

# Exhibit F

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## Exhibit F - 1

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Jan & Kristi van Greunen  
6820 Long Valley Spur  
Castroville, CA 95012

RE: 129-201-052, 13 acre lot proposed for lot line readjustment into 5 parcels

Dear Jan and Kristi,

It was a real pleasure meeting you and touring around your beautiful property. As we discussed the purpose for the visit was to survey and evaluate each of the 5 potential parcels that you have identified as potential home sites. We looked at the location for each building site in regards to view sheds from without and within the property, and biology. In particular, we looked carefully for the special status species known to occur in this part of the county to determine if they were present and if so what would be necessary in locating the building envelopes to completely avoid impacts to those species. Previous to our visit I prepared a target list for species to look for by querying the California Natural diversity Database (CNDDDB) and the California Native Plant Society inventory of rare, threatened and endangered species. Your property is in the Prunedale quadrant of the USGS mapping system. The Prunedale quad is a bit of a hotspot for the plant community known as central Maritime Chaparral and all the individual species that are found within it. A complete list of the CNDDDB output species and habitat types is attached in appendix #1. Based on this query, key species that have the potential to occur on this project site include The California Tiger Salamander (*Ambystoma californiense*), Santa Cruz long toed Salamander (*Ambystoma macrodactylum croceum*), California red legged frog (*Rana draytonii*), California Clapper rail (*Rallus longirostris obsoletus*), Hookers manzanita (*Arctostaphylos hookeri* ssp. *hookeri*), Pajaro manzanita (*Arctostaphylos pajaroensis*), Monterey Spineflower (*Chorizanthe pungens* var. *pungens*), Seaside Birds beak (*Cordylanthus rigidus* ssp. *littoralis*), Robust spineflower (*Chorizanthe robusta* var. *robusta*), Yadon's rein orchid (*Piperia yadonii*), Santa Cruz tar plant (*Holocarpha macradenia*) and the plant community Central Maritime chaparral. Given the inland location it is clear that the Clapper rail, a Shore bird will not be an issue and other species, primarily dependent on riparian or wetland habitat will be easily ruled out. But those dependent on woodland and chaparral conditions would have to be considered. With the exception of late blooming Santa Cruz tar plant and Congdon's tar plant the timing of the visit was suitable for being able to locate and identify flowering parts of all the plants that could potentially occur on the property.

The proposed subdivision is on the legal parcel on a ridge that gently slopes to the Southwest above Long Valley road in the Elkhorn highlands. The 5 parcel project sits at an elevation ranging from approximately 300 up to about 450 feet on a sandstone ridge that has portions of deep sandy soil and other locations where the rock substrate is exposed at the surface.. The property is a mosaic of plant communities including annual grassland, oak woodland and central maritime chaparral readily apparent from aerial photographs and confirmed by walking the site. Annual grasslands are composed of mostly nonnative annual grasses introduced into California from other parts of the world. This is the dominant plant community for the entirety of Parcels 3 and 4. Weedy species like wild oats, riggut brome and rattlesnake grass are found in a continuous stand dotted occasionally by Coyote bush and poison

hemlock. Oak woodland is less frequent on the site and is dominated by Coast live oak and typical understory components Snowberry, Toyon, coffee berry, evergreen huckleberry, sticky monkey flower and the ubiquitous poison oak. This community is found along the northern edge and at the southwestern point of the site and in both locations appears to be transitional from the Central maritime chaparral. Central maritime chaparral occupies an area at the west edge of the property between parcels 1,2 and 3 and larger swaths east of parcel 4 and 5. It is the most sensitive habitat type on the property and will be discussed in greater detail below.

You have already done a reasonable job of establishing the general boundaries of these plant communities as you have drawn your tentative plans for the subdividing of the property. Your building sites are clustered within primarily annual grassland and the easement areas for conservation and hiking pathways are primarily within the Central maritime chaparral and oak woodland. As we discussed in our walk around the property it may be possible to move your building envelopes for parcels 1 and 2 slightly back to the north to avoid any possibility of encroaching on the maritime chaparral down slope and being too visible on the side of the ridge from the surrounding areas. Before getting into more detail on individual sites and the native species on or near them I will first address the nonnative species.

#### **Weed eradication efforts**

At the opposite end of the spectrum from the rare, threatened and endangered species that could occur on your property are the various weeds that do and in particular those that you have been working very hard to eradicate in the central maritime chaparral and oak woodland and throughout the entire site.



The plant dominating the view in the above photo is Pampas or jubata grass (*Cortaderia jubata*). Jubata grass is native to northern Argentina and the Andes of Bolivia, Peru, Chile, and Ecuador (Costas-Lippmann 1977). In its native range it can be found from sea level to elevations greater than 11,000 feet (3,400 m). It was first cultivated in France and Ireland from seed collected in Ecuador (Costas-Lippmann 1977). It is not clear how or when it was introduced into California, but it may have come through France via the horticultural trade (Madison 1992). *Cortaderia jubata* (jubatagrass) is a large perennial grass (family Poaceae) found along the coast of California and in the Coast Ranges. Jubatagrass favors dunes, bluffs, and disturbed areas, including inland areas where temperatures are moderated by fog. It was introduced as an ornamental plant and for erosion control. Each plume produces up to 100,000 seeds that are widely dispersed by wind and develop without fertilization. Jubata grass quickly colonizes bare ground, but establishment is generally poor where the seedlings must compete with other grasses or sedges.

