The Newhall Land And Farming Company and California Department of Fish and Game, "Correspondence and Documentation Relating to the Draft Section 2081 CESA Incidental Take Permit for San Fernando Valley Spineflower - Newhall Land Spineflower Conservation Plan" (May and June 2008)

State of California – The Resources Agency ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

June 9, 2008

Mr. Mark Subbotin
Vice President, Community Development
Newhall Land and Farming
23823 Valencia Blvd.
Valencia, CA 91355

Re: Submittal of the Draft Section 2081 CESA Incidental Take Permit Application for San Fernando Valley Spineflower – Newhall Land Spineflower Conservation Plan

Dear Mr. Subbotin:

The Department of Fish and Game (Department) received your request for a 2081 CESA Incidental Take Permit (ITP) on May 13, 2008. The permit is requested for anticipated take of San Fernando Valley Spineflower (*Chorizanthe parryi var. Fernandina*) resulting from project activities. The Department has determined that the above-referenced application, which concerns the implementation of the Spineflower Conservation Plan within the Newhall Ranch, Entrada and Valencia Commerce Center planning areas, on 14,287 acres of land located in unincorporated Los Angeles County, in the Santa Clara River Valley between the City of Santa Clarita and the Los Angeles/Ventura County jurisdictional boundary, is complete (California Code and Regulations, Title 14, Section 783.5, subsection (b).)

The Department will process and conduct its substantive review of the application in accordance with CESA and related regulations, including section 783.5 of Title 14 of the California Code of Regulations. In general, those regulations direct the Department to complete its review of a proposed ITP under CESA within 120 days of deeming the application complete. Given the complexity of the proposed ITP, and the scope and duration of the requested permits, the Department anticipates its review could take as much as 180 days, if not longer. We will continue to closely coordinate with Newhall Land and Farming (NLF) to move forward as efficiently as possible.

Finally, we note NLF's application acknowledges the Department's related lead agency review under CEQA is ongoing and that we have yet to release a draft environmental analysis for public review (California Code of Regulations, Title 14, section 783.5 subsection (b).) Required CEQA review will play an integral role in the Department's substantive review of the proposed permit. Indeed, as we move forward, the Department may require supplementary information from NLF related to the proposed permits and required environmental review. (Id., section 783.5, subsection (b).)

Please contact Mr. Dennis Bedford, Staff Environmental Scientist, at (562) 342-7172 to coordinate Department receipt of any additional requested information.

Sincerely,

Edmund J. Pert
Regional Manager
South Coast Region

cc: Scott Flint
Habitat Planning and Conservation Branch
Sacramento, CA

Jennifer Deleon
Environmental Permitting and Review Program
Sacramento, CA

Helen Birss, Los Alamitos, CA
Dennis Bedford, Los Alamitos, CA

EP:db

NEWHALL LAND

A LENNAR/LNR COMPANY

May 9, 2008

Dr. Edmund J. Pert, Regional Manager
California Department of Fish and Game
South Coast Region (5)
4949 Viewridge Avenue
San Diego, CA 92123

Re: Submittal of the Draft Section 2081 CESA Incidental Take Permit Application for San Fernando Valley Spineflower - Newhall Land Spineflower Conservation Plan

Dr. Pert:

Newhall Land is pleased to submit the attached Draft Section 2081 Incidental Take Permit Application for San Fernando Valley Spineflower (*Chorizanthe parryi var. Fernandina*). Newhall Land has been in consultation with the Department since 2002 to complete the Newhall Land Spineflower Conservation Plan, the conservation strategy support document for this Application.

On February 14, 2008, Newhall Land submitted the Newhall Land Spineflower Conservation Plan (SCP) for Department review and comment. The SCP forms the basis of the Application and, in addition, is meant to support the Joint EIS-EIR currently being prepared with the Department and Corps. Please use the February 2008 SCP as the reference for the Application review.

It is our understanding that the Department will assess the completeness of this application within 30 days and notify Newhall Land if there is missing or outstanding information. During this review, please do not hesitate in contacting Matt Carpenter (661-255-4259) or myself with any questions or to discuss further.

Newhall Land appreciates your continued cooperation on the Project.

Sincerely,

NEWHALL LAND

Mark Subbotin
Senior Vice President

cc: D. Bedford
H. Birss
J. Mattox
M. Carpenter

Attachment: Draft Section 2081 Incidental Take Permit Application for San Fernando Valley Spineflower, dated May 9, 2008

APPLICATION FOR INCIDENTAL TAKE PERMIT

(Pursuant to 14 CCR Section 783.2 and California Public Resources Code, Section 2081)

Date: May 9, 2008

Project Title: *Newhall Land Spineflower Conservation Plan* (SCP)

1. NAME OF APPLICANT (CCR § 783.2(a)(1))[1]

The Newhall Land and Farming Company ("Newhall Land")
23823 W. Valencia Boulevard
Valencia, CA 91355
(661) 255-4000

Primary Contact: Matt Carpenter, same address as above, (661) 255-4259
Principal Officer: Mark Subbotin, Senior Vice President

Registered Agent for Service of Process:

Mark Subbotin, Senior Vice President
The Newhall Land and Farming Company
23823 W. Valencia Boulevard
Valencia, CA 91355
(661) 255-4000

2. SPECIES NAME AND CESA[2] STATUS (CCR § 783.2(a)(2))

Table 1
CESA Listed Plant and Wildlife Species Observed on the Project Site

Common Name	Scientific Name	Federal Listing	State Listing	Recovery Plan[3]
San Fernando Valley Spineflower	***Chorizanthe parryi*** var. ***fernandina***	Federal Candidate Listing Priority - 6	Endangered	N/A

3. DESCRIPTION OF PROJECT (CCR § 783.2(a)(3))

The planned activity generally consists of the establishment of five spineflower preserves and a spineflower mitigation program to ensure the long-term conservation of spineflower on the

[1] Unless otherwise noted, all references refer to Title 14 of the California Code of Regulations (CCR).
[2] California Endangered Species Act (CESA).
[3] Recovery Plans are discussed in Section 4 of the federal Endangered Species Act (16 U.S.C. § 1533 et seq.). Each plan incorporates site-specific management actions necessary for the conservation and survival of the species.

APPLICATION FOR INCIDENTAL TAKE PERMIT

(Pursuant to 14 CCR Section 783.2 and California Public Resources Code, Section 2081)

Date: May 11, 2008

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The Newhall Land and Farming Company ("Newhall Land")
23823 W. Valencia Boulevard
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Spineflower Conservation Plan (SCP or Project)[4] planning area. It is the companion project to the Newhall Ranch Resource Management and Development Plan (RMDP), which implements various infrastructure improvements and mitigation measures required for the approved Newhall Ranch Specific Plan (Specific Plan). The SCP provides for spineflower management within the RMDP (including the Specific Plan area, the Salt Creek area, and off-site road improvements), the Valencia Commerce Center (VCC), and Entrada spineflower planning areas. The 321-acre VCC and 315-acre Entrada planning areas are adjacent to the larger Specific Plan area and are part of the SCP planning area as they contain land that will be included in the proposed spineflower preserve areas. The SCP (attached as *Appendix A*) addresses overall spineflower preserve design and associated conservation measures for spineflower within all of the applicant's land holdings in the SCP planning area. The spineflower preserve design and associated conservation measures were developed in coordination with the California Department of Fish and Game (CDFG).

The distribution of the spineflower on the applicant's land holdings within the SCP planning area primarily consists of six general population occurrences, with four located within the Specific Plan area and one occurrence each within the VCC and Entrada planning areas. The Specific Plan area includes the Airport Mesa, Grapevine Mesa, Potrero Canyon, and San Martinez Grande Canyon spineflower occurrences.

The Specific Plan requires that Newhall Land establish spineflower preserves, in some cases connected to permanently protected and managed open space on the Specific Plan area (including the River Corridor Special Management Area (SMA), High Country SMA, and Open Area). See *Figure 13* of the SCP (*Appendix A*). The SCP addresses the distribution and abundance of the spineflower within the Project study area, ecological indicators, existing land uses, and proposed land uses and associated impacts. The SCP also provides background information on the plant and its habitat, describes mitigation measures, and recommends establishment of spineflower preserves for the core occurrences of spineflower on SCP planning area lands.

The SCP is designed to develop a management and preservation framework that provides for the long-term persistence of spineflower within the SCP planning area. The long-term conservation of spineflower will be achieved first by establishing a system of spineflower preserves to protect the core occurrences of spineflower within the SCP planning area, and second by implementing management and monitoring within an adaptive management framework to maintain or enhance the protected spineflower occurrences.

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[4] The CEQA "project" also includes the Resource Management and Development Plan for which a separate 2081 permit application is being simultaneously applied and which the CEQA document for the SCP also covers. The RMDP 2081 application is separate because it covers a smaller geographical area than the SCP.

The spineflower preserve design and adaptive management framework proposed in the SCP have been developed based on the following biological goals and objectives which describe the desired conditions of: (1) the spineflower populations, (2) the communities in which the spineflower occurs, and (3) the ecosystem processes known or hypothesized to maintain the spineflower populations and associated communities. Specifically, the SCP seeks to:

Population

Goal 1: Maintain or increase San Fernando Valley Spineflower populations within the preserves.

Objective 1.1

Maintain or increase the distribution of the spineflower within each preserve. Persistence of an endangered plant is enhanced when it occupies a larger geographic area. The more extensive the distribution (i.e., areal extent), the lower the probability that localized events such as wildfire, pest outbreaks, or disease will remove the entire population. Therefore, it is anticipated that maintaining or increasing the distribution of spineflower within each preserve will reduce the probability that foreseen and unforeseen changes in habitat conditions will result in population declines that could threaten persistence throughout the preserve system.

Objective 1.2

Maintain or increase the abundance of the spineflower within each preserve. In general, more abundant populations (i.e., those comprised of more individuals) will have a greater probability of persisting and maintaining genetic diversity necessary to adapt to a changing environment than smaller (less abundant) populations. Existing anthropogenic alterations to the habitat vegetation community within the preserves, including the invasion and spread of exotic plants, may have reduced spineflower abundance. Management of preserves will be designed to remove unnatural barriers to spineflower populations and maintain conditions conducive to persistence of a viable seed bank, in order to increase abundance and enhance long term population persistence. It is important to note that this objective will be reached within the context of an ecological system so that maintaining or increasing spineflower abundance retains ecological functions as near to "natural" as possible rather than compromising other aspects of the ecosystem.

Objective 1.3

Reduce or prevent the increase of identified stressors or anthropogenic factors that negatively impact spineflower individual and population performance. Management of the preserves will be designed to address anthropogenic factors that are known or hypothesized to reduce spineflower individual and population performance, including exotic plants, Argentine ants, trampling or erosion due to trespass, and introduction of unseasonal run-off from off-site locations.

Objective 1.4

Increase understanding of the ecological factors influencing the distribution, abundance, and population persistence of the spineflower in order to inform management and monitoring within the preserves. Many gaps remain in the understanding of the ecology of the spineflower, making it difficult to devise management strategies to prevent its extirpation, and to design efficacious monitoring protocols. Studies, management, and monitoring will be designed and implemented to increase information about the spineflower needed to inform habitat management and increase the effectiveness of monitoring, thus facilitating Objectives 1.1 through 1.3.

Objective 1.5

Plan and conduct small scale experimental management trials to test the effects of proposed on-the-ground management treatments and evaluate effectiveness and spineflower's response. Tools and treatment methods needed to manage spineflower and its habitat, including measures to address excessive competition and implement weed control in occupied habitat, will be tested by implementing small scale experimental trials. The results will be monitored and evaluated, and those measures which produce a favorable spineflower response or otherwise do not result in adverse ecosystem effects, would then be implemented across larger areas over time.

Communities

Goal 2: Maintain or enhance the structure and native species composition of the native communities within the spineflower preserves.

Objective 2.1

Maintain a mosaic of naturally occurring native communities within the preserves. Under this objective, management would be implemented if a 25% or greater change is observed in the absolute cover of existing native plant communities within each preserve, as measured through a combination of remote sensing and aerial mapping at 10-year intervals. Land slated to be included within the spineflower preserves currently supports a mosaic of native plant communities likely reflecting different abiotic conditions (e.g. soils, topography, and microclimate) and disturbance history (time since fire, cultivation, grazing regime, and other land uses). The proposed preserves also include considerable acreage of disturbed land and non-native annual grassland, which can be restored to native vegetation types and perhaps even suitable spineflower habitat. The existing native plant communities differ in native plant species composition, including the presence and relative abundance of spineflower. As a result of their different plant species composition and physiognomy (structure), these communities likely differ in the habitat conditions (e.g. food availability, abiotic conditions) and thus animal species composition. Through a variety of direct and indirect mechanisms, these

plants and animals could be essential to the long term persistence of the spineflower populations (e.g. by maintaining populations of pollinators and/or seed dispersers).

Anthropogenic contributions to global climate change are generally accepted by the scientific community, and these changes over time may influence the type and composition of native vegetation communities as well as other aspects of the natural environment in Southern California.

Objective 2.1(a)

Restore damaged habitats potentially capable of supporting spineflower, within the preserves. Specific areas shall be restored where they appear capable of being potentially occupied by spineflower. A spineflower Habitat Characterization Study will be conducted prior to development. The results of the study will be used to inform the restoration of potentially-suitable spineflower habitat, and maps will be produced showing the areas where such restoration will occur. Area-specific plans will be prepared for each location where restoration will occur and reviewed by the proposed adaptive management working group, and approved by CDFG.

