Effects to the natural quality of the National Forest System-GCW under Alternative 3 would be less adverse than under Alternative 2 because the gondola alignment under Alternative 3 would be further from the National Forest System-GCW than under Alternative 2.

#### **NEPA Effects Conclusion**

Alternative 3 would have a **minorly adverse** effect on the natural quality of the National Forest System-GCW because the ecological processes occurring within those lands would be altered by implementation of Alternative 3, and may cease to be substantially free from the effects of modern civilization.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-4 (Alt. 3): Effects on Opportunities for Solitude or Primitive and Unconfined Recreation**

Alternative 3 would result in the construction of gondola infrastructure that would be visible from certain locations within the National Forest System-GCW. The construction phase would also generate noise that would be audible for certain locations within the National Forest System-GCW. Depending on the perception of individual users, this development could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation for these users. Under NEPA, and considering the NEPA indicators, absent RPMs and/or mitigation, direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be **minorly adverse** (slightly less adverse than Alternative 2). Implementation of RPMs SCE-1 and SCE-2 would mitigate these effects.

Alternative 3 would result in the construction of gondola infrastructure that would be visible from certain locations within the National Forest System-GCW. Under Alternative 3, the impacts would be similar to those previously described for Alternative 2 but lesser in magnitude because of topographical differences and the fact that the alignment for Alternative 3 would be further removed from the National Forest System-GCW. At its closest point under this alignment, the gondola would be approximately 450 feet from the National Forest System-GCW. For further clarity on the spatial differences between the gondola alignments for Alternative 3 and Alternative 2, refer to Section 4.2, “Visual Resources,” along with visual simulations 14 and 16, found in Appendix D.

Compared with Alternative 2, Alternative 3 would result in less of a visitation increase to the National Forest System-GCW, as the location of the Alpine Meadows mid-station is such that gondola-users would not be able to disembark and enter the National Forest System-GCW from there. Gondola-users would only be able to disembark and enter the National Forest System-GCW from the Squaw Valley mid-station, so there would be less of an improvement in access to the National Forest System-GCW associated with Alternative 3 as compared with Alternative 2.

As described for Impact 4.3-4 (Alt. 2) above, RPMs SCE-1 and SCE-2 would reduce potential impacts to opportunities for solitude or primitive and unconfined recreation from within the National Forest System-GCW by reducing the visibility of the gondola from the National Forest System-GCW.

#### **NEPA Effects Conclusion**

Alternative 3 would cause temporary audio and visual impacts on the National Forest System-GCW during the construction phase. In addition, visual impacts associated with continued operation of the gondola are possible in the long term. These potential impacts on opportunities for solitude or primitive and unconfined recreation would be less than those associated with Alternative 2 topography and the fact that the alignment

for Alternative 3 would be further removed from the National Forest System-GCW. Under NEPA, and considering the NEPA indicators, absent RPMs and/or mitigation, direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be **minorly adverse**. These effects would be mitigated through implementation of RPMs SCE-1 and SCE-2.

### Mitigation Measures

No mitigation measures are required.

## Impact 4.3-5 (Alt. 3): Effects on Potential Wilderness Characteristics on Private Lands within the Congressionally Mapped Granite Chief Wilderness

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Alternative 3 would not introduce any development to private lands within the congressionally mapped GCW. There would be **no effect** under NEPA.

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Under Alternative 3, no development would be introduced to private lands within the congressionally mapped GCW.

### NEPA Effects Conclusion

Alternative 3 would not introduce any development to private lands within the congressionally mapped GCW. There would be **no effect** under NEPA.

### Mitigation Measures

No mitigation measures are required.

## 4.3.2.4 ALTERNATIVE 4

### Impact 4.3-1 (Alt. 4): Effects on Untrammled Wilderness

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Alternative 4 would not introduce any human control or manipulation to National Forest System-GCW lands. The untrammled quality of these lands would not be reduced. There would be **no effect** under NEPA.

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For the same reasons described above for Impact 4.3-1 (Alt. 2) the untrammled quality of National Forest System-GCW lands would not be reduced by implementation of Alternative 4.

### NEPA Effects Conclusion

Like Alternative 3, Alternative 4 would have **no effect** on the untrammled quality of National Forest System-GCW lands.

### Mitigation Measures

No mitigation measures are required.

