California Native Plant Society

PO Box 377 • Coloma • California • 95613

October 16, 2006

Board of Supervisors
El Dorado County
2850 Fairlane Court
Placerville, CA 95667

Re: Comments on the Congregate Project (A06-0003/Z05-0008/TM05-1400/P05-0014/PD05-0005/S05-0017)

To the Board of Supervisors:

These comments are submitted on behalf of the El Dorado Chapter of the California Native Plant Society (CNPS), the Center for Sierra Nevada Conservation, and the Environmental Planning and Information Council of El Dorado County.

We object to the lack of public review provided for the amended MND. Significant changes were made to the analysis of impacts of the project on rare plant resources on October 13, 2006. Also, new mitigation measures intended to address the newly disclosed impacts were issued on October 12, 2006. These changes are a significant alteration to the MND and require an additional 30-day review under the California Environmental Quality Act (CEQA).

Further, we object to the lack of notification provided to CNPS regarding the public comment period and hearing for this project. I sent a letter to the Planning Department on April 5, 2005 requesting that I be notified of any projects that were proposed for the gabbro soils study area. (Attachment 1). I know this letter was received by the Planning Department, since I subsequently met with staff to discuss the letter. I again sent a request to the county to be notified of any projects proposed in the gabbro soils study area on August 25, 2006. Between the time of the request in April, 2005 and September 1, 2006, I did not receive notice of any projects being undertaken in the gabbro soils study area. Apparently, there was at least one project – the Congregate Project – during that time. This failure of the county to provide notice as requested prevented me from being able to review the mitigated negative declaration prior to the Planning Commission hearing and prevented me from providing comments on the project in the early stages of development. (Attachment 2). We are committed to finding solutions to conflicts between natural resources and proposed developments. We can not, however, effectively participate if we are not notified of projects that are being proposed. Please notify the CNPS at the above address about all projects proposed in the gabbro soils study area as early in the planning process as possible.

We also object to the Congregate Project as presented in the amended mitigated negative declaration (MND) dated October 13, 2006. As described below, the project as designed does not fully mitigate the impacts of the project on the rare plant *Ceanothus roderickii*. The mitigation measures described are experimental and not previously tested. Further, the proposal

lacks detail on the specific growth requirements of this rare plant, and planting techniques and culturing practices that will be applied to ensure the long term survivorship of the transplanted individuals in the natural environment. Due to the high level of uncertainty regarding the long term success of such a translocation project, the conclusion that "the proposed mitigation measures will result in no net loss of individual *C. roderickii* plants" (Exhibit E.1, p. 5) can not be supported by evidence provided in the environmental analysis. Further, the loss of these individuals of *C. roderickii* constitute a significant reduction in the number of individuals of this plant species and requires a mandatory finding of significance. Lastly, contrary to the claim made in the amended MND and as described below, the project does not comply with the general plan policy on the Pine Hill plants (Policy 7.4.1.1).

We ask that you not approve this project and negative declaration until mitigation measures have been provided that reduce the level of impacts to less than significant or until an environmental impact report is completed that discloses the significant impacts on the environment. Further, we ask that you deny this project until it complies with the El Dorado County general plan.

I. Background

The Congregate Project is sited in as area known to support rare, and state and federally listed plant species. The areas proposed for rezoning and development support at least five rare species including Stebbins morning glory (*Calystegia stebbinsii*), Roderick's ceanothus (*Ceanothus roderickii*), Red Hills soap root (*Chlorogalum grandiflorum*), Bisbee Peak rush rose (*Helianthemum suffrutescens*) and El Dorado mule ears (*Wyethia reticulata*). (Biological Resources Evaluation Report, pp. 24-26). Impacts from grading and the direct mortality of the plants were identified as the only project impacts to these species (*Ibid.*).

II. The analysis of impacts to *Ceanothus roderickii* does not make sense.

Exhibit E.1 (pp. 2-9) includes amendments to the MND regarding Item A of the section on "Mandatory Findings of Significance." The table on page 3 appears to be derived in part from the occurrence records for *C. roderickii* that are held in the California Natural Diversity Database (CNDDB) which is maintained by the California Department of Fish and Game. Each occurrence record contains a variety of information on each occurrence including, if available, the size of the occurrence in acres.[1]

The section titled "Impact" in the amended MND (p. 2) states that "The area estimated to be currently occupied by Ceanothus roderickii populations in El Dorado County is 99.52 acres." There is no explanation given about how this estimate was made. Examination of the 17 occurrence records from which this information was derived shows that the sum of the area reported is far greater than 99.52 acres. (Attachment 3). Without an explanation of the methods

[1] The full records for each of the occurrences listed in the CNDDB are attached to these comments.

used to derive this estimate of coverage, it is not possible to evaluate the assertion in the amended MND that the project will affect 2.8 percent of occupied habitat.

The table on p. 3 does appear to accurately reflect the numbers of *C. roderickii* individuals reported in the CNDDB records and does appear to accurately include the additional individuals noted as a result of project or recent surveys. Using the information on estimated individuals, the project will remove 33 percent of the known *C. roderickii* individuals. This is a significant potential reduction in the numbers of a rare plant species.