Objective 2.1(b)

Revegetate areas within preserves that have been damaged and do no support native habitats but are unlikely to support spineflower in the future. Damaged habitats with deeper valley soils, for example, may not be suitable for spineflower, but may be capable of supporting other appropriate native habitats and pollinator habitat. These locations will also be identified and plans prepared, similar to Objective 2.1(a) to revegetate them and repair soil damage.

Objective 2.2

Maintain or increase the absolute cover of native plant species by 15% within each preserve every 10 years. Native plant species are important components of natural communities. Maintaining or increasing their relative abundance will facilitate the persistence of native plant populations and the maintenance of native plant communities to which native animals, fungi, and other organisms are adapted.

Because early successional stages characterized by sparse native plant cover provide the ideal habitat for some species, perhaps including the spineflower, increasing *total* native plant cover would be an inappropriate target. Instead, the objective will be to maintain and enhance the natural community structure and species composition, and to increase relative native plant cover—the proportion of the total plant cover that is comprised of native plant species.

Objective 2.3

Maintain or increase the diversity of native plant species within each preserve by at least 15%, as measured within each preserve every 10 years. Maintaining the diversity of native plant species is also important for the persistence of native communities. A function of species

richness and evenness, diversity is often created and maintained by natural ecological processes, including disturbances (e.g. fire) which enhance the diversity of habitat conditions for animals as well as other organisms. Species diversity will be examined at both at the landscape scale (i.e., total diversity), which is a function of community heterogeneity, and at the local or 'plot' scale (i.e., alpha diversity).

Though the abundance and diversity of other organisms including animals and fungi are also important, it can be difficult and costly to monitor all of the different groups of organisms. Native plant species can be used cautiously as indicators of native community structure for purposes of monitoring overall habitat conditions, unless research indicates this assumption is not met in this system.

Objective 2.4

Increase understanding of the ecology of the native communities needed to inform management of the preserves by undertaking the studies specified as part of the adaptive management program. Greater knowledge about the ecology of the natural communities within the preserves will facilitate management to attain the objectives designed to attain the population, community, and ecosystem goals.

Ecosystem

Goal 3: Facilitate the natural ecological processes required to sustain the native populations and communities in the preserves.

Objective 3.1

Maintain or enhance opportunities for migration of plant and animal populations, including spineflower, between potentially isolated preserves. Following development, the preserves will contain remnant patches of native habitat. All else being equal, small areas are less likely to support persisting populations of endangered species than large areas. If extirpations occur, recolonization will be unlikely due to patch isolation. Genetic diversity is often lower in small, isolated habitat patches, due to genetic bottlenecks, inbreeding, and genetic drift.

Providing opportunities for plant and animal populations to migrate between protected areas can increase the probability of species persistence by increasing the size of populations, allowing recolonization following localized extinctions, and increasing genetic exchange among otherwise isolated populations.

Objective 3.2

Maintain the hydrologic conditions within the preserves. Direct and indirect impacts associated with adjacent development, particularly that which occurs upslope of the preserves,

can alter hydrology and thus affect soil moisture and erosion processes. Increase moisture underneath and on the soil surface is predicted to facilitate the invasion and spread of Argentine ants—non-native arthropods that outcompete native ants that could be important spineflower pollinators and/or seed dispersers. Increases in soil moisture can also facilitate populations of native and non-native plants that can outcompete spineflowers, which are poor competitors. Preserves should be managed to prevent alterations to soil moisture by avoiding concentrated run-off, inhibiting drainage, and other factors that could increase soil moisture.

Preserve Description

Within the SCP planning area, the SCP would establish five preserves, four within the Specific Plan area and one additional preserve within a portion of the Entrada SCP planning area. No urban development would be permitted within these preserve areas, and mitigation funds would be provided for management, monitoring and maintenance of spineflower populations within the preserves.[5] Each preserve area would be placed into a permanent conservation easement to ensure long-term protection. The conservation easement will be granted to the CDFG by the applicant and it will contain appropriate restrictions to help ensure that the preserve land remains in a natural condition in perpetuity.

Of the five spineflower preserves, conservation easements totaling 64.40 acres have already been granted to CDFG for portions of two proposed Specific Plan preserve areas (Airport Mesa Preserve Area and Grapevine Mesa Preserve Area). The Grapevine Mesa Preserve Area would be a total of 46.34 acres, which includes 44.10 acres subject to an existing conservation easement, and the Airport Mesa Preserve Area would be a total of 44.98 acres which includes 20.30 acres subject to an existing conservation easement. Two additional spineflower preserves would be dedicated in the Specific Plan area, one west of Potrero Canyon (14.80 acres) and the other west of San Martinez Grande Canyon (34.41 acres). One additional spineflower preserve comprised of 27.02 acres would be dedicated in a portion of the Entrada planning area. As shown in *Table 2*, the five spineflower preserves proposed by the applicant would encompass a total of 167.56 acres within the SCP planning area.

[5] Development within the spineflower preserves could include fencing, signage, limited access facilities, and drainage and erosion control, all of which are necessary for the overall management and monitoring of the spineflower preserves.

Table 2
Spineflower Preserves On Specific Plan and Entrada Areas

Spineflower Preserve Location	Spineflower Preserve Area (in acres)
Specific Plan Area	
Potrero Preserve Area	14.80
San Martinez Grande Preserve Area	34.41
Grapevine Mesa Preserve Area	46.34 (includes 44.10 acre conservation easement)
Airport Mesa Preserve Area	44.98 (includes 20.30 acre conservation easement)
Entrada Preserve Area	27.02
Total	**167.56**

Source: SCP (December 2007)

The spineflower preserve areas have been designed to accommodate expansion of the spineflower population over time. *Table 3* depicts the cumulative acreage (combined data from annual surveys conducted from 2002 through 2007) occupied by spineflower, and the cumulative acreage in the proposed spineflower preserves which is not occupied by spineflower habitat.

Table 3
Cumulative Area Occupied by Spineflower Within Spineflower Preserves (in Acres)

Spineflower Preserve Location	Spineflower Preserve Area (in acres)	Area Occupied by Spineflower (in acres)	Buffer Area Provided (Unoccupied by Spineflower) (in acres)	Expansion Area Provided (Unoccupied by Spineflower) (in acres)
Specific Plan Area				
Potrero Preserve Area	14.80	1.32	10.43	3.05
San Martinez Grande Preserve Area	34.41	2.29	26.17	5.95
Grapevine Mesa Preserve Area	46.34	4.02	37.33	4.99
Airport Mesa Preserve Area	44.98	5.22	18.82	20.94
Entrada Preserve Area	27.02	1.03	18.02	7.97
Total	**167.56**	**13.88**	**110.77**	**42.90**

Source: SCP (December 2007)

Overall, the proposed spineflower preserves encompass approximately 74.4% (12.86 acres) of the 17.28 acres of cumulative mapped acres occupied by spineflower within the Specific Plan area. The proposed spineflower preserve within the Entrada planning area encompasses approximately 48.6% (1.03 acres) of the 2.11 acres of cumulative mapped acres occupied by spineflower on that site. No spineflower preserves are proposed within the VCC planning area because neither avoidance nor minimization are practicable. The VCC project was approved for development of 12 million square feet of industrial buildings in 1990, half of which have been built.

In total, the five proposed spineflower preserves encompass approximately 68.6% (13.88 acres) of the 20.24 acres of cumulative mapped acres occupied by spineflower to be conserved within the larger SCP planning area. *Table 4* reflects the proposed conservation and take, by site within the SCP planning area. The calculations reflected in *Table 4* are based on cumulative spineflower data collected from 2002 through 2007.

Table 4
Conservation and Take of Cumulative (2002 through 2007) Area Occupied by Spineflower Within SCP Planning Area

Project Site	Area Occupied by Spineflower to be Conserved (in acres)	Area Occupied by Spineflower to be Taken (in acres)	Total
Specific Plan Area	12.86 (74.4%)	4.12 (23.9%)[6]	17.28
VCC Planning Area	0 (0%)	0.85 (100%)	0.85
Entrada Planning Area	1.03 (48.6%)	1.09 (51.4%)	2.11
Total	**13.88 (68.6%)**	**6.36 (31.4%)**	**20.24**

Source: SCP (December 2007)

4. PROJECT LOCATION (CCR § 783.2(a)(4))

The SCP planning area is located in an unincorporated portion of the Santa Clara River Valley in northwestern Los Angeles County. The SCP planning area includes the 13,651-acre RMDP (the Specific Plan area, the Salt Creek area and off-site road improvements), and the adjacent 321-acre VCC and 315-acre Entrada planning areas. The SCP planning area is located one-half mile west of I-5 and largely southwest of the junction of I-5 and SR-126. Both the Santa Clara River and SR-126 transect the northern portion of the SCP site. See *Figures 1 and 2* of the SCP (*Appendix A*) for a regional map and a site vicinity map, which illustrates the SCP site in its geographic context.

As illustrated in *Figure 2* of the SCP (*Appendix A*), the SCP planning area is an irregularly-shaped site generally located between the Six Flags Magic Mountain Amusement Park on the east and the Los Angeles/Ventura County line on the west. The City of Santa Clarita is located east of the site just beyond I-5, approximately one mile from the SCP planning area. SR-126 and the Santa Clara River transect the SCP planning area from east to west; a majority of the SCP planning area occurs south of SR-126 and the Santa Clara River; however the VCC planning area is located north of SR-126. Land use types surrounding the planning area locally include: to the north, relatively sparse rural residential uses (the communities of Val Verde and San

[6] A small portion (0.30 acre) of this area lies within what will be designated as open space within the Grapevine Mesa and Potrero areas. While this area does not fall within the impact footprint, it will not be managed or monitored. For purposes of this analysis this area is considered to be taken.

Martinez Grande), landfill uses (Chiquita Canyon), oil and natural gas production uses, urban single family homes and low intensity commercial uses (Castaic corridor), and undeveloped land; on the east, a water reclamation plant (Valencia WRP), a California Highway Patrol station, high intensity commercial/recreational uses (Six Flags Magic Mountain Amusement Park), hotels, restaurants and service stations adjacent to I-5, urban density residential uses (Stevenson Ranch), and undeveloped land; on the south, undeveloped land; and on the west, citrus orchards, oil and natural gas production uses, and vacant undeveloped land.

5. POTENTIAL FOR TAKE (CCR § 783.2(a)(5))

"Take" is defined relative to the California Endangered Species Act (CESA) as hunting, pursuing, catching, capturing, or killing an individual of a listed species, or to attempt any such act (California Fish & Game Code, § 86). "Incidental Take" is take that is incidental to otherwise lawful activities.

There is one CESA-listed species that has been identified as occupying the SCP planning area. It is the San Fernando Valley spineflower. Disturbances associated with the SCP will generally occur as a result of build-out of the Specific Plan area to populations of the spineflower located outside of the proposed spineflower preserves. There is also the possibility of disturbances from non-native, invasive plant and animal species, as well as human trampling, vegetation clearing, changes in hydrology, chemical pollutants and increased fire frequency. (See *Section 6*, below). The potential for, and extent of, take prior to mitigation, is significant, as all of these activities have the potential to disturb individuals and important habitat features. However, Newhall Land will undertake minimization measures to avoid when possible, and mitigate when avoidance is not possible, the risk of the SCP impacting the San Fernando Valley spineflower observed on the SCP planning area. (See *Section 8*, below).

Although implementation of the proposed SCP would result in take of certain isolated spineflower populations, the provisions included in the proposed SCP are sufficient to minimize and fully mitigate this impact. The proposed Project would preserve 68.6% of occupied spineflower habitat on site, including all core population occurrences currently under private ownership except for the population at the VCC planning area, and would protect these populations permanently through conservation easements to CDFG. The benefits provided to preserved populations through the active mitigation, management, and monitoring measures identified below and in the SCP, would ensure that these populations persist, and that funding would be available for enhancement of the species. These mitigation and monitoring measures are discussed in detail in *Section 8* and *Section 9* respectively, below.

6. IMPACTS OF PROPOSED TAKE (CCR § 783.2(a)(6))

Direct impacts represent the physical alteration (i.e., typically habitat degradation or loss) of biological resources that occur on site as a result of Project implementation. Indirect impacts are

those reasonably foreseeable effects caused by Project implementation on remaining or adjacent biological resources.

There will be direct impacts as a result of implementation of the SCP because certain isolated populations of the spineflower will not be located within a spineflower preserve, and build-out of the Specific Plan area could result in a take.

In addition to the direct impacts, there will also be indirect impacts associated with the introduction of non-native, invasive plant and animal species, as well as human trampling, vegetation clearing, changes in hydrology, chemical pollutants, and increased fire frequency.

6.1 San Fernando Valley Spineflower (State Listed Endangered)

Impacts of Proposed Take:

Implementation of the proposed SCP and the issuance of this associated Incidental Take Permit, could result in impacts to spineflower populations within the SCP planning area. When combined in union, spineflower occurrence data collected annually from 2000 through 2007 show a total of 20.24 acres of occupied spineflower habitat within the SCP area. The number of individual spineflower plants onsite varies considerably from year to year, and potential impacts to this species are therefore evaluated in terms of loss of occupied (between 2000 and 2007) habitat, rather than number of individuals.

Under the proposed SCP, 68.6% of the occupied spineflower habitat within the SCP planning area would fall within designated spineflower preserves. A summary of the cumulative mapped acres within each proposed spineflower preserve is included in *Table 4*. Spineflower preserves would be designated in five of the six core occurrence areas; only the VCC planning area occurrence (approximately 4% of total occupied spineflower habitat on site) would not have an associated spineflower preserve.