### Impact 4.3-2 (Alt. 4): Effects on Undeveloped Wilderness

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Alternative 4 would not introduce any development or permanent improvement to National Forest System-GCW lands. The undeveloped quality of these lands would not be reduced. There would be **no effect** under NEPA.

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For the same reasons described above for Impact 4.3-2 (Alt. 2) the undeveloped quality of National Forest System-GCW lands would not be reduced by implementation of Alternative 4.

### **NEPA Effects Conclusion**

Like Alternative 3, Alternative 4 would have **no effect** on the undeveloped quality of National Forest System-GCW lands.

### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-3 (Alt. 4): Effects on Natural Wilderness**

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While Alternative 4 would not result in the construction or operation of any infrastructure within the National Forest System-GCW, some of the effects of modern civilization would be introduced to these lands. In accordance with Section 4.14, "Wildlife and Aquatics," implementation of Alternative 4 would result in direct and indirect effects to occupied SNYLF habitat and to unutilized potential habitat (not occupied) within designated critical habitat and would temporarily modify or remove primary constituent elements. Although direct habitat disturbance would not occur within the National Forest System-GCW, the wilderness ecological processes occurring within the National Forest System-GCW would be altered to some degree, meaning that the natural quality of these lands would be reduced. This effect would be **minutely adverse** under NEPA. Effects to the natural quality of the National Forest System-GCW under Alternative 4 would be less adverse than under Alternative 2 or 3 because the gondola alignment under Alternative 4 would be further from the National Forest System-GCW than under Alternative 2 or 3.

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Alternative 4 would not result in the construction or operation of any infrastructure within the National Forest System-GCW, nor would it involve any modification of management strategies within those lands. However, Alternative 4 would result in effects (direct or indirect) of modern people on the ecological systems existing within the National Forest System-GCW, in accordance with Section 4.14, "Wildlife and Aquatics," which states, "Implementation of Alternative 4 would result in direct and indirect effects to occupied SNYLF habitat and to habitat with unutilized potential (not occupied) within critical habitat and would temporarily modify or remove primary constituent elements: non-breeding aquatic habitat and upland habitat for SNYLF." Although none of the SNYLF habitat, including designated critical habitat, within the National Forest System-GCW would be directly disturbed by project facilities, the ecological processes occurring within the National Forest System-GCW would be altered to some degree by implementation of Alternative 4, and may cease to be substantially free from the effects of modern civilization. For this reason, the natural quality of these lands would be reduced. Effects to the natural quality of the National Forest System-GCW under Alternative 4 would be less adverse than under Alternative 2 or 3 because the gondola alignment under Alternative 4 would be further from the National Forest System-GCW than under Alternative 2 or 3.

### **NEPA Effects Conclusion**

Alternative 4 would have a **minutely adverse** effect on the natural quality of the National Forest System-GCW because the ecological processes occurring within those lands would be altered by implementation of Alternative 4, and may cease to be substantially free from the effects of modern civilization.

### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-4 (Alt. 4): Effects on Opportunities for Solitude or Primitive and Unconfined Recreation**

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Alternative 4 would result in the construction of gondola infrastructure that would be visible from certain locations within the National Forest System-GCW. The construction phase would also generate noise that would be audible for certain locations within the National Forest System-GCW. Depending on the perception of individual users, this development could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation for these users. Under NEPA, and considering the NEPA indicators, absent RPMs and/or mitigation, direct and indirect effects related to opportunities for solitude or primitive and

unconfined recreation would be **minorly adverse** (slightly less adverse than Alternatives 2 and 3). Implementation of RPMs SCE-1 and SCE-2 would mitigate these effects.

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Alternative 4 would result in the construction of gondola infrastructure that would be visible from certain locations within the National Forest System-GCW. Under Alternative 4, these impacts would be similar to those previously described for Alternative 2 and Alternative 3 but lesser in magnitude compared to both alternatives. The lesser impact is the result of topographical differences and the fact that the alignment for Alternative 4 would be the furthest removed from the National Forest System-GCW of all the action alternative alignments. At its closest point, under this alignment, the gondola would be approximately 1,100 feet from the National Forest System-GCW. For further clarity on the spatial differences between the gondola alignments for Alternative 4 and Alternative 2, refer to Section 4.2, "Visual Resources," along with visual simulations 14 and 16, found in Appendix D.

The increase in visitation to the National Forest System-GCW associated with Alternative 4 would be identical to that described above for Alternative 3.