It is also of note that when combined with the *C. roderickii* individuals found on the other 40 acres owned by Cameron Park Ventures (this applicant), the 68 acre area supports about 63 percent of the known population. Thus, development of this 68-acre site has the potential to reduce the known population of *C. roderickii* by 63 percent.

III. Life history and culture information on *Ceanothus* species is incorrect or absent.

Exhibit E.1 (p. 4) states that "Since Ceanothus species tend to be short-lived (5-10 years), the many species and cultivars available for sale are maintained by propagation of cuttings." *Ceanothus* species, in general, are not short lived in their native state. In naturally occurring populations, *Ceanothus* species are known to be long lived with life spans often regulated by the occurrence of fire. Plant ages of 30-40 years and older have been noted in the literature.[2] Further, the Pine Hill recovery plan notes that some *Ceanothus* species live at least 25 years. (Recovery plan, p. II-23). There is no information reported in the literature on age for *C. roderickii*. I have personally observed the same mature, seed bearing *C. roderickii* growing on Pine Hill for the past 12 years. The plants that I have observed were already well established when I first saw them in 1994. These plants are likely to be well over 15 to 20 years old.

Possibly the consultant's belief that *Ceanothus* species are short lived comes from the horticultural literature. Fross and Wilken (2006, p. 23)[3] find that:

> "The reputation of *Ceanothus* as short lived is often based on poor site selection rather than an inherent problem with the genus. Poorly drained soils combined with frequent summer irrigation will kill plants in a few years."

Foss and Wilken also refer to plants in their native habitats declining as they age and identify that fire cycles (20-, 35- or 50-year cadences depending on site conditions) often regulate the age of the plants. (*Ibid.*, p. 24).

The Exhibit E.1 (p. 4) also refers to providing "a temporary irrigation system for the plantings." As noted above, improperly applied irrigation, especially in the summer, can result in short-lived plants. Further, Foss and Wilken (2006, p. 22) state that "Numerous fungal

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[2] See for example Larigauderie, A., Hubbard, T. W., Kummeror, J 1990. Growth dynamics of two chaparral shrub species with time after fire. Madrono 37(4):225-236.

[3] Fross, D. and Wilken, D. 2006. Ceanothus. Timber Press, Portland Oregon.

organisms ... damage or kill plants in poorly drained soils. Frequent summer irrigation and warm soil temperatures favor these pathogens."

The failure of the analysis to correctly identify these basic life history and cultural requirements for *Ceanothus* species, in general, indicates a lack of familiarity and knowledge of the genus. Beyond this, there is absolutely no information presented in the MND that is specific to *C. roderickii* regarding its life cycle or cultural requirements or any discussion about how such information is relevant to a translocation project.

IV. "No net loss" of individual *C. roderickii* plants can not be assured.

A. The mitigation measures proposed are not well defined.

Revised mitigation measures 13 and 18-22 identify the actions proposed to mitigate the impacts to *C. roderickii*. These actions are to establish an on-site preserve, collect and root cuttings, and transplant cuttings to the site. The measures do not specify how or if the site will be prepared for planting, how the planting will be undertaken, or what the ongoing cultural practices will be for the site. Aside from mentioning the installation of a temporary irrigation system, the specific practices that will be used to ensure the survival of the cuttings are not identified.

As reported in Howald (1996, p. 311)[4], the California Department of Fish and Game adopted translocation guidelines in 1990. "These guidelines call for

- A legally binding mitigation agreement that commits the project proponent to complete all aspects of the mitigation program
- A written mitigation plan that spells out in detail the technical components of the mitigation plan
- Project specific performance criteria that must be approved by the CDFG
- Monitoring for a period of at least five years
- Performance secured through a letter of credit or other negotiable security
- Long-term habitat protection and management that is funded through an endowment fund"

Of these six elements, the proposed translocation strategy for *C. roderickii* fails to develop a detailed plan, lacks specific performance criteria that are approved by a wildlife agency, and fails to provide a performance bond. These missing elements are those that clearly define the action to be undertaken, establish expectations and provide financial insure that the outcomes will be achieved.

In addition to the absence of a clear description of the specific actions to be taken to site and maintain the transplanted cuttings, there is no information to suggest that these

[4] Howald, A. 1996. Translocation as a mitigation strategy: Lessons from California. In: Restoring Diversity: Strategies for Reintroduction of Endangered Plants. Falk, D. A., Millar, C. I, and Olwell, M. (eds.) Island Press, Covelo, California.

transplantation actions will be successful as a mitigation measure for *C. roderickii*, i.e. that the plants will survive transplantation over the long term to a location of the biologist's choosing. Information on the appropriate techniques and methods for successful transplantation are not well known for these species and development of such information is a specific action in the recovery plan. (U.S. Fish and Wildlife Service 2002, V-17).