Under the proposed SCP, a series of spineflower preserves would be established and managed with the intent to ensure the long-term survival of the spineflower, the preservation of native habitats, biodiversity, and the corresponding biological functions and values. The proposed spineflower preserves would include restoration of degraded and/or damaged spineflower habitats vegetation communities and the establishment of site-specific buffers included in the above acreage, aimed at neutralizing and controlling adverse edge effects from adjacent changes in land use. A spineflower preserve manager would be contracted with, and paid for by, Newhall Land, to perform environmental monitoring, oversee the proposed spineflower preserve areas, and ensure the monitoring and management activities outlined in the proposed SCP are carried out. The spineflower preserve manager would be a qualified biologist or land management entity/biological firm, and would be responsible for submitting monitoring reports as required by

the SCP. The spineflower preserve manager would have the authority to stop construction work where such work is damaging, or would damage spineflower preserves.

The proposed system of spineflower preserves would protect 13.88 acres of occupied spineflower habitat within the SCP planning area, and would include buffer areas within the spineflower preserves to attenuate any adverse edge effects from urban development on areas of occupied spineflower habitat within the spineflower preserves. *Table 5* describes the regime of buffer widths that would be implemented with approval of the proposed SCP.

As shown in *Table 5*, implementation of the proposed SCP would create spineflower preserves featuring buffers ranging in width from a minimum of 80 feet to more than 300 feet. The buffer width is measured from the edge of the mapped spineflower polygon to the nearest spineflower preserve boundary. Within the SCP planning area, the vast majority (95.9%) of the preserved occupied area would be buffered by at least 100 feet, while 18.9% would be more than 300 feet from the nearest spineflower preserve edge.

Table 5
Spineflower Buffer Widths, Proposed SCP

Spineflower Preserve	Acres of Occupied Spineflower Area with Buffer of			
Location	**80–100 ft**	**100–200 ft**	**200–300 ft**	**>300 ft**
Airport Mesa Preserve Area	0.13	1.76	2.42	0.91
Grapevine Mesa Preserve Area	0.24	2.42	1.36	0.00
San Martinez Grande Preserve Area	<0.01	0.18	0.41	1.70
Potrero Preserve Area	0.11	0.75	0.46	0.01
Entrada Planning Area	0.09	0.81	0.13	<0.01
Total by Percent	**4.13%**	**42.59%**	**34.39%**	**18.90%**

In addition to the buffers described above, the SCP includes provisions intended to minimize adverse edge effects associated with adjacent urban development on spineflower preserves. These provisions are described in detail in the SCP (attached), and include, but are not limited to:

- Spineflower preserves would be placed into permanent conservation easements to CDFG to ensure protection in perpetuity.
- Fencing and signage intended to discourage unauthorized access would be placed around spineflower preserve areas.
- Installation of best-management practices (BMPs) at the edge of development manufactured slopes, when the spineflower preserve is within 200 feet and down-slope of proposed development.

- Agricultural areas within and immediately adjacent to, spineflower preserve areas would be operated in a manner that would not significantly impair, interfere with, or adversely affect the conservation values of the property.
- Construction documents shall require a pre-construction meeting to perform an environmental education session with the grading contractor/contractor's employees, subcontractors and equipment operators, prior to commencing construction work within 100 feet of the spineflower preserves.
- The spineflower preserve manager would perform weekly monitoring for all construction activities within 200 feet of spineflower preserve areas, and would prepare summary monitoring reports following each site visit. Monitoring reports shall be sent electronically to Newhall Land indicating the status of the site and shall include remedial recommendations when necessary.

Any spineflower populations outside of the proposed spineflower preserves could be taken incidental to build-out of the Specific Plan area.

6.1.1 Indirect Impact, Non-Native, Invasive Plant Species: The introduction of non-native plants into spineflower habitats poses a potential threat to the spineflower. Exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching shade-intolerant plants such as spineflower, thereby depleting the plant's seed bank. The successful invasion of exotic plant species may alter habitats and displace native species over time, leading to extirpation of natives like the spineflower (County of Los Angeles, 2003).

Urban edge effects associated with build-out of the Specific Plan area could negatively impact known spineflower populations because non-native species have been found to invade and become established after repeated burnings, clearing of vegetation for fire protection, or following periods of drought and overgrazing (possible side effects of nearby human habitation). Exotic plants can alter hydrologic and biochemical cycles, disrupt natural fire regimes, and alter soil fertility within and adjacent to urban development. Development could also potentially fragment spineflower populations, which could increase the likelihood of invasion by exotic plants due to the increased "edge," or interface between natural habitats and urban areas.

To address potential impacts associated with the introduction of non-native plants into spineflower preserve areas, the proposed SCP contains restrictions intended to reduce the use of invasive, exotic plants within the Specific Plan area. Plant palettes proposed for use on landscaped slopes, street medians, park sites and other public landscaped and fuel modification zone (FMZ) areas within 100 feet of spineflower preserves, shall be reviewed by the spineflower preserve manager or qualified biologist to ensure that the proposed landscape plants will not naturalize and cause maintenance or vegetation community degradation in the spineflower preserve and buffer areas. Container plants to be installed within public areas within 200 feet of the spineflower preserves, shall be inspected by the spineflower preserve manager or qualified

biologist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or disease shall be rejected. In addition, landscape plants shall not be on the California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants provided in *Appendix B* of the SCP. The current Cal-IPC list can be obtained from the Cal-IPC web site (Cal-IPC 2006, 2007). The SCP is attached.

6.1.2 Indirect Impacts, Non-Native, Invasive Animal Species: An increase in the abundance of domestic cats and dogs from adjacent Specific Plan development areas could indirectly affect the spineflower, because they could reduce populations of native rodents that may act as spineflower seed dispersal agents. In addition, the introduction of Argentine ants could adversely affect spineflower populations because these ants are capable of outcompeting and displacing native ants and other arthropod species that may provide important ecological functions for spineflower, including pollination and seed dispersal, as well as for other native plant species (Holway et al. 2002). Argentine ants are not currently known to occur within the proposed spineflower preserve areas (Jones et al. 2004), but are known to occur at the spring at the mouth of Middle Canyon. Argentine ants, which are attracted to moist habitats, frequently invade disturbed areas and sometimes undisturbed areas adjacent to urban developments; and it is assumed that they will occur within development areas and open space adjacent to the spineflower preserves in the future.

Invasion of native areas by Argentine ants has been shown to reduce or displace native ants and other arthropods, which could function as pollinators and seed dispersers. The extent to which this may directly impact the spineflower has not been studied directly and remains uncertain, but the impact is assumed to be adverse. Studies by Jones et al. (2004) found reduced seed set in spineflower where pollinators were excluded (i.e. through self-pollination), suggesting that open and uninhibited pollination results in the production of considerably more seed. Further discussion on Argentine ants and their potential biological effects is provided in *Appendix C* of the SCP.

To discourage introduction of non-native animal species, and Argentine ants in particular, into spineflower preserve areas, the proposed SCP and associated mitigation measures would require that container plants to be installed within 200 feet of the spineflower preserves be inspected by the spineflower preserve manager for presence of pests, including Argentine ants, and for disease, prior to delivery to the site and also during delivery. Plants with pests, weeds, or disease would be rejected.

Although implemented for public safety and the protection of property and not specifically for management of the spineflower preserves, FMZs located at the interface between natural or spineflower preserve areas and urban development, would also help to reduce impacts associated with non-native animals entering the spineflower preserves, as these zones would serve as a vegetated setback between spineflower preserves and urban areas. Using native or non-invasive

non-native drought-resistant plants to the extent possible in the FMZ would minimize the amount of irrigation required to maintain the vegetation, thus maintaining a xeric habitat in the spineflower preserve areas and buffers that would be less conducive to the establishment of Argentine ant populations.

The goal of management, as it pertains to Argentine ants in particular, is to preclude the invasion of Argentine ants into the spineflower preserves and their associated buffers. Controls will be implemented using an Integrated Pest Management (IPM) approach in accordance with the approved SCP. Argentine ants are sensitive to moisture gradients and are more likely to invade mesic areas and avoid xeric areas. Menke and Holway (2006) noted that the abundance of Argentine ants changes dramatically across soil moisture gradients. They suggest that interception and diversion of urban runoff from naturally xeric areas could restrict invasions by Argentine ants and that "even small reductions in urban runoff may act to limit *L. humile* in areas that are otherwise too dry" (Menke and Holway 2006, p. 374). Thus, a "dry zone" between urban and natural habitats, where there is naturally little moisture, may act a barrier for the ants and inhibit them from invading the natural areas.

The following Project design features and management measures will be implemented to prevent the invasion of Argentine ants in the spineflower preserves:

(1) Providing dry zones between urban development and spineflower populations;

(2) Ensuring that landscape container plants installed within 200 feet of spineflower preserves are ant-free prior to installation;

(3) Maintaining natural hydrologic conditions in the spineflower preserves through project design features. Measures intended to maintain the existing hydrology of the spineflower preserves are discussed in more detail in the subsection, *6.1.5 Indirect Impacts, Changes in Hydrology*, below; and

(4) Using drought-resistant plants in FMZs and minimizing irrigation to the extent feasible.

Although the Project design features described above will help control Argentine ant invasion into the spineflower preserves, there is still a potential for invasions to occur where typical soil moisture increases above about 10% saturation. Invasions by Argentine ants, if they occur, are reversible under appropriate conditions. Menke and Holway (2006) demonstrated that Argentine ant abundance systematically declined in experimentally irrigated areas over a few months once the irrigation was terminated. If soil moisture can be restored to 10% saturation or less, Argentine ant abundances will decrease. In areas where Argentine ant invasions have occurred, soil moisture will be required to be reduced to 10% saturation or less, if feasible.

6.1.3 Indirect Impacts, Vegetation Clearing: When native vegetation is cleared for fire protection along the boundary between proposed development and spineflower populations, or for the creation of roads or trails, non-native plant species may be afforded opportunities to colonize gaps or bare areas. As discussed above, non-native plants often outcompete native species like spineflower.

Under the proposed SCP, no vegetation clearing would be permitted within spineflower preserves, with the exception of limited fuel modification activities, which would be restricted to selective thinning with hand tools to allow the maximum preservation of spineflower populations. No other fuel modification or clearance activities shall be allowed in the spineflower preserve areas. Controlled burning may be allowed in the future within the spineflower preserve areas and buffers, provided that it is based upon a burn plan approved by the Los Angeles County Fire Department and CDFG. Annual maintenance of FMZs, such as the removal of undesirable non-native plants and other activities that ensure the long-term survival of spineflower, will be the responsibility of the spineflower preserve manager. The Homeowner's Association (HOA) will be responsible for any fuel modification that occurs in designated FMZs outside the spineflower preserves.

In addition, spineflower preserve temporary fencing shall be shown on construction plans and installed prior to initiating construction clearing and grubbing activities within 200 feet of spineflower preserves. The spineflower preserve manager or qualified biologist shall monitor fence installation. Clearing for fence installation shall be minimized to what is necessary to install the fence, and where possible shall leave the roots of native plants in place to allow regrowth. As necessary, native vegetation will be restored and weed management shall be performed following fence installation to ensure temporarily cleared native plant areas do not become weed dominated after installation.

6.1.4 Indirect Impacts, Trampling: Human trampling can damage individual spineflower plants, and alter the spineflower ecosystem. Trampling associated with proposed development can create gaps in vegetation and thus allow exotic, non-native plant species to become established, increase soil compaction, and lead to soil erosion. The recovery of spineflower, once trampled, is difficult to predict. Some effects, like soil compaction or erosion, can be difficult, time-consuming, and expensive to reverse.

The proposed SCP would require the installation of fencing and signage intended to prevent trampling of spineflower populations. Fencing shall be installed along the outside edge of the spineflower preserve and buffer areas adjacent to proposed developments, parks, golf courses, or other "active land uses" to prevent unauthorized access. Specific areas that are adequately protected by steep terrain (1.5:1 or steeper) and/or dense vegetation may not require fencing, but would require signage. The determination of the need for fencing in these areas shall be subject to the approval of the spineflower preserve manager or qualified biologist. If monitoring

determines that slope and/or vegetation is not effective at deterring unauthorized access, additional fencing may be required to be added by the spineflower preserve manager or qualified biologist. Fencing is not required in areas bordered by large parcels of conserved natural open space areas, or the Santa Clara River riparian corridor, as installing fencing in these areas would be unnecessary and damaging to existing vegetation and wildlife corridors.

Fencing must extend a minimum of 4 feet above grade and include wood-doweled split rail fencing, exterior grade heavy duty vinyl three-railed fencing, three-strand non-barbed wire, or similar. Fencing installed adjacent to native vegetation communities and natural open space areas will allow for the passage of animals.

Outdoor all-weather signs measuring approximately 12 by 16 inches shall be posted on all spineflower preserve access gates and along spineflower preserve fencing at approximately 800 feet on center, except adjacent to road crossings, where signs will be posted. The placement will take topography into account, emphasizing placement on ridgelines where they will be visible to emergency fire personnel and others. Signs shall state in English and Spanish that the area is a biological preserve that hosts a state-listed endangered and federal candidate plant species and that trespassing is prohibited (in accordance with Newhall Ranch Program EIR Mitigation Measure 4.6-68). Signs shall indicate that fuel modification and management work is not allowed within the spineflower preserve or buffer areas. Signage at trailheads shall describe the spineflower preserve, its purpose, and the applicable rules of conduct within the spineflower preserve. The signage shall state that people not abiding by these rules or who damage the protected species will be subject to prosecution, including fines and/or imprisonment. All signage shall include emergency contact information and shall be reviewed and approved by the spineflower preserve manager or qualified biologist.