As described for Impact 4.3-4 (Alt. 2) above, RPMs SCE-1 and SCE-2 would reduce potential impacts to opportunities for solitude or primitive and unconfined recreation from within the National Forest System-GCW by reducing the visibility of the gondola from the National Forest System-GCW.

#### **NEPA Effects Conclusion**

Alternative 4 would cause temporary audio and visual impacts on the National Forest System-GCW during the construction phase. In addition, visual impacts associated with continued operation of the gondola are possible in the long term. These potential impacts on opportunities for solitude or primitive and unconfined recreation would be less than those associated with Alternative 2 or Alternative 3 because of topographical differences and the fact that the alignment for Alternative 4 would be the furthest removed from the National Forest System-GCW of all the action alternative alignments. Under NEPA, and considering the NEPA indicators, absent RPMs and/or mitigation, direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be **minorly adverse**. These effects would be mitigated through implementation of RPMs SCE-1 and SCE-2.

#### **Mitigation Measures**

No mitigation measures are required.

### **Impact 4.3-5 (Alt. 4): Effects on Potential Wilderness Characteristics on Private Lands within the Congressionally Mapped Granite Chief Wilderness**

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Alternative 4 would not introduce any development to private lands within the congressionally mapped GCW. There would be **no effect** under NEPA.

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Under Alternative 4, no development would be introduced to private lands within the congressionally mapped GCW.

#### **NEPA Effects Conclusion**

Alternative 4 would not introduce any development to private lands within the congressionally mapped GCW. There would be **no effect** under NEPA.

#### **Mitigation Measures**

No mitigation measures are required.

### 4.3.2.5 SUMMARY OF DIRECT AND INDIRECT EFFECTS

Table 4.3-1 provides a summary of the effects determinations for the direct and indirect effects evaluated above for each alternative.

For Alternative 1 – No Action Alternative, there would be no effect for all NEPA indicators.

Addressing the action alternatives, for Impacts 4.3-1 and 4.3-2, there would be no effect for all NEPA indicators, as none of the action alternatives would introduce any human control or manipulation, or development or permanent improvement, to the National Forest System-GCW. There is no meaningful difference in effects across the three action alternatives for both of these impacts.

For Impact 4.3-3, there would be a minorly adverse impact for all action alternatives. While none of the action alternatives would result in the construction or operation of any infrastructure within the National Forest System-GCW (or any modification of management strategies within those lands), the action alternatives would result in the direct or indirect effects of modern people on the ecological systems existing within the National Forest System-GCW. The ecological processes occurring within the National Forest System-GCW would be altered to some degree by implementation of the action alternatives, and may cease to be substantially free from the effects of modern civilization. For this reason, the natural quality of these lands would be reduced, and there would be a minorly adverse effect under NEPA. With regard to the magnitude of effects to the natural quality of the National Forest System-GCW under each action alternative, Alternative 2 would be more adverse than Alternative 3, which would be more adverse than Alternative 4.

For Impact 4.3-4, there would be an adverse effect for Alternative 2 and a minorly adverse effect for Alternatives 3 and 4. These effects would be minimized with implementation of applicable RPMs. Under Alternative 2, the gondola would be located high on the Squaw Valley saddle and approximately 75 feet from the National Forest System-GCW at its closest point, considerably increasing its visibility; gondola-users would be able to enter the National Forest System-GCW from both the Squaw Valley mid-station and the Alpine Meadows mid-station during the winter, transitional seasons, and periods of inconsistent snow cover. In contrast, under Alternative 3, the gondola would be aligned through Catch Valley and approximately 450 feet from the National Forest System-GCW at its closest point, such that natural topography would reduce its visibility from within the National Forest System-GCW as compared to Alternative 2; gondola-users would only be able to enter the National Forest System-GCW from the Squaw Valley mid-station during the winter, transitional seasons, and periods of inconsistent snow cover. Alternative 4 would be located approximately 1,100 feet from the National Forest System-GCW at its closest point, and natural topography would reduce its visibility from within the National Forest System-GCW as compared to Alternative 2; gondola-users would only be able to enter the National Forest System-GCW from the Squaw Valley mid-station during the winter, transitional seasons, and periods of inconsistent snow cover.

For Impact 4.3-5, there would be an adverse effect for Alternative 2 and no effect for Alternatives 3 and 4. Alternative 2 would introduce development to private lands within the congressionally mapped GCW, while Alternatives 3 and 4 would not.