B. The mitigation measures are untested.

Transplantation efforts of rare plant species have had mixed success rates. Howald (1996), in a review of forty-one translocation projects in California, found that 13 were determined by the project proponent to be unsuccessful, 7 had limited or partial success, 5 were successful, and the remainder were either in the planning stages or listed as ongoing. Of the 25 projects for which the project proponent was able to make a conclusion about success, only 20% of them were deemed "successful." "Success" in these cases was defined as the project proponent saw fit. As a result, it is not possible to know if their criteria for success are the same as the expectation stated for this project, i.e. no net loss of individuals. Information from the literature indicates that the success of transplantation projects, such as proposed in the amended MND, is far from assured.

Falk et al. (1996, p. 467)[5] point to a general lack of information available on the biology of rare plant species selected for reintroduction and note that "the published literature will rarely be sufficient to answer all relevant questions abut the ecology of a rare plant species proposed for reintroduction. Since these ecological relationships are especially germane to the process of reintroduction, it is unlikely that the practioner will have the desired scientific basis in hand. This leaves reintroduction planners in the position of making more or less educated guesses about the response of species, and makes the practice of restoration generally one of informed speculation. This predicament is most troubling in circumstances in which "failure" has significant consequences, such as critically threatened species, those for which limited resource material is available, or any situation involving the destructive tradeoff with an existing natural population." These very concerns have lead Falk et al. (2006, p. 456) and others to conclude that "reintroductions are fraught with uncertainty and difficulties and should be viewed as experiments. As such, it is unwise to rely on "successful" outcomes, given the risks of failure are significant."

Thus, the there is no information to support the claim that the mitigation measures will be successful. There is, however, significant information in the literature to indicate that the outcome of the mitigation measures is uncertain and that such efforts are considered by professionals to be experimental.

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[5] Falk, D. A., Millar, C. I, and Olwell, M. 1996. Guidelines for developing a rare plant reintroduction plan. In: Restoring Diversity: Strategies for Reintroduction of Endangered Plants. Falk, D. A., Millar, C. I, and Olwell, M. (eds.) Island Press, Covelo, California.

V. The project does not comply with the El Dorado County general plan.

As presently designed, the Congregate Project also conflicts with the general plan. General plan policy 7.4.1.1 states that "The County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment of ecological preserves **consistent with** County Code Chapter 17.71 and the USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002)." (Emphasis added) This policy commits to making projects approved by the County consistent with the recovery plan for the Pine Hill plant species. The Congregate Project compromises the recovery plan goals to stabilize and recover the Pine Hill plant species and as such is inconsistent with the general plan.

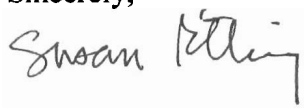
The amended MND claims that because "there is sufficient land available within the Recovery Plan area [that loss of the project lands] would not result in federal agencies being unable to acquire the amount of land set forth in the Recovery Plan." There are, however, issues beyond achieving an acreage target that are required by the recovery plan. These include securing a sufficient number of populations distributed throughout the gabbro soils study area. To address this, the recovery plan (p. II-7) established criteria for the acquisition of parcels with "comparable conservation value" that may be used to satisfy the recovery plan. Criteria include being "within the same preserve area" (in this case the Cameron Park unit) and meeting "the recovery acreage criteria and goals of this recovery plan." In the southern portion of the study area, development is the most intense and few areas that support rare plant occurrences remain available for conservation. The attached aerial photograph of the Cameron Park area (dated November 2003) illustrates this. (Attachment 4). The only remaining areas of any reasonable size that support rare plants cover about 260 acres and include the project parcels. Protection of this additional area has been identified in the recovery plan as necessary to prevent the extinction or significant decline of the species and as one of several steps that would be necessary to required to downlist the species. (Recovery plan, pp. III-29, V-1, V-4, V-13). Since there are no other lands that satisfy the occupancy and distribution conditions established by the recovery plan for the Cameron Park unit, there is no basis to the claim that "sufficient land" is available elsewhere.

The project also does not comply with general plan since the county itself has violated County Code 17.71. First, the county has failed to complete the annual review of the fees required by the chapter (17.71.240). The fee structure today is the same as was adopted in 1998. Between 1998 and 2006, land prices in this area have increased dramatically, yet no annual reviews have been undertaken and no changes have been made to the fee structure. This has resulted in insufficient funding being collected to acquire the land necessary to mitigate the loss of plants and habitat. Thus, the fee provided in the amended MND, on it face, is inadequate to mitigate the impacts because it reflects land prices from 1998 and not present land values. Second, the county has also failed to implement the code with respect to establishing conservation easements for projects that have adopted on-site set asides to achieve rare plant mitigation. Chapter 17.17.210 A. requires this, but it has not been done for any project. There are an unknown number of projects to which this applies. Each of these contributes in

significant ways to the failure of Chapter 17.71 to "provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat." Lastly, the county has failed to utilize the funds collected for the purposes of acquiring rare plant habitat. At your September 19, 2006, the board declined to approve the purchase of a rare plant property using the funds in the mitigation account. The reasons cited for the not approving the expenditure of funds appeared to include the belief that the county was no longer responsible for contributing to the plant preserve.