Having seen the patches of jubata grass still persisting on the property I can only imagine how dense it was when you first started your eradication efforts. As I am sure you already know from experience, the most critical aspect of your eradication efforts is the prevention of seed production each year. Even if you are unable to cut, dig or spray herbicide on a particular plant it is worth taking the time to cut off the flowering plumes on it before they develop seed. I do not believe we will ever be able to completely eradicate this invasive plant from the Central coast region, but you are doing yourselves and your neighbors a significant favor by putting in that effort now. As you move toward realization of the subdivision and development of home sites it may be wise to include some conditions for home owners that this particular plant not be allowed to persist on the individual lots. This can be a part of the easement wording in regards to the preservation of the Central maritime chaparral plant community that this plant so readily invades. It is interesting that the Jubata grass has a difficult time establishing in the dense cover of grasslands, but has no such difficulty in often bare mineral soils between the shrubs of the chaparral.

### **Sensitive species and habitat**

As previously discussed, the property supports a number of sensitive plant species that are associated with and indicative of the plant community known as Central maritime chaparral. Specifically these stands are part of the *Arctostaphylos pajaroensis* shrubland alliance called Pajaro manzanita chaparral. This habitat has the highest possible rarity ranking with fewer than 6 occurrences worldwide. Co-dominant with the Pajaro manzanita are Chamise, Hookers manzanita, brittle leaf manzanita, Coyote bush, Monterey ceanothus, monkey flower, Coffee berry, Toyon, Deerweed, Black sage and poison oak. This plant community frequently supports five rare plants including two federally listed ones. In addition to the rare manzanita species, Monterey spine flower, Eastwood's golden bush and Yadon's rein orchid are typical understory herbaceous components. The Monterey Spine flower and Yadon's rein orchid are federally listed as Threatened and Endangered respectively. Monterey spine flower was found on the property south of proposed parcel 5 in sandy open soil. No Yadon's rein orchid or Eastwood's golden bush was found during my survey. An additional species found on site in openings between the larger shrubs of the Central maritime chaparral is the small-leaved lomatium (*Lomatium parvifolium*). This small

perennial is listed by the California Native Plant society as a species to watch on List 4 and is considered uncommon and fairly endangered in California.

Preservation of these species individually and the plant community as a whole should be prioritized in the final design of the building sites, roads and driveways, but it should be pointed out that long term management of this dynamic , fire dependent habitat will require some potential adaptation in the future. Oak and Pine trees tend to encroach upon the maritime chaparral as the stands age and mature between fire events (multiple decades or more) and will eventually shade out the *Arctostaphylos* and *Ceanothus* species and reduce the diversity of the plant species composition. Without natural disturbance like fire, these stands will not have the same composition, density or height that they have today. It is not possible to manage these areas as static components of the natural landscape. Research is ongoing as to how provide occasional manmade disturbances that will potentially renew and "reset the clock" on the successional process in plant communities such as this. For the time being, removing nonnative invaders and preserving as open space the stands of maritime chaparral on the site are important to the future of the species and community. This includes the large stand in the western most part of the property as well as fragments on the west edge of the existing dirt road between parcel 4 and 5 and significant stands east of that dirt road and over to the steeper slopes above the farmland easement. The Monterey spine flower that was identified during the survey is in this eastern portion and is indicative of the possibility that it exists in the seed bank throughout greater areas of this easement. Ironically, this species is a disturbance dependent annual that will typically only germinate in significant quantities when the sandy soil it prefers is somehow moved by wind, water, fire or grading or other human soil disturbance. It is not unusual for areas that have been surveyed and found lightly occupied or vacant to be literally covered with this and other unique native annuals in the first spring post grading. This only further emphasizes the wisdom of keeping your development zone and specific building envelope locations in long since invaded and disturbed areas that you have chosen and avoiding development beyond walking trails in those areas with whole compositions or fragments of the central maritime chaparral.

No other special status species were found on the project site. Following is list of the species that have a potential to occur on the property with additional details about habitat needs, physical features and characteristics and whether or not they were found on the property.

#### van Greunen CNDDDB Output for Prunedale Quad. PLANT, ANIMAL & HABITAT DESCRIPTIONS

##### ANIMAL SPECIES

***Actinemys marmorata* – Western pond turtle.** California Species of Special Concern.

The State's only abundant native turtle, the western pond turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Elevation range extends from near sea level to 1430 m (4690 ft) (Jennings and Hayes 1994). Associated with permanent or nearly permanent water in a wide variety of habitat types. Individuals normally associate with permanent

ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams. No Suitable habitat on site.