**Table 4.3-1 Summary of Direct and Indirect Effects**

Impact	Applicable Analytical Indicators and Significance Criteria	Alt. 1	Alt. 2	Alt. 3	Alt. 4
4.3-1: Effects on Untrammeled Wilderness	Discussion of impacts of the alternatives on the wilderness character and characteristics of the National Forest System-GCW. Discuss particularly visual impacts, impacts of increased use, construction activity (helicopters and other machinery), gondola operations, avalanche control, and increased noise on the wilderness experience and values	No effect	No effect	No effect Same as for Alternative 2	No effect Same as for Alternatives 2 and 3
4.3-2: Effects on	Discussion of impacts of the alternatives on the wilderness character and characteristics of the National Forest System-	No effect	No effect	No effect Same as for	No effect Same as for

**Table 4.3-1 Summary of Direct and Indirect Effects**

Impact	Applicable Analytical Indicators and Significance Criteria	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Undeveloped Wilderness	GCW. Discuss particularly visual impacts, impacts of increased use, construction activity (helicopters and other machinery), gondola operations, avalanche control, and increased noise on the wilderness experience and values			Alternative 2	Alternatives 2 and 3
4.3-3: Effects on Natural Wilderness	Discussion of impacts of the alternatives on the wilderness character and characteristics of the National Forest System-GCW. Discuss particularly visual impacts, impacts of increased use, construction activity (helicopters and other machinery), gondola operations, avalanche control, and increased noise on the wilderness experience and values	No effect	Minorly adverse	Minorly adverse  Less than under Alternative 2	Minorly adverse  Less than under Alternative 2 or 3
4.3-4: Effects on Opportunities for Solitude or Primitive and Unconfined Recreation	Discussion of impacts of the alternatives on the wilderness character and characteristics of the National Forest System-GCW. Discuss particularly visual impacts, impacts of increased use, construction activity (helicopters and other machinery), gondola operations, avalanche control, and increased noise on the wilderness experience and values	No effect	Adverse	Minorly adverse  Less than under Alternative 2	Minorly adverse  Less than under Alternatives 2 and 3
4.3-5: Effects on Potential Wilderness Characteristics on Private Lands within the Congressionally Designated Granite Chief Wilderness	Discussion of the private lands with congressional designation, the applicability of Forest Service management	No effect	Adverse	No effect  Less than under Alternative 2	No effect  Less than under Alternative 2 and same as Alternative 3

### 4.3.3 Cumulative Effects

#### 4.3.3.1 METHODS AND APPROACH

The list of past, present, and reasonably foreseeable future projects considered in this cumulative analysis is provided in Chapter 3 of this Final EIS/EIR. The spatial scope for this cumulative effects analysis of wilderness includes the ski area operating boundaries of Squaw Valley and Alpine Meadows and surrounding NFS and private lands (including the GCW).

Any present or reasonably foreseeable future projects in the vicinity of the National Forest System-GCW that have the potential to create impacts to its wilderness characteristics are listed below. Potential impacts associated with these projects to the National Forest System-GCW include substantial increases in use, visual impacts for users caused by construction or operation of the gondola, and regulatory changes that alter management direction.

The following is a list of present and reasonably foreseeable future projects that could affect wilderness characteristics within the congressionally mapped GCW.

<b>Project</b>	<b>Potential impacts</b>
Caldwell property (White Wolf) development	Increased use; audio and visual impacts from construction
General development in Olympic Valley	Increased use; audio and visual impacts from construction
General development in Alpine Meadows	Increased use; audio and visual impacts from construction
Alpine Sierra subdivision	Audio/visual impacts from construction
Tahoe National Forest Land and Resource Management Plan	Regulatory changes
Sierra Nevada Forest Plan Amendment	Regulatory changes

### 4.3.3.2 CUMULATIVE IMPACTS

#### **Alternative 1 – No Action Alternative**

Alternative 1 – No Action Alternative would result in a continuation of existing conditions. There would be no direct and indirect impacts and thus by definition no cumulative impacts to wilderness characteristics or values.