If you have further questions, please contact me at (530) 295-8210 or britting@earthlink.net.

Sincerely,



Susan Britting

Enclosures
Attachment 1 Letter of April 8, 2005 to Planning Department
Attachment 2 Timeline of communication with Planning Department
Attachment 3 CNDDB records for *C. roderickii*
Attachment 4 Aerial photo of Cameron Park Area
Attachment 5 Excerpts from "Restoring Diversity: Strategies ofr Reintroduction of Endangered Plants
Attachment 6 Recovery plan for Pine Hill plants (U.S. Fish and Wildlife Service 2002)

California Native Plant Society

PO Box 377 • Coloma • California • 95613

8 April 2005

Gregory L. Fuz
Planning Services
Building C
2850 Fairlane Court
Placerville, CA 95667

Dear Mr. Fuz:

The El Dorado Chapter of the California Native Plant Society (CNPS) has been involved over the years with the conservation of rare plants in the Pine Hill area. We have participated in a variety of activities to support conservation of these unique plants – guided walks, developing brochures, supporting direct protection of land, commenting on development projects and more.

I would like to meet with you and/or the appropriate staff to discuss El Dorado County's present approach to implementing the conservation measures defined in the rare plant ordinance and recently approved by the Board of Supervisors in their July 2004 adoption of the General Plan. I am aware of the ordinance establishing the ecological preserve overlay and the mitigation fee structure that pertains to lands designated in the ordinance. I would like to discuss the finer points of implementation such as:

1) Several years ago, a building permit was issued for a 10-acre property on Pine Hill in Mitigation Zone 0 but the County made no specific mitigation requirements of the land owner to protect rare plants. At the time, I was told that this was a mistake made by the County at their building permit office operating in the Cameron Park area.

What is the County doing to prevent this type of mistake from happening in the future?

2) The recently adopted general plan (July 2004) contains several policies directed towards conservation of the Pine Hill plants. In particular, Policy 7.4.1.1 (p. 292) states:

> The County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment and management of ecological preserves consistent with County Code Chapter 17.71 and the USFWS's *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).

Among other things, consistency with the recovery plan requires that the County recognize the reserve boundaries in the recovery plan. I have been informed that the County does not recognize lands identified by the recovery plan that occur outside of the

ecological preserve boundaries identified by the County ordinance. There is substantial acreage that occurs outside of the ecological preserve overlay which is critical to the persistence of these rare species.

How is the County's present implementation of the rare plant mitigation measures consistent with the adoption of Policy 7.4.1.1 regarding the recovery plan?

3) Have there been conservation easements recorded that are intended to satisfy the on-site mitigation requirements for Mitigation Zone 0. What is the County's process for monitoring these easements?

4) What development projects, including residential and commercial with the ecological preserve boundary, the recovery boundary and the gabbro soils study area are presently under review or consideration by the County?

Lastly, I would like to be included on the circulation list for all proposed land disturbing activities that fall with in the ecological preserve boundary, the recovery plan boundary and the gabbro soils study area and that require the County to issue a permit in order to complete the proposed activities.

I look forward to discussing these rare plant issues with you in the near future.

Sincerely,

Susan Britting
Conservation Chair
El Dorado Chapter

(530) 333-2679

Cc: Steve Hust
Peter Maurer

Attachment 2

Communication Timeline on Projects in the Gabbro Soils Study Area

Date	Action
4/8/05	I sent a letter to the county asking to be included on the circulation list for all projects in the gabbro study area. The county responded in part by meeting with me to discuss my letter. I never received notice of any projects.
8/24/06	Approved by planning commission
8/25/06	I sent a letter to the county requesting information on Congregate Project
9/1/06	The county sent to me the packet that was prepared for the Planning Commission meeting on 8/24/06. There was no information in the packet to indicate that a 30-day comment period on the MND had occurred or had been initiated.
9/25/06	A county planner notified me by email that a hearing was set for the Congregate Project for 2 pm on 9/26/06.
9/26/06	The county planning staff made available to me at the BOS meeting a memo dated 9/25/06 describing additional mitigation measures for *Ceanothus roderickii*. These measures are similar but not identical to those included in the MND amended on 10/13/06.
10/10/06	I emailed a county planner to ask for any amended documents. None were available.
10/13/06	A county planner emailed to me the amended MND along with a memo form the County Planning Director.
10/17/06	Item on BOS agenda: Congregate Project

Attachment 3

Ceanothus roderickii

Pine Hill ceanothus — **Element Code:** PDRHA04190

Status
Federal: Endangered
State: Rare

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: CHAPARRAL, CISMONTANE WOODLAND.
Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630M.