6.1.5 Indirect Impacts, Changes in Hydrology: Spineflower can be adversely affected by changes in surface and subsurface hydrologic conditions (changes in irrigation and runoff). Proposed development can remove native vegetation, increase runoff from roads and other paved surfaces, and result in an increase in ornamental landscaping and lawns, which ultimately lead to increased irrigation. These consequences can result in increased erosion and transport of surface matter into known spineflower populations. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants and invasion by Argentine ants. Changed hydrologic conditions can alter seed bank characteristics and modify habitat for ground-dwelling fauna.

The proposed SCP would require that pre-development hydrology conditions be maintained in the spineflower preserve areas. Project-specific design measures will be implemented in order to minimize changes in surface water flows to the spineflower preserve areas. Roadways will be constructed with slopes that convey water flows within the roadway easements and away from spineflower preserve areas. French drains will be installed along the edge of any roadways and

fill slopes that drain toward the spineflower preserve areas. Where manufactured slopes drain toward the spineflower preserve(s), a temporary irrigation system would be installed to the satisfaction of the County in order to establish the vegetation on the slope area(s). This system shall continue only until the slope vegetation is established and self sustaining. Underground utilities will not be located within or through the spineflower preserve areas. Drainage pipes installed within the spineflower preserve areas away from spineflower populations to convey surface or subsurface water away from the populations will be aligned to avoid disruption of natural hydrology within the spineflower preserve areas to the maximum extent practicable. Fencing or other structural type barriers that will be installed to reduce intrusion of people or domestic animals into the spineflower preserve areas shall incorporate footing designs that minimize moisture collection.

Storm drain outfalls from proposed development areas shall only be installed within spineflower preserve areas where necessary to retain pre-construction hydrologic conditions within the spineflower preserves, sustain existing riparian and wetland vegetation communities, and/or allow for the restoration of currently disturbed areas to native riparian/alluvial vegetation communities. Additionally, storm drains would not be permitted to daylight at the bottom of slopes within spineflower preserve areas.

When located in a spineflower preserve area, storm drains must meet the following criteria:

(1) Storm drains must not impact spineflower;

(2) Storm drains may only daylight at the bottom of slopes within spineflower preserve areas; and

(3) Under no circumstances shall storm drains daylight onto steeply sloped areas or other areas that would cause erosion.

Any surface water entering a spineflower preserve area from development areas is required to pass through BMP measures, which will be described in the SWPPP. Storm drain outlets must contain adequate energy dissipaters to prevent downstream erosion and stream channel down-cutting. In addition, storm drain outlets must be designed based on pre- and post-construction hydrologic studies (in accordance with Newhall Ranch Program EIR Mitigation Measure 4.6-69). Storm drains and permanent structural BMP measures shall be designed by a licensed civil engineer. Required BMPs, where applicable, shall be incorporated into the facility design and shall be subject to approval by the spineflower manager or qualified biologist. Long-term maintenance of storm drain BMPs will be the responsibility of the designated maintenance entity.

6.1.6 Indirect Impacts, Chemical Pollutants: The use of chemical pollutants during the development stage and by residents of new development can decrease the number of plant pollinators, increase the existence of non-native plants, and can cause damage and destruction of native plants. Herbicide use can cause fragmentation of known spineflower populations, and

insecticide use can result in pollution drift that can kill known spineflower populations. Fertilizers, especially nitrogen-rich fertilizers, can promote the growth of non-native species, to the detriment of native species not adapted to high nitrogen environments and/or that are unable to compete with non-native species.

The proposed SCP would incorporate buffers around portions of the delineated spineflower preserve(s) not connected to Open Area, the River Corridor SMA or the High Country SMA land use designations; such buffers would serve to further attenuate the effects of any chemical contamination originating in surrounding developing areas. In addition, the SCP contains provisions for erosion control plans, implementation of SCAQMD Rule 403d dust control measures, and an overall Project stormwater pollution prevention plan SWPPP intended to prevent erosion, sedimentation, or runoff caused by development from affecting the spineflower preserve locations. These provisions will be included on construction plans and will be reviewed by the spineflower preserve manager, or a qualified biologist, prior to construction within 200 feet of spineflower preserves. These measures are discussed in detail in the SCP, attached. Any surface water entering a spineflower preserve area from development areas is required to pass through BMP measures, which will be described in the SWPPP.

6.1.7 Indirect Impacts, Increased Fire Frequency: Development near known spineflower populations can increase the possibility of fire because of human-related activities. Arson, or sparks from construction or utility maintenance activities, could lead to an increase in fires that may indirectly threaten the spineflower. The effects of fire on spineflower are not well documented; however, under certain conditions, a fire could damage a percentage of spineflower plants or even destroy an entire population. Direct scorching can create open areas, which become susceptible to non-native plant and animal invasion. Colonization of an area by non-native grasses provides the fuel needed to support and maintain fires, increasing fire frequency, extent, and intensity. Non-native plants tend to recover from fire more quickly than native species, leading to their domination over natives such as the spineflower.

The proposed SCP would permit the use of limited fuel modification activities within the spineflower preserves, which would be restricted to selective thinning with hand tools to allow the maximum preservation of spineflower populations. No other fuel modification or clearance activities shall be allowed in the spineflower preserve areas. All FMZs associated with the adjacent development shall be located outside of proposed spineflower preserves. Controlled burning may be allowed in the future within the spineflower preserve areas and buffers, provided that it is based upon a burn plan approved by the Los Angeles County Fire Department and CDFG. The plant palette authorized for use in FMZs within 100 feet of spineflower preserves shall be reviewed by the spineflower preserve manager or qualified biologist to ensure that the proposed landscape plants will not naturalize and cause maintenance or vegetation community degradation in the spineflower preserve and buffer areas. By locating FMZs at the interface

between spineflower preserve areas and proposed development, these zones would serve the dual purpose of providing fire protection and additional spineflower buffer area.

In the event that a spineflower preserve or a portion of a spineflower preserve burns in a wildfire, the spineflower preserve manager and Newhall Land shall promptly review the site and determine what action, if any, should be taken. The primary anticipated post-fire spineflower preserve management activity involves monitoring the site and controlling annual weeds that may invade burned areas following a fire event, especially when such weeds that were not previously present or not present in similar densities, present an imminent threat to the survival of spineflower populations. If fire-control lines or other forms of bulldozer damage occur in the spineflower preserves, these areas would be repaired and revegetated to approximate pre-burn conditions. An Emergency Fire Response Plan will be prepared (in accordance with Newhall Ranch Program EIR Mitigation Measure 4.6-72) prior to the establishment of the spineflower preserves and approved by CDFG and the Los Angeles County Fire Department.

The same passive successional regeneration methods will be applied to mass-movement, landslide, or slope-sloughing types of events. This measure shall be implemented in conformance with the Spineflower Conservation Plan.

7. WOULD PERMIT JEOPARDIZE THE CONTINUED EXISTENCE OF A SPECIES (CCR § 783.2(a)(7))

For the reasons discussed in detail below, this Project is considered unlikely to jeopardize the further existence of the species and is unlikely to reduce the likelihood of species recovery. While some individuals may be taken and vegetation type will at least be temporarily degraded, the Project's effects on the species' potential for long-term persistence, and any adverse impacts on that potential, are not significant after the application of minimization and mitigation strategies (see *Section 8*, below). What follows is an analysis of how the issuance of the Incidental Take Permit would affect the continued existence of the species described above. The conclusion of no jeopardy considers the species' ability to survive and reproduce, and any adverse impacts on those abilities in light of known population trends, known threats to the species and reasonably foreseeable impacts on the species from other related projects and activities.

For corresponding mitigation measures please see *Section 8*, below.

7.1 San Fernando Valley Spineflower (State Listed Endangered)

Issuance of the Incidental Take Permit would not jeopardize the continued existence of the San Fernando Valley spineflower for the following reasons:

7.1.1 Ability to Survive and Reproduce: Although population estimates and trends are listed below, counts of individuals of an annual plant species such as the San Fernando Valley spineflower are known to vary considerably from year to year, sometimes not germinating at all if conditions are too dry. Therefore, the number of individuals reported may be as much a reflection of rainfall as it is population size (USFWS 2006).

7.1.2 Adverse Impacts of Taking On Ability to Survive and Reproduce in Light of:

(A) Known Population Trends

This species of spineflower was thought to be extinct until it was rediscovered in 1999 in the Ahmanson Ranch area of Ventura County and in 2000 in the Specific Plan area of Los Angeles County (USFWS 2006).

In 2002, 2003, 2004, 2005, 2006, and 2007 surveys for the spineflower were conducted throughout the Specific Plan area and the Entrada and VCC planning areas. Results from 2002 surveys included population estimates for the senescent remains of spineflower plants that were observed during the 2002 surveys (but which germinated prior to 2002). Pre-2002 plants were estimated to include 3,153,194 individuals, while plants that germinated in 2002 were estimated to include 7,814 individuals. In 2003, surveys estimated populations of spineflower totaling 5,947,120 individuals. In 2004, the total population of spineflower at Newhall Land was estimated to be 558,388 individuals. In 2005, the total population of spineflower at Newhall Land was estimated to be 7,391,813 individuals. In 2006, the total population of spineflower at Newhall Land was estimated to be 1,773,496 individuals. In 2007, the total population of spineflower at Newhall Land was estimated to be 760 individuals.

As mentioned above, the yearly fluctuations in spineflower numbers suggest that climatic conditions relate to spineflower abundance. The estimated number of spineflower was dramatically lower in 2002, 2004, and 2007, compared to 2003 and 2005. Years 2002, 2004, and 2007 experienced below-average rainfall, but in 2003, rainfall was considered normal, according to the Western Regional Climate Center. Winter 2004/Spring 2005 rainfall was considered to be above normal; in winter 2005/spring 2006, rainfall was slightly below average but not as low as it was in 2002, 2004, and 2007, according to the Western Regional Climate Center (WRCC 2007).

(B) Known Threats to the Species

The largest and most significant known threat to the San Fernando Valley spineflower is the destruction, modification, or curtailment of its vegetation type or range.

The introduction of non-native plants into spineflower vegetation communities poses a potential threat to the spineflower. Exotic plants compete for light, water, and nutrients, and can create a

thatch that blocks sunlight from reaching shade-intolerant plants such as spineflower, thereby depleting the plant's seed bank. The successful invasion of exotic plant species may alter vegetation communities and displace native species over time, leading to extirpation of native species like the spineflower (County of Los Angeles, 2003).

Non-native, invasive animal species also pose a potential threat to the spineflower. Domestic cats and dogs could pose an indirect threat to the spineflower because they could reduce populations of native rodents that may act as spineflower seed dispersal agents. In addition, the introduction of Argentine ants could adversely affect spineflower populations because these ants are capable of outcompeting and displacing native ants and other arthropod species that may provide important ecological functions for spineflower, including pollination and seed dispersal.

When native vegetation is cleared for fire protection along the boundary between proposed development and spineflower populations, or for the creation of roads or trails, non-native plant species may be afforded opportunities to colonize gaps or bare areas. As discussed above, non-native plants often outcompete native species like spineflower. The clearing of native vegetation for fire protection allows non-native plants to colonize gaps or bare areas.

Human trampling also poses a potential threat because it can damage individual spineflower plants, and alter the spineflower ecosystem. Trampling associated with proposed development can create gaps in vegetation and thus allow exotic, non-native plant species to become established, increase soil compaction, and lead to soil erosion.

The spineflower can also be affected by changes in surface and subsurface hydrologic conditions. Proposed development can remove native vegetation, increase runoff from roads and other paved surfaces, and/or result in an increase in ornamental landscaping and lawns, which ultimately lead to increased irrigation. These consequences can result in increased erosion and transport of surface matter into known spineflower populations. Altered erosion, increased surface water flows, and underground seepage can allow for the establishment of non-native plants and invasion by Argentine ants. Changed hydrologic conditions may alter seed bank characteristics and modify habitat for ground-dwelling fauna.

The use of chemical pollutants during the development stage and by residents of new development can decrease the number of plant pollinators, increase the existence of non-native plants, and can cause damage and destruction of native plants. Herbicide use can cause fragmentation of known spineflower populations, and insecticide use can result in pollution drift that can kill known spineflower populations. Fertilizers, especially nitrogen-rich fertilizers, can promote the growth of non-native species, to the detriment of native species not adapted to high nitrogen environments and/or that are unable to compete with non-native species.

Fire may also pose a threat to the spineflower. The effects of fire on spineflower are not well documented; however, under certain conditions, a fire could damage a large percentage of

spineflower plants or even destroy an entire population. In addition, direct scorching can create open areas, which become susceptible to non-native plant and animal invasion. Colonization of an area by non-native grasses provides additional fuel to ignite and maintain fires, increasing fire frequency, extent, and intensity. Non-native plants tend to recover from fire more quickly than native species, leading to their outcompeting natives such as the spineflower.

(C) Reasonably Foreseeable Impacts from Other Related Projects and Activities

One other project near the SCP study area is Legacy Village, located immediately adjacent to the southern Specific Plan boundary. No spineflower populations have been identified on the Legacy Village project site based on surveys between 2003 and 2007.

Beside the Newhall Land property covered in this application, the only other known San Fernando Valley spineflower population in southern California is located on Ahmanson Ranch in southeastern Ventura County. In 2003, the Ahmanson Ranch property was acquired by the State of California through the Wildlife Conservation Board and transferred to the Santa Monica Mountains Conservancy (Conservancy) for the purposes of wildlife habitat preservation, corridor protection, restoration and management, wildlife-oriented education and research, and for compatible public uses, consistent with wildlife habitat preservation and protection of sensitive biological resources. Based on this acquisition, in 2007, the USFWS acknowledged that threats to the spineflower "from habitat destruction or modification are less than they were four years ago [2003], because one of the two populations (Ahmanson Ranch) is in permanent, public ownership and is being managed by an agency that is working to conserve the plant" (72 Fed.Reg. 69034, 69082). However, there is currently no management or monitoring effort underway to ensure the protection and long-term survival of the spineflower populations located at Ahmanson Ranch. Furthermore, there is no funding available to provide such efforts. In the absence of active management and monitoring efforts, impacts could occur to the Ahmanson Ranch spineflower populations that include trampling, increased risk of fire, and other human-related effects that could result from trespassing.