#### **Alternative 2**

The only reasonably foreseeable project listed in the table above with the potential to interact with effects related to development in the congressionally mapped GCW is the Caldwell property (i.e., White Wolf) development. The Caldwell property development is not a connected action to Alternative 2 and is instead considered here as an additive action; implementation of the Caldwell property development does not depend on implementation of Alternative 2, and implementation of Alternative 2 does not depend on implementation of the Caldwell property development. Because the gondola would provide additional access points to the National Forest System-GCW via the Squaw Valley and Alpine Meadows mid-stations, cumulative effects associated with the Caldwell property development are possible. These cumulative effects would result from the construction of a private lift for residents of the new homes on the Caldwell property, which is proposed to allow residents and guests of the Caldwell property access to the Alpine Meadows mid-station and the greater gondola line. If Alternative 2 is selected and the private lift is built, the National Forest System-GCW could experience a marginal increase in visitation via this private lift, which would result in the increased likelihood of visitor encounters and a slight reduction in opportunities for solitude or primitive and unconfined recreation. Construction and operation of this private lift would also introduce development inconsistent with potential wilderness characteristics to private lands within the congressionally mapped GCW, resulting in a cumulative adverse effect to these private lands within the congressionally mapped GCW.

Additionally, visibility of the Caldwell property development from within the National Forest System-GCW could reduce opportunities for solitude or primitive and unconfined recreation; however, cumulative reductions in the untrammelled, undeveloped, and natural qualities of the National Forest System-GCW associated with visibility of the Caldwell property development would not occur. Alternative 2 on its own has the potential to result in a reduction to opportunities for solitude or primitive and unconfined recreation, which is characterized as an adverse effect. When added to this adverse effect, the effects associated with the Caldwell property development discussed above (the potential for increased likelihood of visitor encounters and visual impacts for users of the National Forest System-GCW) would result in a cumulative adverse effect to opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Under Alternative 2, the proposed Alpine Meadows mid-station would provide access to the master planned, and as yet unpermitted, Rollers lift (included in the Alpine Meadows Master Development Plan), which is considered cumulatively here as a component of general development in Alpine Meadows. The bottom terminal of the Rollers lift would be located near the Alpine Meadows mid-station (on private land), and it is anticipated that skiers would be able to exit the gondola at this mid-station to access the potential Rollers lift and the terrain it would serve. The proposed gondola, in combination with the Rollers lift, could cause cumulative impacts to the natural wilderness characteristic and reduce opportunities for solitude or primitive and unconfined recreation. The natural wilderness characteristic would be affected if construction and operation of the potential Rollers lift alter the ecological systems within the National Forest System-GCW. Opportunities for solitude or primitive and unconfined recreation would be reduced if the potential Rollers lift is visible from within the National Forest System-GCW and experiential impacts to visitors of the National Forest System-GCW result; however, visitation to the National Forest System-GCW would not increase as a result of installation of the potential Rollers lift because it would not improve access to the National Forest System-GCW.

It is also possible that the Alpine Sierra subdivision, which is currently under environmental review and (if approved and implemented) would result in the construction of additional residential units in the Alpine Meadows area, would bring more people to the project area that may use the Five Lakes Trail and National Forest System-GCW. Approval and implementation of the Alpine Sierra subdivision may increase visitation to the Five Lakes Trail and National Forest System-GCW, but this increased visitation would not be anticipated to be substantial enough to result in a cumulative adverse effect to opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Cumulative effects to the natural wilderness characteristic resulting from effects to SNYLF or SNYLF critical habitat would not be substantial. Given the small amount of critical habitat affected by Alternative 2, the requirement to offset these effects, and the fact that reasonably foreseeable future projects would be required to implement similar measures to comply with existing laws and regulations, Alternative 2 would not make a considerable contribution to any cumulative effect related to SNYLF.

### **Alternative 3**

Cumulative effects associated with this alternative would be similar to those described above for Alternative 2. Under Alternative 3, construction of the gondola would result in the presence of the Alpine Meadows mid-station on the Caldwell property, eliminating the use of a private lift that would connect the Caldwell property to the gondola. However, the National Forest System-GCW could still experience a marginal increase in visitation because residents and guests of the White Wolf project could load onto the gondola via the Alpine Meadows mid-station, travel to the Squaw Valley mid-station, and enter the National Forest System-GCW there. This could result in the increased likelihood of visitor encounters and a slight reduction in opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Additionally, visibility of the White Wolf development from within the National Forest System-GCW could reduce opportunities for solitude or primitive and unconfined recreation, as discussed above under Alternative 2.