Occurrence No. 1 **Map Index:** 12327 **EO Index:** 4182
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-05-27
Site: 1994-05-27
Record Last Updated: 1994-12-06

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.66157° / -120.95834°
UTM: Zone-10 N4281199 E677638
Area: 202.8 acres
Elevation: 1,440 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 09N
Range: 09E
Section: 02 **Qtr:** XX
Meridian: M

Location: BETWEEN SHINGLE SPRINGS AND CAMERON PARK ALONG BOTH SIDES OF HIGHWAY 50.
Location Detail: GENERAL DISTRIBUTION IN THIS AREA IS BOUNDED BY DUROCK ROAD TO THE SOUTH, THE END OF PALMER DRIVE TO THE WEST, AND BY MANY OAKS LANE TO THE NORTH AND EAST.
Ecological: OPENINGS IN CHAPARRAL ON RESCUE SERIES SOILS. ASSOCIATED WITH CALYSTEGIA STEBBINSII, WYETHIA RETICULATA, SENECIO LAYNEAE, CEANOTHUS LEMMONII, ADENOSTOMA FASCICULATUM, AND ARCTOSTAPHYLOS VISCIDA.
Threat: RESIDENTIAL AND COMMERCIAL DEVELOPMENT, HIGHWAY MAINTENANCE, DUMPING, ORV USE, AND EROSION.
General: HUNDREDS OF PLANTS IN MANY COLONIES ALONG EITHER SIDE OF THE ROAD. SOME PLANTS WITHIN CALTRANS RIGHT-OF-WAY.
Owner/Manager: PVT, CALTRANS

Occurrence No. 2 **Map Index:** 12276 **EO Index:** 8207
Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown

Dates Last Seen
Element: 1987-06-18
Site: 1987-06-18
Record Last Updated: 1993-02-04

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.66053° / -120.97204°
UTM: Zone-10 N4281057 E676448
Area: 12.1 acres
Elevation: 1,330 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 09N
Range: 09E
Section: 03 **Qtr:** SE
Meridian: M

Location: ALONG HWY 50 ABOUT 3 MILES W OF SHINGLE SPRINGS.
Location Detail: 1/2 MILE WEST OF CAMERON SPRINGS EXIT ON NORTH SIDE OF HWY 50, NORTH OF FRONTAGE ROAD.
Ecological: ASSOCIATED WITH QUERCUS DOUGLASII, CERCIS OCCIDENTALIS, ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, TOXICODENDRON DIVERSILOBUM, ANNUAL GRASSES, SENECIO LAYNEAE AND CALYSTEGIA STEBBINSII.
Threat: ROAD WIDENING AND HERBICIDE SPRAYING. HIGH URBANIZATION PRESSURE.
General: TYPE LOCALITY. CALYSTEGIA STEBBINSII (AND CEANOTHUS?) AT THIS SITE MAY HAVE BEEN EXTIRPATED.
Owner/Manager: PVT

Occurrence No. 4 **Map Index:** 12229 **EO Index:** 12224
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1986-11-14
Site: 1986-11-14
Record Last Updated: 1996-01-10

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.72049° / -120.98893°
UTM: Zone-10 N4287679 E674833
Area: 82.2 acres
Elevation: 2,059 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 10N
Range: 09E
Section: 16 **Qtr:** SE
Meridian: M

Location: PINE HILL SUMMIT AND ALONG ROAD BELOW PINE HILL LOOKOUT.
Ecological: ROCKY LOAM OVER GABBRO; ASSOCIATED WITH FREMONTODENDRON DECUMBENS AND WYETHIA RETICULATA.
General: AREA BURNED IN 1983 AS PART OF RARE PLANT REGENERATION STUDY; GOOD REGENERATION AFTER BURN. LESS THAN 100 PLANTS SEEN IN 1985; 2000 IN 1986.
Owner/Manager: DFG-PINE HILL ER, CDF

Ceanothus roderickii

Pine Hill ceanothus

Element Code: PDRHA04190

Status
Federal: Endangered
State: Rare

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: CHAPARRAL, CISMONTANE WOODLAND.
Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630M.

Occurrence No. 5 **Map Index:** 12162 **EO Index:** 4345

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-07-22
Site: 1993-07-22
Record Last Updated: 1995-01-03

Quad Summary: Pilot Hill (3812171/527D)
County Summary: El Dorado

Lat/Long: 38.76292° / -121.02554°
UTM: Zone-10 N4292319 E671548
Area: 317.6 acres
Elevation: 950 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 11N
Range: 08E
Section: 31 **Qtr:** XX
Meridian: M

Location: SOUTH OF SOUTH FORK AMERICAN RIVER, EAST OF SALMON FALLS ROAD. EAST OF FOLSOM LAKE .
Location Detail: EXTENDING FROM EAST 1/2 OF SECTION 35 TO NORTH 1/2 OF SECTION 31 AND SW 1/4 OF SECTION 30.
Ecological: ON RESCUE SOILS IN CHAPARRAL. ASSOCIATED WITH WYETHIA RETICULATA, CALYSTEGIA STEBBINSII, CHLOROGALUM GRANDIFLORUM AND HELIANTHEMUM SUFFRUTESCENS.
Threat: ORV ACTIVITY, RECREATIONAL TARGET SHOOTING, DEVELOPMENT ARE THREATS.
General: INCLUDES FORMER OCCURRENCES #'S 7, 8, 12, AND 13. MORE THAN 1000 PLANTS OBSERVED IN NORTHERNMOST OPRTION OF OCCURRENCE IN 1993. UNKNOWN HOW MANY PLANTS TOTAL.
Owner/Manager: PVT