See *Section 8*, below, for further mitigation measures related to these threats and reasonably foreseeable impacts discussed above.

With implementation of these measures, issuance of the Incidental Take Permit would not jeopardize the continued existence of the species.

8. MEASURES TO MINIMIZE AND MITIGATE THE IMPACTS (CCR § 783.2(a) (8))

This minimization and mitigation program is built around conceptual issues for the San Fernando Valley spineflower, as well as a conservation-management approach. Measures will be implemented to minimize both habitat degradation and population impacts to the listed species.

For areas that are impacted, mitigation measures will be applied as discussed below. A detailed discussion of the specific management activities planned/permitted for each spineflower preserve is included in the SCP (*Appendix A*).

"Previously Incorporated Measures" are those measures that were adopted by the County of Los Angeles ("the County") for potential impacts to biological resources as part of the Specific Plan. These mitigation measures are found in the certified Specific Plan Program EIR and the adopted Resource Monitoring Plan (RMP) for the Specific Plan (May 2003). These measures would be implemented during construction and operation of the SCP, including the VCC and Entrada areas, and are included below as they relate to addressing Project-specific impacts to biological resources.

To further avoid and minimize potential impacts to biological resources, additional mitigation measures are recommended below. These measures are consistent with, and supplement, the previously incorporated measures included in the Specific Plan Program EIR and RMP.

The mitigation measures are also found in *Section 9.0* of the attached SCP (*Appendix A*).

8.1 Previously Incorporated Measures

MIT-1: In order to facilitate the conservation of the spineflower on the Specific Plan area, the applicant, or its designee, shall, concurrent with Specific Plan approval, agree to the identified special study areas shown in *Figure 13*, Spineflower Mitigation Area Overlay. The applicant, or its designee, further acknowledges that, within and around the Spineflower Mitigation Area Overlay (See *Figure 13* of the SCP), changes will likely occur to Specific Plan footprints, roadway alignments, and the limits, patterns and techniques associated with Project-specific grading at the subdivision map level. The applicant, or its designee, shall design subdivision maps that are responsive to the characteristics of the spineflower and all other endangered plant species that may be found on the Specific Plan area.

Previously Incorporated Measures: Spineflower Preserves.

MIT-2: Direct impacts to known spineflower populations within the Specific Plan area shall be avoided or minimized through the establishment of one or more on-site spineflower preserves that are configured to ensure the continued existence of the species in perpetuity. Spineflower preserves shall be delineated in consultation with the County and CDFG, and will likely require changes and revisions to Specific Plan footprints for lands within and around the Spineflower Mitigation Area Overlay (See *Figure 13* of the SCP).

Delineation of the boundaries of Specific Plan spineflower preserves for the entire Specific Plan area shall be completed in conjunction with approval of the first Specific Plan subdivision map filed in either the Mesas Village (now known as Mission Village), or that portion of Riverwood

Village (now known as Homestead Village) in which the San Martinez Grande spineflower population occurs.

A sufficient number of known spineflower populations shall be included within the Specific Plan spineflower preserves in order to ensure the continued existence of the species in perpetuity. The conservation of known spineflower populations shall be established in consultation with the County and CDFG, and as consistent with standards governing issuance of this Incidental Take Permit for spineflower, pursuant to California Fish and Game Code, Section 2081(b).

In addition to conservation of known populations, spineflower shall be introduced into appropriate vegetation communities and soils in the Specific Plan spineflower preserves. The creation of introduced populations shall require seed collection and/or top soil at impacted spineflower locations and nursery propagation to increase seed and sowing of seed. The seed collection activities, and the maintenance of the bulk seed repository, shall be approved in advance by the County and CDFG.

Once the boundaries of the Specific Plan spineflower preserves are delineated, the Project applicant, or its designee, shall be responsible for conducting a spineflower population census within the Specific Plan spineflower preserves annually for 10 years. The yearly spineflower population census documentation shall be submitted to the County and CDFG, and maintained by the Project applicant, or its designee. If there are any persistent population declines documented in the annual population census reports, the Project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. In no event, however, shall Project-related activities jeopardize the continued existence of the spineflower populations within the Specific Plan area. If a persistent population decline is documented, such as a trend in steady population decline that persists for a period of 5 consecutive years, or a substantial drop in population is detected over a 10-year period, spineflower may be introduced in consultation with CDFG in appropriate vegetation communities and soils in the Specific Plan spineflower preserves, utilizing the bulk spineflower seed repository, together with other required management activity or activities. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County and CDFG. The Project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, including monitoring, as approved by the County and CDFG.

Annual viability reports shall be submitted to the County and CDFG for 10 years following delineation of the Specific Plan spineflower preserves to ensure long-term documentation of the spineflower population status within the Specific Plan spineflower preserves. In the event annual status reports indicate the spineflower population within the Specific Plan spineflower preserves is not stable and viable 10 years following delineation of the spineflower preserves, the Project

applicant, or its designee, shall continue to submit annual status reports to the County and CDFG for a period of no less than an additional 5 years.

Previously Incorporated Measures: Connectivity, Spineflower Preserve Design, and Buffers.

MIT-3: Indirect impacts associated with the interface between the preserved spineflower populations and planned development within the Specific Plan area shall be avoided or minimized by establishing open space connections with Open Area, River Corridor SMA, or High Country SMA land use designations. In addition, buffers (i.e., setbacks from developed, landscaped or other use areas) shall be established around portions of the delineated spineflower preserves not connected to Open Area, the River Corridor SMA or the High Country SMA land use designations. The open space connections and buffer configurations shall take into account local hydrology, soils, existing and proposed adjacent land uses, the presence of non-native invasive plant species, and seed dispersal vectors.

Open space connections shall be configured such that the spineflower preserves are connected to Open Area, River Corridor SMA, or High Country SMA land use designations to the extent practicable. Open space connections shall be of adequate size and configuration to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserves. Open space connections for the spineflower preserves shall be configured in consultation with the County and CDFG. Open space connections for the spineflower preserves shall be established for the entire Specific Plan area in conjunction with approval of the first Specific Plan subdivision map filed in either the Mesa Village (now known as Mission Village), or that portion of the Riverwood Village (now known as Homestead Village) in which the San Martinez Grande spineflower location occurs.

For spineflower preserves and/or those portions of spineflower preserves not connected to Open Area, River Corridor SMA, or High Country SMA land use designations, buffers shall be established at variable distances of between 80 and 200 feet from the edge of development to achieve a moderate to high likelihood of effectiveness in avoiding or minimizing indirect impacts (e.g., invasive plants, increased fire frequency, trampling, chemicals, etc.) to the spineflower preserves. The buffer size/configuration shall be guided by the analysis set forth in the "Review of Potential Edge Effects on the San Fernando Valley Spineflower," prepared by Conservation Biology Institute, January 19, 2000 (CBI 2000), and other sources of scientific information and analysis, which are available at the time the spineflower preserves and buffers are established. Buffers for the spineflower preserves shall be configured in consultation with the County and CDFG for the entire Specific Plan area. Buffers for the spineflower preserves shall be established in conjunction with approval of the first Specific Plan subdivision map filed in either the Mesa Village (now known as Mission Village), or that portion of the Riverwood

Village (now known as Homestead Village in which the San Martinez Grande spineflower location occurs.

Roadways and road rights-of-way shall not be constructed in any spineflower preserves and buffer locations on the Specific Plan area unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Specific Plan subdivision map(s) process. No other development or disturbance of native vegetation communities shall be allowed within the spineflower preserves or buffers.

The Project applicant, or its designee, shall be responsible for revegetating open space connections and buffer areas of the Specific Plan spineflower preserves to mitigate temporary impacts due to grading that will occur within portions of those open space connections and buffer areas. The impacted areas shall be reseeded with a native seed mix to prevent erosion, reduce the potential for invasive non-native plants, and maintain functioning vegetation communities within the buffer area. Revegetation seed mix shall be reviewed and approved by the County and CDFG.

Previously Incorporated Measures: Spineflower Preserve Protection/Fencing.

MIT-4: To protect the preserved spineflower populations within the Specific Plan area, and to further reduce potential direct impacts to such populations due to unrestricted access, the Project applicant, or its designee, shall erect and maintain temporary orange fencing and prohibitive signage around the Specific Plan spineflower preserves, open space connections and buffer areas, which are adjacent to areas impacted by proposed development prior to and during all phases of construction. The areas behind the temporary fencing shall not be used for the storage of any equipment, materials, construction debris or anything associated with construction activities.

Following the final phase of construction of any Specific Plan subdivision map adjacent to the Specific Plan spineflower preserves, the Project applicant, or its designee, shall install and maintain permanent fencing along the subdivision tract bordering the spineflower preserves. Permanent signage shall be installed on the fencing along the preservation boundary to indicate that the fenced area is a biological preserve, which contains protected species and habitat, that access is restricted, and that trespassing and fuel modification are prohibited within the area. The permanent fencing shall be designed to allow wildlife movement.

The plans and specifications for the permanent fencing and signage shall be approved by the County and CDFG prior to the final phase of construction of any Specific Plan subdivision map adjacent to a Specific Plan spineflower preserve.

Previously Incorporated Measures: Spineflower Preserve Protection/Hydrologic Alterations.

MIT-5: Indirect impacts resulting from changes to hydrology (i.e., increased water runoff from surrounding development) at the interface between spineflower preserves and planned development within the Specific Plan area shall be avoided or mitigated to below a level of significance.

Achievement of this standard will be met through the documented demonstration by the Project applicant, or its designee, that the storm drain system achieves pre-development hydrologic conditions for the Specific Plan spineflower preserves. To document such a condition, the Project applicant, or its designee, shall prepare a study of the pre- and post-development hydrology, in conjunction with Specific Plan subdivision maps adjacent to spineflower preserves. The study shall be used in the design and engineering of a storm drain system that achieves pre-development hydrologic conditions. The study must conclude that proposed grade changes in development areas beyond the buffers will maintain pre-development hydrology conditions within the spineflower preserves. The study shall be approved by the Planning Director of the County, and the resulting conditions confirmed by CDFG.

The storm drain system for Specific Plan subdivision maps adjacent to any spineflower preserves must be approved by the County prior to the initiation of any grading activities.

Previously Incorporated Measures: Road Construction Measures.

MIT-6: Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure 1, direct impacts to known spineflower populations within the Specific Plan area associated with proposed road construction or modifications to existing roadways shall be further assessed for proposed road construction at the Specific Plan subdivision map level, in conjunction with the tiered EIR required for each subdivision map. To avoid or substantially lessen direct impacts to known spineflower populations, Specific Plan roadways shall be redesigned or realigned, to the extent practicable, to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures 2 and 3. The Project applicant, or its designee, acknowledges that the road redesign and realignment is a feasible means to avoid or substantially lessen potentially significant impacts on the currently documented Newhall Land SCP Project spineflower populations. Road redesign or alignments to be considered at the subdivision map level include:

- Commerce Center Drive;
- Magic Mountain Parkway;
- Chiquito Canyon Road;
- Long Canyon Road;

- San Martinez Grande Road;
- Potrero Valley Road;
- Valencia Boulevard; and
- Any other or additional roadways that have the potential to significantly impact known spineflower populations within the Specific Plan area.

Roadways and road rights-of-way shall not be constructed in any spineflower preserves and buffer locations on the Specific Plan area, unless constructing the road(s) in such location is found to be the environmentally superior alternative in subsequently required tiered EIRs in connection with the Specific Plan subdivision map(s) process.

Previously Incorporated Measures: Engineering, Design and Grading Modifications.

MIT-7: Consistent with the Spineflower Mitigation Area Overlay reflected in Mitigation Measure 1, direct impacts to known spineflower populations within the Specific Plan area shall be further assessed at the Specific Plan subdivision map level, in conjunction with the required tiered EIR process. To avoid or substantially lessen impacts to known spineflower populations at the subdivision map level, the Project applicant, or its designee, may be required to adjust Specific Plan development footprints, roadway alignments, and the limits, patterns and techniques associated with Project-specific grading to achieve the spineflower preserve and connectivity/preserve design/buffer standards set forth in Mitigation Measures 2 and 3 for all future Specific Plan subdivision maps that encompass identified spineflower populations.

Previously Incorporated Measures: Fire Management Plan.

MIT-8: A Fire Management Plan shall be developed to avoid and minimize direct and indirect impacts to the spineflower, in accordance with the adopted RMP, to protect and manage the Specific Plan spineflower preserves and buffers.

The Fire Management Plan shall be completed by the Project applicant, or its designee, in conjunction with approval of any Specific Plan subdivision map adjacent to a spineflower preserve.

The final Fire Management Plan shall be approved by the Los Angeles County Fire Department through the processing of subdivision maps.

Under the final Fire Management Plan, limited fuel modification activities within the spineflower preserves will be restricted to selective thinning with hand tools to allow the maximum preservation of spineflower populations within the Specific Plan area. No other fuel modification or clearance activities shall be allowed in the Specific Plan spineflower preserves. Controlled burning may be allowed in the future within the Specific Plan spineflower preserves

and buffers, provided that it is based upon a burn plan approved by the Los Angeles County Fire Department and CDFG. The Project applicant, or its designee, shall also be responsible for annual maintenance of FMZs, including, but not limited to, removal of undesirable non-native plants, revegetation with acceptable locally indigenous plants and clearing of trash and other debris in accordance with the Los Angeles County Fire Department.