Alternative 3 on its own has the potential to result in a reduction to opportunities for solitude or primitive and unconfined recreation, which is characterized as an adverse effect. When added to this adverse effect, the effects associated with the Caldwell property development discussed above (the potential for increased likelihood of visitor encounters and visual impacts for users of the National Forest System-GCW) would result in a cumulative adverse effect to opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Under Alternative 3, cumulative impacts associated with the potential Rollers lift would be lesser in magnitude than those described above for Alternative 2 because the Alpine Meadows mid-station under Alternative 3 would not be in proximity to the potential Rollers lift, as it would be under Alternative 2. As a result, gondola passengers under Alternative 3 would not be able to disembark at the Alpine Meadows mid-

station and directly access the Rollers lift or the terrain beneath it, meaning that any potential increase in skier traffic within the terrain serviced by the Rollers lift would be considerably less under Alternative 3 than under Alternative 2.

It is also possible that the Alpine Sierra subdivision, which is currently under environmental review and (if approved and implemented) would result in the construction of additional residential units in the Alpine Meadows area, would bring more people to the project area that may use the Five Lakes Trail and National Forest System-GCW. Approval and implementation of the Alpine Sierra subdivision may increase visitation to the Five Lakes Trail and National Forest System-GCW, but this increased visitation would not be anticipated to be substantial enough to result in a cumulative adverse effect to opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Cumulative effects to the natural wilderness characteristic resulting from effects to SNYLF or SNYLF critical habitat would not be substantial. Given the small amount of critical habitat affected by Alternative 3, the requirement to offset these effects, and the fact that reasonably foreseeable future projects would be required to implement similar measures to comply with existing laws and regulations, Alternative 3 would not make a considerable contribution to any cumulative effect related to SNYLF. In addition, Alternative 3 would not result in the construction of the Alpine Meadows mid-station in the vicinity of a known SNYLF occurrence (Barstool Lake), and therefore would make less of a contribution to overall cumulative effects than Alternative 2.

#### **Alternative 4**

Cumulative effects associated with Alternative 4 are nearly the same as those described above for Alternative 3, except that there would be less of an increase in likelihood of visitor encounters within the National Forest System-GCW, because the Squaw Valley mid-station under Alternative 4 would be further removed from the National Forest System-GCW (i.e. approximately 950 feet further east than under Alternative 2 or 3). Therefore, reductions in opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW would be lesser than those described above for Alternative 2 or 3. Visibility of the Caldwell property development from within the National Forest System-GCW would still be possible under Alternative 4.

Alternative 4 on its own has the potential to result in a reduction to opportunities for solitude or primitive and unconfined recreation, which is characterized as an adverse effect. When added to this adverse effect, the effects associated with the Caldwell property development discussed above (the potential for an increased likelihood of visitor encounters and visual impacts for users of the National Forest System-GCW) would result in a cumulative adverse effect to opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Under Alternative 4, cumulative impacts associated with the potential Rollers lift would be nearly identical to those described above for Alternative 3. More specifically, under Alternative 4, cumulative impacts associated with the potential Rollers lift would be lesser in magnitude than those described above for Alternative 2 because the Alpine Meadows mid-station under Alternative 4 would not be in proximity to the potential Rollers lift, as it would be under Alternative 2. As a result, gondola passengers under Alternative 4 would not be able to disembark at the Alpine Meadows mid-station and directly access the Rollers lift or the terrain beneath it, meaning that any potential increase in skier traffic within the terrain serviced by the Rollers lift would be considerably less under Alternative 4 than under Alternative 2.

It is also possible that the Alpine Sierra subdivision, which is currently under environmental review and (if approved and implemented) would result in the construction of additional residential units in the Alpine Meadows area, would bring more people to the project area that may use the Five Lakes Trail and National Forest System-GCW. Approval and implementation of the Alpine Sierra subdivision may increase visitation to the Five Lakes Trail and National Forest System-GCW, but this increased visitation would not be anticipated to be substantial enough to result in a cumulative adverse effect to opportunities for solitude or primitive and unconfined recreation within the National Forest System-GCW.

Cumulative effects to the natural wilderness characteristic resulting from effects to SNYLF or SNYLF critical habitat would not be substantial. Given the small amount of critical habitat affected by Alternative 4, the requirement to offset these effects, and the fact that reasonably foreseeable future projects would be required to implement similar measures to comply with existing laws and regulations, Alternative 4 would not make a considerable contribution to any cumulative effect related to SNYLF. In addition, Alternative 4 would not result in the construction of the Alpine Meadows mid-station in the vicinity of a known SNYLF occurrence (Barstool Lake), and therefore would make less of a contribution to overall cumulative effects than Alternative 2.