Occurrence No. 6 **Map Index:** 22731 **EO Index:** 13803

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1989-07-12
Site: 1989-07-12
Record Last Updated: 1994-12-06

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.68197° / -120.97890°
UTM: Zone-10 N4283423 E675799
Area: 68.0 acres
Elevation: 1,300 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 10N
Range: 09E
Section: 34 **Qtr:** NW
Meridian: M

Location: EAST OF CAMERON PARK AIRPORT, NORTHEAST OF THE JUNCTION OF MEDER ROAD AND CAMERON PARK DRIVE.
General: PART OF SITE DISTURBED BY DEVELOPMENT; ASSUMING SOME HABITAT STILL EXISTS IN 1990'S.
Owner/Manager: PVT

Occurrence No. 9 **Map Index:** 12301 **EO Index:** 8184

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1987-06-26
Site: 1987-06-26
Record Last Updated: 1996-01-02

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.67211° / -120.96857°
UTM: Zone-10 N4282349 E676722
Area: 105.5 acres
Elevation: 1,500 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 10N
Range: 09E
Section: 35 **Qtr:** SW
Meridian: M

Location: APPROX ONE MI N OF CAMERON PARK TURN OFF FROM HWY 50, NEAR SHINGLE SPRINGS.
Location Detail: 1/2 MILE SOUTH OF MEDER ROAD AND 3/4 MILE NORTHEAST OF HWY 50 AT CAMERON PARK DRIVE.
Ecological: GABBROIC SOILS IN OPEN AREAS OF CHAPARRAL. ASSOCIATED WITH ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA FASCICULATUM, WYETHIA RETICULATA AND SENECIO LAYNEAE.
Threat: DEVELOPMENT EXPANDING NEARBY.
Owner/Manager: PVT

Ceanothus roderickii

Pine Hill ceanothus — **Element Code:** PDRHA04190

Status
Federal: Endangered
State: Rare

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: CHAPARRAL, CISMONTANE WOODLAND.
Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630M.

Occurrence No. 10 **Map Index:** 12313 **EO Index:** 18657
Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1984-05-25
Site: 1984-05-25
Record Last Updated: 1996-01-02

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.69107° / -120.96031°
UTM: Zone-10 N4284469 E677393
Radius: 1/5 mile
Elevation: 1,440 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 09E
Section: 26 **Qtr:** SW
Meridian: M

Location: S OF WHITE OAK FLAT, APPROX TWO MI N OF US HWY 50, NEAR SHINGLE SPRINGS.
Ecological: BULLDOZED AREA IN OAK WOODLAND. ASSOCIATED WITH BERBERIS SP., WYETHIA RETICULATA, AND CALYSTEGIA STEBBINSII.
Threat: DEVELOPMENT NEARBY.
Owner/Manager: UNKNOWN

Occurrence No. 11 **Map Index:** 12265 **EO Index:** 22531
Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-06-07
Site: 1994-06-07
Record Last Updated: 1995-10-30

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.67404° / -120.97783°
UTM: Zone-10 N4282546 E675912
Area:
Elevation: 1,400 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POLYGON
Township: 10N
Range: 09E
Section: 34 **Qtr:** SW
Meridian: M

Location: SUDBURY ROAD, ABOVE AND EAST OF CAMERON PARK DRIVE, CAMERON PARK.
Location Detail: ALONG TOPS OF ROAD-CUT BANK ON EDGES OF LAWNS DRAPING DOWN TOWARDS THE ROAD. ALSO AROUND EID RESERVOIR OFF OF VERANO WAY.
Ecological: ON RESCUE SOILS IN GABBROIC MIXED CHAPARRAL. ASSOCIATED WITH SECECIO LAYNEAE, HELIANTHEMUM SUFFRUCTESCENS, AND CHLOROGALUM.
Threat: DEVELOPMENT, LAWN WATERING, EID IMPROVEMENTS, EASY ROAD ACCESS, AND DUMPING.
General: LESS THAN 50 PLANTS ALONG ROAD IN 1985, 3 PLANTS AROUND RESERVOIR IN 1994.
Owner/Manager: PVT, EL DORADO IRR DIST

Occurrence No. 14 **Map Index:** 22727 **EO Index:** 27224
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-05-20
Site: 1992-05-20
Record Last Updated: 1993-02-04

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.69666° / -120.94956°
UTM: Zone-10 N4285110 E678315
Area:
Elevation: 1,350 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POLYGON
Township: 10N
Range: 09E
Section: 26 **Qtr:** NE
Meridian: M