Previously Incorporated Measures: Water Flow Diversion and Management.

MIT-9: At the subdivision map level, the Project applicant, or its designee, shall design and implement Project-specific design measures to minimize changes in surface water flows to the Specific Plan spineflower preserves for all Specific Plan subdivision maps adjacent to the spineflower preserves and buffers, and avoid and minimize indirect impacts to the spineflower. Prior to issuance of a grading permit for each such subdivision map, the Project applicant, or its designee, shall submit for approval to the County plans and specifications that ensure implementation of the following design measures:

(1) During construction activities, drainage ditches, piping or other approaches will be put in place to convey excess stormwater and other surface water flows away from the Specific Plan spineflower preserves and connectivity/preserve design/buffers, identified in Mitigation Measures 2 and 3.

(2) Final grading and drainage design will be developed that does not change the current surface and subsurface hydrologic conditions within the spineflower preserves.

(3) French drains will be installed along the edge of any roadways and fill slopes that drain toward the spineflower preserves.

(4) Roadways will be constructed with slopes that convey water flows within the roadway easements and away from the spineflower preserves.

(5) Where manufactured slopes drain toward the spineflower preserves, a temporary irrigation system would be installed to the satisfaction of the County in order to establish the vegetation on the slope area(s). This system shall continue only until the slope vegetation is established and self sustaining.

(6) Underground utilities will not be located within or through the spineflower preserves. Drainage pipes installed within the spineflower preserves away from spineflower populations to convey surface or subsurface water away from the populations will be aligned to avoid the spineflower preserves to the maximum extent practicable.

(7) Fencing or other structural type barriers that will be installed to reduce intrusion of people or domestic animals into the spineflower preserves shall incorporate footing designs that minimize moisture collection.

Previously Incorporated Measures: Biological Monitor.

MIT-10: A knowledgeable, experienced botanist/biologist, subject to approval by the County and CDFG, shall be required to monitor the grading and fence/utility installation activities that involve earth movement adjacent to the Specific Plan spineflower preserves to avoid the incidental take through direct impacts of conserved plant species, and to avoid disturbance of the spineflower preserves. The biological monitor will conduct biweekly inspections of the Project site during such grading activities to ensure that the mitigation measures provided in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section) are implemented and adhered to.

Monthly monitoring reports, as needed, shall be submitted to the County verifying compliance with the mitigation measures specified in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The biological monitor will have authority to immediately stop any such grading activity that is not in compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section), and to take reasonable steps to avoid the take of, and minimize the disturbance to, spineflower populations within the spineflower preserves.

For further discussion of monitoring measures, see *Section 9*, below.

Previously Incorporated Measures: Construction Impact Avoidance Measures.

MIT-11: The following measures shall be implemented to avoid and minimize indirect impacts to spineflower populations within the Specific Plan area during all phases of Project construction:

(1) Water Control. Watering of the grading areas would be controlled to prevent discharge of construction water into the Specific Plan spineflower preserves or on ground sloping toward the spineflower preserves. Prior to the initiation of grading operations, the Project applicant, or its designee, shall submit for approval to the County an irrigation plan describing watering control procedures necessary to prevent discharge of construction water into the Specific Plan spineflower preserves and on ground sloping toward the spineflower preserves.

(2) Stormwater Flow Redirection. Diversion ditches would be constructed to redirect stormwater flows from graded areas away from the spineflower preserves. To the extent practicable, grading of areas adjacent to the spineflower preserves would be limited to spring and summer months (May through September) when the probability of rainfall is lower. Prior to the initiation of grading operations, the Project applicant, or its designee, would submit for approval to the County a stormwater flow redirection plan that demonstrates the flow of stormwater away from the Specific Plan spineflower preserves.

(3) Treatment of Exposed Graded Slopes. Graded slope areas would be trimmed and finished as grading proceeds. Slopes would be treated with soil stabilization measures to minimize erosion. Such measures may include seeding and planting, mulching, use of geotextiles and use of stabilization mats. Prior to the initiation of grading operations, the Project applicant, or its designee, would submit for approval to the County the treatments to be applied to exposed, graded slopes that would ensure minimization of erosion.

Previously Incorporated Measures: Reassessment Requirement.

MIT-12: In conjunction with submission of the first Specific Plan subdivision map in either Mesas Village (now known as Mission Village), or that portion of Riverwood Village (now known as Homestead Village) in which the San Martinez Grande spineflower location occurs, the Project applicant, or its designee, shall reassess Project impacts, both direct and indirect, to the spineflower populations using subdivision mapping data, baseline data from the Specific Plan Final EIR and data from the updated plant surveys.

This reassessment shall take place during preparation of the required tiered EIR for each subdivision map. If the reassessment results in the identification of new or additional impacts to spineflower populations within the Specific Plan area, which were not previously known or identified, the mitigation measures set forth in this program shall be required, along with any additional mitigation required at that time.

Previously Incorporated Measures: Specific Plan Monitoring and Management.

MIT-13: Direct and indirect impacts to the preserved spineflower populations within the Specific Plan area shall require a monitoring and management plan, subject to the approval of the County. The applicant shall consult with CDFG with respect to preparation of the Specific Plan spineflower monitoring/management plan. This plan shall be in place when the spineflower preserves and connectivity/preserve design/buffers are established (see Mitigation Measures 2 and 3). The criteria set forth below shall be included in the plan.

- Monitoring. The purpose of the monitoring component of the plan is to track the viability of the Specific Plan spineflower preserves and its populations, and to ensure compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

  The monitoring component of the plan shall investigate and monitor factors such as population size, growth or decline, general condition, new impacts, changes in associated vegetation species, pollinators, seed dispersal vectors, and seasonal responses. Necessary management measures will be identified. The report results will be sent annually to the County, along with photo documentation of the assessed site conditions.

  The Project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, with the concurrence of CDFG, to conduct quantitative monitoring

over the life of the Specific Plan. The botanist/biologist shall have a minimum of three years experience with established monitoring techniques and familiarity with Southern California flora and target taxa. Field surveys of the Specific Plan spineflower preserves will be conducted each spring. Information to be obtained will include: (a) an estimate of the number of spineflower in each population within the spineflower preserves; (b) a map of the extent of occupied vegetation communities at each population; (c) establishment of photo monitoring points to aid in documenting long-term trends in vegetation communities; (d) aerial photographs of the preserved spineflower areas at five-year intervals; (e) identification of significant impacts that may have occurred or problems that need attention, including invasive plant problems, weed problems and fencing or signage repair; and (f) overall compliance with the adopted mitigation measures.

For a period of three years from Specific Plan re-approval, all areas of potential vegetation communities on the Specific Plan area will be surveyed annually in the spring with the goal of identifying previously unrecorded spineflower populations. Because population size and distribution limits are known to vary depending on rainfall, annual surveys shall be conducted for those areas proposed for development in order to establish a database appropriate for analysis at the Project-specific subdivision map level (rather than waiting to survey immediately prior to proceeding with the Project-specific subdivision map process). In this way, survey results gathered over time (across years of varying rainfall) will provide information on ranges in population size and occupation. New populations, if they are found, will be mapped and assessed for inclusion in the spineflower preserve program to avoid impacts to the species.

- Monitoring/Reporting. An annual report will be submitted to the County and CDFG by December 31st of each year. The report will include a description of the monitoring methods, an analysis of the findings, effectiveness of the mitigation program, site photographs, and adaptive management measures, based on the findings. Any significant adverse impacts, signage, fencing or compliance problems identified during monitoring visits will be reported to the County and CDFG for corrective action by the Project applicant, or its designee.

- Management. Based on the outcome of ongoing monitoring and additional Project-specific surveys addressing the status and vegetation community requirements of the spineflower, active management of the Specific Plan spineflower preserves will be required in perpetuity. Active management activities will be triggered by a downward population decline over 5 consecutive years, or a substantial drop in population over a 10-year period following County re-approval of the Specific Plan. Examples of management issues that may need to be addressed in the future include, but are not limited to, control of exotic competitive non-native plant species, herbivore predation, weed control, periodic controlled burns, or fuel modification compliance.

After any population decline documented in the annual populations census following County re-approval of the Specific Plan, the Project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. If a persistent population decline is documented, such as a trend in steady population decline persistent for a period of 5 consecutive years, or a substantial drop in population detected over a 10-year period, spineflower may be introduced in appropriate vegetation communities and soils in the Specific Plan spineflower preserves, utilizing the bulk spineflower seed repository, together with other required management activity or activities. In connection with this monitoring component, the Project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, to complete: (a) a study of the breeding and pollination biology of the spineflower, including investigation into seed physiology to assess parameters that may be important as management tools to guarantee self-sustainability of populations, which may otherwise have limited opportunity for germination; and (b) a population genetics study to document the genetic diversity of the spineflower population within the Specific Plan area. The criteria for these studies shall be to develop data to make the Specific Plan spineflower management program as effective as possible. These studies shall be subject to approval by the County's biologist, with the concurrence of CDFG. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County with the concurrence of CDFG. The Project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, as approved by the County and CDFG.

The length of the active management components set forth above shall be governed by attainment of successful management criteria set forth in the plan rather than by a set number of years.

For further discussion of monitoring measures, see *Section* 9, below.

Previously Incorporated Measures: Translocation/Reintroduction Program.

MIT-14: To the extent Project-related direct and indirect significant impacts on spineflower cannot be avoided or substantially lessened through establishment of the Specific Plan spineflower preserves, and other avoidance, minimization, or other compensatory mitigation measures, a translocation and reintroduction program may be implemented in consultation with CDFG to further mitigate such impacts. Direct impacts (i.e., take) to occupied spineflower areas shall be fully mitigated at a 4:1 ratio. Impacts to occupied spineflower areas caused by significant indirect effects shall be mitigated at a 1:1 ratio.

Introduction of new spineflower areas will be achieved through a combination of direct seeding and translocation of the existing soil seed bank that would be impacted by grading. Prior to any development within, or disturbance to, spineflower populations, on-site and off-site mitigation

areas shall be identified and seed and top soil shall be collected. One-third of the collected seed shall be sent to the Rancho Santa Ana Botanical Garden for storage. One-third of the seed shall be sent to the USDA National Seed Storage Lab in Fort Collins, Colorado for storage. One-third shall be used for direct seeding of the on-site and off-site mitigation areas.

- Direct seeding. Prior to the initiation of grading, the Project applicant, or its designee, shall submit to the County a program for the reintroduction of spineflower on the Specific Plan area. The reintroduction program shall include, among other information: (a) location map with scale; (b) size of each introduction polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for seed collection and application; and (f) monitoring and reporting. The program shall be submitted to CDFG for input and coordination. The Project applicant, or its designee, shall implement the reintroduction program prior to the initiation of grading. At least two candidate spineflower reintroduction areas will be created within the Specific Plan area and one candidate spineflower reintroduction area will be identified off site. Both on-site and off-site reintroduction areas will be suitable for the spineflower in both plant community and soils, and be located within the historic range of the taxon. Success criteria shall be included in the monitoring/management plan, with criteria for the germination, growth, and production of viable seeds of individual plants for a specified period.

  Although the reintroduction program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the reintroduction program.

- Translocation. Prior to the initiation of grading, the Project applicant, or its designee, shall submit to the County a translocation program for the spineflower. Translocation would salvage the topsoil of spineflower areas to be impacted due to grading. Salvaged spineflower soil seed bank would be translocated to the candidate spineflower reintroduction areas. The translocation program shall include, among other information: (a) location map with scale; (b) size of each translocation polygon; (c) plans and specifications for site preparation, including selective clearing of competing vegetation; (d) site characteristics; (e) protocol for topsoil collection and application; and (f) monitoring and reporting. The translocation program shall be submitted to CDFG for input and coordination. Translocation shall occur within the candidate spineflower reintroduction areas on site and off site. Successful criteria for each site shall be included in the monitoring/management plan/with criteria for the germination and growth to reproduction of individual plants for the first year a specified period.

Although the translocation program is experimental at this stage, the County considers such a program to be a feasible form of mitigation at this juncture based upon available studies. Botanists/biologists familiar with the ecology and biology of the spineflower would prepare and oversee the translocation program.

Previously Incorporated Measures: On-Going Agricultural Activities.

MIT-15: The Project applicant, or its designee, shall engage in regular and ongoing consultation with the County and CDFG in connection with its ongoing agricultural operations in order to avoid or minimize significant direct impacts to the spineflower.

In addition, the Project applicant, or its designee, shall provide 30 days advance written notice to the County and CDFG of the proposed conversion of its ongoing rangeland operations on the Specific Plan area to more intensive agricultural uses. The purpose of the advance notice requirement is to allow the applicant, or its designee, to coordinate with the County and CDFG to avoid or minimize significant impacts to the spineflower prior to the applicant's proposed conversion of its ongoing rangeland operations to more intensive agricultural uses. This coordination component will be implemented by or through the County's Department of Regional Planning and/or the Regional Manager of CDFG. Implementation will consist of the County and/or CDFG conducting a site visit of the proposed conversion area(s) within the 30-day period, and making a determination of whether the proposed conversion area(s) would destroy or significantly impact spineflower population in or adjacent to those areas. If it is determined that the conversion area(s) do not destroy or significantly impact spineflower populations, then the County and/or CDFG will authorize such conversion activities in the proposed conversion area(s). However, if it is determined that the conversion area(s) may destroy or significantly impact spineflower populations, then the County and/or CDFG will issue a stop work order to the applicant, or its designee. If such an order is issued, the applicant, or its designee, shall not proceed with any conversion activities in the proposed conversion area(s). However, the applicant, or the designee, may take steps to relocate the proposed conversion activities in an alternate conversion area(s). In doing so, the applicant, or its designee, shall follow the same notice and coordination provisions identified above. This conversion shall not include ordinary pasture maintenance and renovation or dry land farming operations consistent with rangeland management.