Location: 1 KM (0.7 MI) SOUTH OF RESCUE.
Location Detail: 2701 CARLSON DRIVE, SHINGLE SPRINGS. LOCATED IN THE E 1/2 OF THE NE 1/4 OF SECTION 26. MOST PLANTS WERE FOUND ON THE SOUTH HALF OF THE PROPERTY.
Ecological: GROWING IN RESCUE VERY STONY SANDY LOAM SOILS ALONG AN ECOTONE BETWEEN OAK WOODLAND AND CHAPARRAL. OTHER RARE PLANTS AT SITE INCLUDE GALIUM CALIFORNICUM SSP. SIERRAE AND WYETHIA RETICULATA.
Threat: SITE HAS BEEN PARTIALLY CLEARED FOR DEVELOPMENT OF RESIDENTIAL LOTS.
General: RARE FLORA MAY BE PROTECTED ON SITE BY AGREEMENTS WITH PROPERTY-OWNERS REGARDING LAND USE.
Owner/Manager: PVT

Ceanothus roderickii

Pine Hill ceanothus — **Element Code:** PDRHA04190

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G2	**CNPS List:** 1B.2
State: Rare	**State:** S2.1	

Habitat Associations

General: CHAPARRAL, CISMONTANE WOODLAND.

Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630M.

Occurrence No. 15 **Map Index:** 23923 **EO Index:** 7203

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-05-22
Site: 1994-05-22
Record Last Updated: 1995-01-03

Quad Summary: Pilot Hill (3812171/527D)
County Summary: El Dorado

Lat/Long: 38.76566° / -121.00806°
UTM: Zone-10 N4292656 E673061
Area: 15.9 acres
Elevation: 1,000 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 11N
Range: 09E
Section: 30 **Qtr:** SE
Meridian: M

Location: NORTH OF AMERICAN RIVER ON SOUTH FACING RIDGE ALONG BEND IN RIVER WEST OF WEBER CREEK.

Location Detail: ALONG RECENTLY CUT (APPROX. 5 YEARS) FIRE BREAK ALONG RIDGE WHICH EXTENDS FROM 1220 KNOLL SOUTH TO THE RIVER.

Ecological: GROWING IN GABBRO CHAPARRAL PLANT ASSOCIATION WITH CALYSTEGIA STEBBINSII, HELIANTHEMUM SUFFRUTESCENS, WYETHIA RETICULATA, & CHLOROGALUM GRANDIFLORUM IN ADDITION TO ARCTOSTAPHYLOS VISCIDA, ADENOSTOMA, RHAMNUS ILICIFOLIA, & QUERCUS DURATA.

General: 300 PLANTS SEEN IN 1994. PART OF POPULATION WILL BE BURNED IN 1994 CDF CONTROLLED BURN. GRADED FIRE BREAK GOES THROUGH POPULATION. PREVIOUS CONTROLLED BURN ON ADJACENT RIDGETOP HAS RARE GABBROIC ASSOCIATES BUT NO CEANOTHUS RODERICKII.

Owner/Manager: BLM-FOLSOM RA

Occurrence No. 16 **Map Index:** 22721 **EO Index:** 16850

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1986-XX-XX
Site: 1986-XX-XX
Record Last Updated: 1993-01-15

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.71896° / -120.99948°
UTM: Zone-10 N4287489 E673919
Radius: 80 meters
Elevation: 1,480 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 09E
Section: 16 **Qtr:** SW
Meridian: M

Location: WEST OF PINE HILL, 0.8 KM (0.5 MI) WEST OF LOOKOUT TOWER.

General: MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE; NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Occurrence No. 17 **Map Index:** 22725 **EO Index:** 16851

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1986-XX-XX
Site: 1986-XX-XX
Record Last Updated: 1993-02-04

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.71604° / -120.98869°
UTM: Zone-10 N4287186 E674864
Radius: 80 meters
Elevation: 1,680 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 09E
Section: 16 **Qtr:** SE
Meridian: M

Location: SOUTH OF PINE HILL, 0.4 KM (0.25 MI) SSE OF LOOKOUT TOWER.

General: MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE; NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Ceanothus roderickii

Pine Hill ceanothus — **Element Code:** PDRHA04190

Status
Federal: Endangered
State: Rare

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: CHAPARRAL, CISMONTANE WOODLAND.
Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630M.

Occurrence No. 18 **Map Index:** 22722 **EO Index:** 8071
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1986-XX-XX
Site: 1986-XX-XX
Record Last Updated: 1993-02-04

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.71464° / -120.99475°
UTM: Zone-10 N4287019 E674341
Radius: 80 meters
Elevation: 1,600 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 09E
Section: 16 **Qtr:** S
Meridian: M

Location: SW OF PINE HILL, 0.6 KM (0.4 MI) FROM LOOKOUT TOWER.
Location Detail: ON FAR SOUTH BORDER OF SECTION, ALMOST DIRECTLY IN CENTER OF SECTION LINE.
General: MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE; NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Occurrence No. 19 **Map Index:** 22723 **EO Index:** 20651
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1986-XX-XX
Site: 1986-XX-XX
Record Last Updated: 1993-01-15

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.70944° / -120.99565°
UTM: Zone-10 N4286440 E674275
Radius: 80 meters
Elevation: 1,440 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 09E
Section: 21 **Qtr:** NW
Meridian: M

Location: SSW OF PINE HILL, 1.2 KM (0.8 MI) FROM LOOKOUT TOWER.
Location Detail: MAPPED UNDER TRANSMISSION LINES NEAR DIRT ROAD IN NORTH 1/2 OF SECTION 21.
Ecological: SENECIO LAYNEAE IS ALSO MAPPED AT THIS LOCATION.
General: MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE; NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Occurrence No. 20 **Map Index:** 22145 **EO Index:** 16646
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1986-XX-XX
Site: 1986-XX-XX
Record Last Updated: 1993-01-25

Quad Summary: Clarksville (3812161/511A)
County Summary: El Dorado

Lat/Long: 38.73531° / -121.05130°
UTM: Zone-10 N4289207 E669375
Radius: 80 meters
Elevation: 860 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 08E
Section: 12 **Qtr:** SW
Meridian: M

Location: WEST OF SWEETWATER CREEK, 0.5 KM (0.25 MI) NW OF LANDING STRIP AND 2.5 KM (1.5 MI) NNE OF LIVE OAK SCHOOL.
Location Detail: LOCATED IN THE NE 1/4 OF THE SW 1/4 OF SECTION 12.
General: MAP DETAIL IS ONLY SOURCE OF INFORMATION FOR THIS SITE.
Owner/Manager: UNKNOWN

Ceanothus roderickii

Pine Hill ceanothus — **Element Code:** PDRHA04190

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G2	**CNPS List:** 1B.2
State: Rare	**State:** S2.1	

Habitat Associations

General: CHAPARRAL, CISMONTANE WOODLAND.

Micro: GABBROIC SOILS; OFTEN IN "HISTORICALLY DISTURBED" AREAS WITH AN ENSEMBLE OF OTHER RARE PLANTS. 260-630M.

Occurrence No. 21 **Map Index:** 22764 **EO Index:** 8065

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-07-25
Site: 1992-07-25
Record Last Updated: 1993-02-26

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.67658° / -120.95492°
UTM: Zone-10 N4282871 E677898
Radius: 80 meters
Elevation: 1,450 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 10N
Range: 09E
Section: 35 **Qtr:** SE
Meridian: M

Location: CAMERON PARK, 2 KM (1.3 MI) NE OF HIGHWAY 50-CAMERON PARK DRIVE INTERCHANGE.

Location Detail: LOCATED AT THE SOUTHEAST CORNER OF MEDER ROAD AND BROADLEAF COURT, WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 35.

Ecological: GROWING WITHIN CHAPARRAL WHICH GRADES INTO OAK WOODLAND TO THE NORTH. PLANTS OCCUR ON RED GABBRO SOILS FOLLOWING THE BED OF AN INTERMITTENT STREAM UNDER THE SHADE OF ARCTOSTAPHYLOS VISCIDA AND ADENOSTOMA FASCICULATUM.

Threat: SITE IS LIKELY TO BE DEVELOPED, PERMIT APPLICATION HAS BEEN SUBMITTED.

General: APPROXIMATELY 200 PLANTS SEEN IN 1992. TWO OTHER SPECIAL PLANTS, SENECIO LAYNEAE AND WYETHIA RETICULATA, ARE LOCATED NEARBY.

Owner/Manager: PVT

Occurrence No. 22 **Map Index:** 30661 **EO Index:** 3128

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-07-22
Site: 1994-07-22
Record Last Updated: 1994-12-06

Quad Summary: Shingle Springs (3812068/510B)
County Summary: El Dorado

Lat/Long: 38.67420° / -120.95349°
UTM: Zone-10 N4282610 E678029
Area: 6.1 acres
Elevation: 1,475 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 10N
Range: 09E
Section: 35 **Qtr:** SE
Meridian: M

Location: SOUTH END OF BRIDGET BRAE ROAD, SHINGLE SPRINGS.

Location Detail: MAPPED WITHIN THE SW 1/4 OF THE SE 1/4 OF SECTION 35.

Ecological: CHAPARRAL AND OAK WOODLAND DOMINATED BY ARCTOSTAPHYLOS VISCIDA AND QUERCUS DOUGLASII WITH Q. WISLIZENII. ASSOCIATED WITH CERCIS, SALVIA SONOMENSIS, CEANOTHUS LEMONII, RHAMNUS, ADENOSTOMA, HETEROMELES, ETC. RESCUE SERIES SOILS.

Threat: DEVELOPMENT; PROPERTY IS PROPOSED TO BE SUBDIVIDED INTO ONE ACRE PARCELS.

General: TWO CLUSTERS OF PLANTS OBSERVED IN 1994.

Owner/Manager: PVT

Attachment 4

Cameron Park Area
AirPhoto USA dated 2003