Previously Incorporated Measures: San Martinez Grande Preserve Area Population.

MIT-16: Upon approval of tentative tract map(s) impacting the San Martinez Grande portion of the Specific Plan area, the applicant shall work with the Department of Regional Planning staff and the Significant Ecological Area Technical Advisory Committee (SEATAC) to establish an appropriately sized spineflower preserve area to protect the spineflower population at San Martinez Grande Canyon.

8.2 Proposed Mitigation Measures

Proposed Additional Mitigation Measures: Establishment and Oversight of Spineflower Preserves.

MIT-17: The proposed spineflower preserve areas shall be offered to CDFG as a permanent conservation easement, within 1 year after issuance of the requested 2081 Permit to ensure long-term protection. The conservation easement shall be to the CDFG and contain appropriate funding and restrictions to help ensure that the spineflower preserve lands are protected in perpetuity.

MIT-18: The spineflower preserves shall be managed by Newhall Land and their spineflower preserve manager(s) and/or natural lands management organization(s) (NLMO). Newhall Land shall submit a statement of qualifications for their proposed spineflower preserve manager(s)/NLMO(s) for approval by CDFG.

Proposed Additional Mitigation Measures: Restoration of Disturbed Portions of Spineflower Preserves.

MIT-19: Disturbed portions (i.e., agricultural lands, disturbed lands, and developed lands) of the spineflower preserves will be restored through revegetation with native plant communities. In summary, areas that have greater than 30% absolute cover by weeds (not including annual grasses) will be restored to have at least 70% absolute cover by native species. In addition, Cal-IPC List A and B plants that are present within the spineflower preserve will be controlled. Restoration and enhancement efforts within the spineflower preserve areas shall be in conformance with the Spineflower Conservation Plan.

Proposed Additional Mitigation Measures: Response to Wildfire within Spineflower Preserves.

MIT-20: In the event that a spineflower preserve or a portion of a spineflower preserve burns in a wildfire or suffers from mass movements (e.g., landslides, slope sloughing, or other geologic events), the spineflower preserve manager and Newhall shall promptly review the site and determine what action, if any, should be taken. The primary anticipated post-fire spineflower preserve management activity involves monitoring the site and controlling annual weeds that may invade burned areas following a fire event, especially when such weeds (that were not previously present or not present in similar densities) present an imminent threat to the survival of spineflower populations. If fire-control lines or other forms of bulldozer damage occur in the spineflower preserves, these areas will be repaired and revegetated to approximate pre-burn conditions. An emergency fire response plan will be prepared (in accordance with Mitigation Measure SP-4.6-72) prior to the establishment of the spineflower preserves and approved by CDFG and Los Angeles County Fire Department.

The same passive successional regeneration methods will be applied to mass-movement, landslide, or slope-sloughing types of events. This measure shall be implemented in conformance with the Spineflower Conservation Plan.

Proposed Additional Mitigation Measures: Prevention of Construction-related Impacts

MIT-21: Spineflower preserve temporary fencing shall be shown on construction plans and installed prior to initiating construction clearing and grubbing activities within 200 feet of spineflower preserves. The spineflower preserve manager or qualified biologist shall monitor fence installation. Clearing for fence installation shall be minimized to what is necessary to install the fence, and where possible shall leave the roots of native plants in place to allow regrowth. As necessary, native vegetation will be restored and weed management shall be performed following fence installation to ensure temporarily cleared native plant areas do not become weed dominated after installation. General Project clearing and grubbing within 200 feet of the fence may commence upon verification by the spineflower preserve manager or the qualified biologist that protective fencing is in place and is adequate. Appropriate BMPs shall be installed at the edge of development manufactured slopes, when the spineflower preserve is within 200 feet and down-slope of proposed development.

MIT-22: Construction documents shall require a pre-construction meeting to perform an "environmental education session" with the grading contractor/contractor's employees, subcontractors and equipment operators, prior to commencing construction work within 100 feet of the spineflower preserves. The environmental education session shall be conducted by the spineflower preserve manager or qualified biologist and focus on informing workers of the location and sensitivity of the spineflower and the requirements to protect it. The construction documents shall indicate that the grading contractor shall be responsible for mitigating any impacts to spineflower due to the negligence of the grading contractor/contractor's employees, subcontractors or equipment operators. If accidental take occurs during construction, the loss shall be addressed in accordance with the Section 2081 Incidental Take Permit issued by CDFG.

MIT-23: Construction plans shall include necessary design features and construction notes to demonstrate consistency of development in the vicinity of spineflower preserves with the SCP. In addition to applicable erosion control plans and performance under SCAQMD Rule 403d dust control, the Project SWPPP shall include the following minimum BMPs. Together, the implementation of these requirements shall ensure that spineflower populations are protected during construction. At a minimum the following measures/restrictions shall be incorporated into the SWPPP, and noted on construction plans where appropriate, to avoid impacting spineflower during construction:

- Avoid planting or seeding invasive species in development areas within 200 feet of spineflower preserve areas;

- Do not use erosion control devices that may contain weeds, such as hay bales, etc., within 100 feet of spineflower preserves;
- Do not windrow or stockpile soil along spineflower preserve boundaries;
- Do not locate staging areas, maintenance or concrete washout areas adjacent to or upstream of spineflower preserves;
- Do not store toxic compounds, including fuel, oil, lubricants, paints, release agents, or any other construction materials that could damage spineflower if spilled near spineflower areas, upstream of spineflower preserves or along spineflower preserve boundaries;
- Provide location and details for any fencing for temporary and permanent access control along preserve boundaries (BIO-31);
- Provide location and details for any dust control fencing along preserve boundaries (BIO-32); and
- Provide location and details for any stormwater run-on controls/BMPs coming from development area to spineflower preserve (BIO-27).

MIT-24: The spineflower preserve manager, or qualified biologist, shall review construction plans and specifications, SWPPP, and where appropriate erosion control plans and implementation of AQMD Rule 403d dust control measures, prior to construction within 200 feet of spineflower preserves for compliance with the SCP and associated permits and Project-related environmental documents.

MIT-25: Spineflower preserves shall be protected prior to clearing and during construction with temporary construction fencing, as described in MIT-19. Openings shall be included in the fence when located within wildlife corridors and vegetation community connectivity areas to allow for the safe passage of wildlife. The spineflower preserve manager or qualified biologist shall indicate the location and width of each of these openings. The fencing shall be three strand non-barbed wire fence or bright orange U.V. stabilized polyethylene construction snow fencing, attached to metal t-posts that extend at least four feet above grade or equivalent. Protective fencing shall be maintained in good condition until completion of Project construction. Where construction activities occur within 200 feet of a spineflower preserve, the spineflower preserve manager or qualified biologist shall review fencing weekly during construction monitoring visits and note any fencing that is in need of repair. Repairs shall be completed within three working days of notification by the spineflower preserve manager or qualified biologist.

MIT-26: Development areas shall have dust control measures implemented and maintained to prevent dust from impacting vegetation within the spineflower preserve areas. Dust control shall be implemented during construction in compliance with AQMD Rule 403d. Where construction activities occur within 100 feet of a spineflower location, chemical dust suppression shall not be utilized. Where determined necessary by the spineflower preserve manager, a screening fence

(i.e., a 6-foot high chain link fence with green fabric up to a height of 5 feet) shall be installed to protect spineflower locations.

Proposed Additional Mitigation Measures: Construction Monitoring and Reporting

MIT-27: The spineflower preserve manager or qualified biologist shall perform weekly construction monitoring for all construction activities within 200 feet of spineflower preserve areas. The spineflower preserve manager or qualified biologist's construction monitoring tasks shall include reviewing and approving protective fencing, dust control measures and erosion control devices before construction work begins, conducting a contractor education session at the preconstruction meeting, and reviewing the site weekly (minimum) during construction to ensure the fencing, dust control and BMPs measures are in place and functioning correctly, and that work is not directly or indirectly impacting spineflower plants. Each site visit shall be followed up with a summary monitoring report sent electronically to Newhall indicating the status of the site. Monitoring reports shall include remedial recommendations when necessary.

Proposed Additional Mitigation Measures: Landscape Planting Adjacent to Spineflower Preserves

MIT-28: Plant palettes proposed for use on landscaped slopes, street medians, park sites, and other public landscaped and FMZ areas within 100 feet, shall be reviewed by the spineflower preserve manager or qualified biologist to ensure that the proposed landscape plants will not naturalize and cause maintenance or vegetation community degradation in the spineflower preserve and buffer areas. Container plants to be installed within public areas within 200 feet of the spineflower preserves shall be inspected by the spineflower preserve manager or qualified biologist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or disease shall be rejected. In addition, landscape plants shall not be on the Cal-IPC California Invasive Plant Inventory (most recent version) or on the list of Invasive Ornamental Plants listed in *Appendix B* of the SCP. The current Cal-IPC list can be obtained from the Cal-IPC web site (Cal-IPC 2006, 2007).

Proposed Additional Mitigation Measures: Access

MIT-29: All portions of the spineflower preserves shall be closed, with the exception of pre-identified existing dirt roads and utility easements. The pre-identified existing dirt roads and utility easement access roads shall function as access for the spineflower preserve manager, spineflower preserve maintenance personnel, utility personnel, emergency service vehicles (e.g., police, fire, and medical), and as trails. The dirt roads shall be gated and locked at the outside edges of the buffer zone. Paths proposed for use as nature trails shall have openings in the fencing at identified trailhead locations wide enough only for trail users to pass through. Signs discouraging unauthorized access shall be posted. The only persons or entities issued gate keys

shall be the spineflower preserve manager and their employees, easement holding utility companies, emergency services, Newhall Land, and CDFG.

Proposed Additional Mitigation Measures: Permanent Fencing and Signage

MIT-30: Fencing shall be installed along the outside edge of the spineflower preserve and buffer areas adjacent to proposed developments, parks, golf courses, or other active land uses to prevent unauthorized access. Specific areas that are adequately protected by steep terrain (1.5:1 or steeper) and/or dense vegetation may not require fencing, but would require signage. The determination of the need for fencing in these areas shall be subject to the approval of the spineflower preserve manager or qualified biologist. If monitoring determines that slope and/or vegetation is not effective at deterring unauthorized access, additional fencing may be required to be added by the spineflower preserve manager or qualified biologist. Fencing is not required in areas bordered by large parcels of conserved natural open space areas, or the Santa Clara River riparian corridor, as installing fencing in these areas would be unnecessary and damaging to existing vegetation and wildlife corridors.

Fencing must extend a minimum of 4 feet above grade and include wood-doweled split rail fencing, exterior grade heavy duty vinyl three-railed fencing, three-strand non-barbed wire, or similar. Fencing installed adjacent to native vegetation communities and natural open space areas will allow for the passage of animals.

MIT-31: Outdoor all-weather signs measuring approximately 12 by 16 inches shall be posted on all spineflower preserve access gates and along spineflower preserve fencing at approximately 800 feet on center, except adjacent to road crossings, where signs will be posted. The placement will take topography into account, emphasizing placement on ridgelines where they will be visible to emergency fire personnel and others. Signs shall state in English and Spanish that the area is a biological preserve that hosts a state-listed endangered and federal candidate plant species and that trespassing is prohibited (in accordance with Newhall Ranch Program EIR Mitigation Measure 4.6-68). Signs shall indicate that fuel modification and management work is not allowed within the spineflower preserve or buffer areas. Signage at trailheads shall describe the spineflower preserve, its purpose, and the applicable rules of conduct within the spineflower preserve. The signage shall state that people not abiding by these rules or who damage the protected species will be subject to prosecution, including fines and/or imprisonment. All signage shall include emergency contact information and shall be reviewed and approved by the spineflower preserve manager or qualified biologist.

Proposed Additional Mitigation Measures: Storm Drains and Altered Hydrology

MIT-32: Storm drain outfalls from proposed development areas shall only be installed within spineflower preserve areas where necessary to retain pre-construction hydrologic conditions within the spineflower preserves, sustain existing riparian and wetland vegetation communities

and/or allow for the restoration of currently disturbed areas to native riparian/alluvial vegetation community. When located in a spineflower preserve area, storm drains must meet the following criteria:

- Storm drains must not impact spineflower either directly or indirectly;
- Storm drains may only daylight at the bottom of slopes within spineflower preserve areas; and
- Under no circumstances shall storm drains daylight onto steeply sloped areas or other areas that would cause erosion.

MIT-33: Any surface water entering a spineflower preserve area from development areas is required to pass through BMP measures, which will be described in the SWPPP. Storm drain outlets must contain adequate energy dissipaters to prevent downstream erosion and stream channel down-cutting. Additionally, storm drain outlets must be designed based on pre- and post-construction hydrologic studies (in accordance with Newhall Ranch Program EIR Mitigation Measure 4.6-69). Storm drains and permanent structural BMPs shall be designed by a licensed civil engineer. Requirements of MIT-21, 23, and 28, where applicable, shall be incorporated into the facility design and shall be subject to approval by the spineflower manager or qualified biologist. Long-term maintenance of storm drain BMPs will be the responsibility of the designated maintenance entity.

Proposed Additional Mitigation Measures: Argentine Ant Control

MIT-34: To preclude the invasion of Argentine ants into the spineflower preserves and their associated buffers, controls will be implemented using an integrated pest management (IPM) approach in accordance with the approved SCP. The controls include (1) providing "dry zones" between urban development and spineflower populations; (2) Ensuring that landscape container plants installed within 200 feet of spineflower preserves are ant free prior to installation; (3) maintaining natural hydrological conditions in the spineflower preserves through project design features; and (4) using drought-resistant plants in FMZs and minimizing irrigation to the extent feasible.

9. MONITORING PLAN (CCR § 783.2(a) (9))

A spineflower monitoring program has been developed to measure the success of management in achieving the biological goals and objectives pertaining to spineflower populations, namely, to maintain or increase San Fernando Valley spineflower populations within the spineflower preserves. The goal of the spineflower monitoring program is to provide objective, repeatable methods for collecting, analyzing, and interpreting ecologically meaningful information that can be used to evaluate the status of spineflower populations, the effectiveness of the conservation strategy, and the design of future management and monitoring, using the most cost-effective methods possible. The monitoring will include quantitative and qualitative monitoring methods,

which will be documented in annual reports submitted to the County and CDFG after approval of this 2081 permit. Qualitative monitoring will be conducted quarterly and quantitative monitoring will be conducted annually, each for 10 years. The Spineflower Monitoring Program is included as *Appendix E* of the SCP.

Additional monitoring methods can be found in *Section 11.0* of the attached SCP.

The following monitoring actions are proposed:

MON-1: The spineflower preserve manager or qualified biologist shall monitor spineflower preserve temporary fence installation described in Mitigation Measure 21. The spineflower preserve manager or qualified biologist shall perform weekly construction monitoring for all construction activities within 200 feet of spineflower preserve areas. The spineflower preserve manager or qualified biologist 's construction monitoring tasks shall include reviewing and approving protective fencing, dust control measures and erosion control devices before construction work begins, conducting a contractor education session at the preconstruction meeting, and reviewing the site weekly (minimum) during construction to ensure the fencing, dust control and BMP measures are in place and functioning correctly, and that work is not directly or indirectly impacting spineflower plants. Each site visit shall be followed up with a summary monitoring report sent electronically to Newhall Land indicating the status of the site. Monitoring reports shall include remedial recommendations when necessary.

During weekly construction monitoring visits, the spineflower preserve manager or qualified biologist shall note any fencing that is in need of repair. Repairs shall be completed within three working days of notification by the spineflower preserve manager or qualified biologist.

MON-2: A knowledgeable, experienced botanist/biologist, subject to approval by the County and CDFG, shall be required to monitor the grading and fence/utility installation activities that involve earth movement adjacent to the Newhall Land SCP Project spineflower preserves to avoid the incidental take through direct impacts of conserved plant species, and to avoid disturbance of the spineflower preserves. The biological monitor will conduct biweekly inspections of the Project site during such grading activities to ensure that the mitigation measures provided in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section) are implemented and adhered to.

Monthly monitoring reports, as needed, shall be submitted to the County verifying compliance with the mitigation measures specified in the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The biological monitor will have authority to immediately stop any such grading activity that is not in compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota

section), and to take reasonable steps to avoid the take of, and minimize the disturbance to, spineflower populations within the spineflower preserves.

MON-3: Once the boundaries of the Newhall Land SCP Project spineflower preserves are delineated (per the requirements of Mitigation Measure 2), Newhall Land, or its designee, shall be responsible for conducting a spineflower population census within the spineflower preserves annually for 10 years. The yearly spineflower population census documentation shall be submitted to the County and CDFG, and maintained by the Project applicant, or its designee. If there are any persistent population declines documented in the annual population census reports, the Project applicant, or its designee, shall be responsible for conducting an assessment of the ecological factor(s) that are likely responsible for the decline, and implement management activity or activities to address these factors where feasible. In no event, however, shall Project-related activities jeopardize the continued existence of the Newhall Land SCP Project spineflower populations. If a persistent population decline is documented, such as a trend in steady population decline that persists for a period of 5 consecutive years, or a substantial drop in population is detected over a 10-year period, spineflower may be introduced in consultation with CDFG in appropriate vegetation communities and soils in the Newhall Land SCP Project spineflower preserves, utilizing the bulk spineflower seed repository, together with other required management activity or activities. These activities shall be undertaken by a qualified botanist/biologist, subject to approval by the County and CDFG. The Project applicant, or its designee, shall be responsible for the funding and implementation of the necessary management activity or activities, including monitoring, as approved by the County and CDFG.

Annual viability reports shall be submitted to the County and CDFG for 10 years following delineation of the Newhall Land SCP Project spineflower preserves to ensure long-term documentation of the spineflower population status within the Newhall Land SCP Project spineflower preserves. In the event annual status reports indicate the spineflower population within the Newhall Land SCP Project spineflower preserves is not stable and viable 10 years following delineation of the spineflower preserves, the Project applicant, or its designee, shall continue to submit annual status reports to the County and CDFG for a period of no less than an additional 5 years.

MON-4: Fencing shall be installed along the outside edge of the spineflower preserve and buffer areas adjacent to proposed developments, parks, golf courses, or other active land uses to prevent unauthorized access. Specific areas that are adequately protected by steep terrain (1.5:1 or steeper) and or dense vegetation may not require fencing, but would require signage. Monitoring by the spineflower preserve manager or qualified biologist would determine the need for fencing in these areas. If monitoring determines that slope and/or vegetation is not effective at deterring unauthorized access, additional fencing may be required to be added by the spineflower preserve manager or qualified biologist.

MON-5: As previously discussed in Mitigation Measure 13, direct and indirect impacts to the Newhall Land SCP Project spineflower populations shall require a monitoring and management plan, subject to the approval of the County. The applicant shall consult with CDFG with respect to preparation of the Newhall Land SCP Project spineflower monitoring/management plan. This plan shall be in place when the spineflower preserves and connectivity/preserve design/buffers are established (see Mitigation Measures 2 and 3). The criteria set forth below shall be included in the monitoring portion of the plan.

Monitoring. The purpose of the monitoring component of the plan is to track the viability of the SCP spineflower preserves and its populations, and to ensure compliance with the adopted Newhall Ranch Mitigation Monitoring Program (Biota section).

The monitoring component of the plan shall investigate and monitor factors such as population size, growth or decline, general condition, new impacts, changes in associated vegetation species, pollinators, seed dispersal vectors, and seasonal responses. Necessary management measures will be identified. The report results will be sent annually to the County, along with photo documentation of the assessed site conditions.

The Project applicant, or its designee, shall contract with a qualified botanist/biologist, approved by the County, with the concurrence of CDFG, to conduct quantitative monitoring over the life of the Specific Plan. The botanist/biologist shall have a minimum of three years experience with established monitoring techniques and familiarity with Southern California flora and target taxa. Field surveys of the Newhall Land SCP Project spineflower preserves will be conducted each spring. Information to be obtained will include: (a) an estimate of the number of spineflower in each population within the spineflower preserves; (b) a map of the extent of occupied vegetation communities at each population; (c) establishment of photo monitoring points to aid in documenting long-term trends in vegetation communities; (d) aerial photographs of the preserved spineflower areas at five-year intervals; (e) identification of significant impacts that may have occurred or problems that need attention, including invasive plant problems, weed problems and fencing or signage repair; and (f) overall compliance with the adopted mitigation measures.

For a period of three years from Specific Plan re-approval, all areas of potential vegetation communities on the Newhall Land SCP Project site will be surveyed annually in the spring with the goal of identifying previously unrecorded spineflower populations. Because population size and distribution limits are known to vary depending on rainfall, annual surveys shall be conducted for those areas proposed for development in order to establish a database appropriate for analysis at the Project-specific subdivision map level (rather than waiting to survey immediately prior to proceeding with the Project-specific subdivision map process). In this way, survey results gathered over time (across years of varying rainfall) will provide information on

ranges in population size and occupation. New populations, if they are found, will be mapped and assessed for inclusion in the spineflower preserve program to avoid impacts to the species.

Monitoring/Reporting. An annual report will be submitted to the County and CDFG by December 31st of each year. The report will include a description of the monitoring methods, an analysis of the findings, effectiveness of the mitigation program, site photographs, and adaptive management measures, based on the findings. Any significant adverse impacts, signage, fencing or compliance problems identified during monitoring visits will be reported to the County and CDFG for corrective action by the Project applicant, or its designee.

MON-6: Following the completion and occupancy of a development area, quarterly monitoring shall be initiated for Argentine ants along the urban/open space interface at sentinel locations where invasions could occur (e.g., where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the monitoring locations. Ant pitfall traps would be placed in these sentinel locations and operated on a quarterly basis to detect invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures would be implemented immediately to help prevent the invasion from worsening. These direct controls may include but or not limited to nest/mound insecticide treatment and broadcast application of insecticides over large infested areas, or available natural control methods being developed. A general reconnaissance of the infested area would also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, collected water, etc. If necessary, remedial measures will be identified for consideration by the spineflower preserve manager or CDFG for potential implementation.

10. FUNDING (CCR § 783.2(a)(10))

Newhall Land will provide full funding for the implementation of the minimization and mitigation activities described herein. In the case of the conservation easement areas, Newhall Land already owns the subject land, thus this major minimization measure is essentially already funded. Newhall Land, or a designee, will ensure the funding for all other agreed upon mitigation measures by posting bonds (or other CDFG-approved financial assurance mechanisms) on a phased basis relative to the development area under construction, as further discussed below.

To ensure adequate funding to carry out all mitigation, monitoring and reporting obligations, any project noticed to the Department by Newhall Land, or a designee, pursuant to a Master Streambed Alteration Agreement issued for the RMDP, shall post security prior to disturbance of Project areas described in said notification. The anticipated process for such a notification is the RMDP Subnotification Letter. The amount of security posted for each Subnotification project shall be based on the estimated cost of carrying out the mitigation measures and monitoring activities for that Subnotification project as set forth as conditions of approval of this permit. Newhall Land shall submit a detailed estimate of these costs to CDFG for review and approval in advance of each Subnotification project. The security may be a pledged savings or trust account,

certificate of deposit, irrevocable letter of credit, surety bond or other form approved by CDFG. Nothing shall prevent Newhall Land from requesting, and obtaining, partial or final release of any established security upon demonstrating to CDFG that mitigation, monitoring and reporting obligations have been satisfied for a Subnotification project, or portion thereof. Updated security cost estimates and a replacement security may be submitted as necessary to carry out those activities yet to be fully satisfied. The Annual Mitigation Monitoring Report submittal shall be used for such requests.

CDFG will, within 30 days of receiving a security proposal, a replacement instrument, or a request for partial or full release of an individual project security: 1) review the cost estimates and adjust those estimates as needed to reflect the probable costs of carrying out, or completing, the required mitigation and monitoring measures, 2) review the request for partial or final security release, 3) approve or deny the request for security replacement or release, and 4) approve or deny the form and terms of any new form of security. Any denial of a security shall be in writing from CDFG to Newhall Land, with a reason for the decision. If CDFG fails to respond to Newhall Land within the 30 day time frame the request shall be deemed approved. This clause shall be suitable for inclusion as a term for any security. To obtain release of the financial obligation from the holder of the security (bank, bond company, CDFG, etc.), Newhall Land shall present proper documentation to the holder of the security that the request to CDFG was made, and that 30 days has passed. Proof of submittal shall be written documentation of receipt by CDFG's General Counsel Office via hand delivery, "Return Receipt" via US Post Office, or Overnight Carrier. Proof of receipt, with inclusion of this clause as a term of the security, shall constitute CDFG authorization to the holder of the security for release of the security back to Newhall Land, if CDFG has not responded within 30 days.

11. CERTIFICATION (CCR § 783.2(a)(11))

I certify that the information submitted in this application is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to suspension or revocation of this permit and to civil and criminal penalties under the laws of the State of California.

Mark Subbotin
The Newhall Land & Farming Company

12. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CCR § 783.3(b))

Section 783.3 of Title 14 of the California Code of Regulations lays out CEQA-compliance requirements where CDFG is the responsible or lead agency for purposes of issuing an Incidental Take Permit. Subsection 783.3(a) does not apply here because CDFG is the lead agency and not the responsible agency. Subsection 783.3(b) applies here because CDFG is the CEQA lead agency here.

Section 783.3(b) requires submittal of information by the Project applicant showing compliance with CEQA requirements. The submission of compliance information does not need to be concurrent with the submission of the Incidental Take Permit application: "[t]he analysis and information required by this section shall be provided to the Department [CDFG] as soon as reasonably practicable following the submission of a permit application" (CCR § 783.3(b)).

Pursuant to CCR § 783.3(b), an applicant must submit the following information in addition to that information required by CCR § 783.2. First, the applicant must provide information to CDFG regarding whether the project may result in significant adverse environmental effects in addition to those impacts of taking analyzed in the Incidental Take Permit. Second, if additional significant adverse environmental effects are found to exist, the applicant must state whether feasible alternatives or mitigation measures would avoid or lessen those significant adverse effects. Third, the applicant must analyze all potentially significant adverse environmental effects resulting from the project and include a discussion of the feasible alternatives and mitigation measures that will be used to avoid or substantially lessen those significant adverse environmental effects with documentation to support that analysis. Fourth, if the analysis identifies significant adverse environmental effects for which feasible mitigation measures are not available, the applicant must also include a statement describing specific environmental, economic, legal, social, technological, or other benefits which might justify the significant environmental effects created by the project.

There is currently underway a Draft EIS/EIR jointly prepared by the Corps and CDFG with Newhall Land's continued involvement, including Newhall Land supplying all of the information required by CCR § 783.3(b). Numerous technical studies, including biological surveys, have been prepared regarding the species proposed to be covered by the Incidental Take Permit, as well as regarding all other environmental issues triggered by the overall SCP project.

13. LITERATURE CITED

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