***Ambystoma californiense* - California Tiger salamander.** Federal Threatened, State Threatened. Adult tiger salamander is a semi-permanent resident of annual grasslands and valley and foothill woodlands, and is occasionally found along streams. Adults spend most of the year underground in mammal burrows, logs or rocks, typically within 500 yards or closer to breeding locations. The first heavy rains of winter initiate the migration of adults to permanent and temporary ponds (Stebbins 1985). Larvae require ponds, lakes or vernal pools usually in grasslands. Ponds stocked with mosquito fish are known to have reduced or eradicated populations altogether. No suitable breeding habitat on site. Marginal upland habitat on site.

***Ambystoma macrodactylum croceum* – Santa Cruz long toed salamander.** Federal Endangered, State Endangered, DFG Fully Protected. A small ambystomatid salamander. Differs from the other four subspecies of long-toed salamanders by a series of discrete, irregular patches of dull orange or metallic yellow markings on its dorsal side and by greatly reduced dorsal head markings of small scattered dots, which are often absent, anterior to the eyes. The ventral surface is sooty black, with bluish to whitish flecks on the sides. Habitat Comments: Coastal woodland and chaparral near ponds and marshes used for breeding (California Department of Fish and Game 1990). Shade and abundant soil humus are prime requirements. Spends most of time underground in animal burrows or in spaces among root systems of woody plants. Breeds in shallow ponds with abundant submerged vegetation; ponds fill in winter and spring, dry by late summer, must hold water for at least 90 days. Eggs are laid on submerged stalks of spike rush or similar aquatic plants. Known in only a few breeding locations in coastal Southern Santa Cruz and Northern Monterey Counties. No suitable habitat on site.

***Athene cunicularia* – Burrowing owl.** California Species of Special Concern.

A yearlong resident of open, dry grassland and desert habitats and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Formerly common in appropriate habitats throughout the state, excluding the humid northwest coastal forests and high mountains. Numbers markedly reduced in recent decades. Present on the larger offshore islands. Found as high as 1600 m (5300 ft) in Lassen Co.

Uses rodent or other burrow for roosting and nesting cover. Moves perch to thermoregulate; perches in open sunlight in early morning, and moves to shade, or to burrow, when hot (Coulombe 1971). Reproduction: Usually nests in old burrow of ground squirrel, or other small mammal. Frequents open grasslands and shrublands with perches and burrows. Some marginal habitat on site.

***Elanus leucurus* – White tailed kite.** DFG Fully Protected.

Common to uncommon, yearlong resident in coastal and valley lowlands; rarely found away from agricultural areas. Inhabits herbaceous and open stages of most habitats mostly in cismontane California. Has extended range and increased numbers in recent decades.

Uses herbaceous lowlands with variable tree growth and dense population of voles (Waian and Stendell 1970). Substantial groves of dense, broad-leaved deciduous trees used for nesting and roosting.

Preys mostly on voles and other small, diurnal mammals, occasionally on birds, insects, reptiles, and amphibians. Forages in undisturbed, open grasslands, meadows, farmlands and emergent wetlands. Soars, glides, and hovers less than 30 m (100 ft) above ground in search of prey. Slowly descends vertically upon prey with wings held high, and legs extended; rarely dives into tall cover (Thompson 1975). Potential nesting habitat nearby, suitable habitat on site and adjacent.

***Rallus longirostris obsoletus* – California clapper rail.** Federal Endangered, State Endangered, DFG Fully Protected.

Locally common yearlong in coastal wetlands and brackish areas around San Francisco, Monterey, and Morro bays (California clapper rail, *R. l. obsoletus*); in coastal saline emergent wetlands along southern California from Santa Barbara Co. to San Diego Co. (light-footed clapper rail, *R. l. levipes*); and April through September in freshwater and brackish emergent wetlands along the Colorado River from Needles southward, and around Salton Sea (Yuma clapper rail, *R. l. yumanensis*). Requires emergent wetlands and tidal sloughs. Occasionally uses ecotone between wetland and adjacent upland vegetation. No habitat on site.

***Rana draytonii* - California red-legged frog.** Federal Threatened, California Species of Special Concern. In the coast range, requires ephemeral or permanent water, ponds, reservoirs, or creeks (with slow moving pools during the winter/spring) with water that lasts at minimum until the end of June for reproduction (Reis 1999a). During the late summer or fall, adult frogs are known to utilize a variety of upland habitat types with either leaf litter or mammal burrows. Adult frogs are known to travel as far as 3 miles overland in non-riparian habitats to an aquatic site. No suitable breeding habitat on site or nearby. No suitable habitat on site

***Reithrodontomys megalotis distichlis* - Salinas harvest mouse** *Reithrodontomys megalotis distichlis* occurs in the region of Monterey Bay (Hall, 1981), in fresh and brackish water wetlands and probably in adjacent upland grasslands. It was included on the working list because of its restricted distribution and the high rate of urbanization in that area. Most of the wetland communities where these mice live are under protection. There is no evidence that they are threatened. No habitat on site.

***Sorex ornatus salarius* - Monterey shrew.** California Species of Special Concern. *Sorex ornatus salarius* occupies a variety of riparian, wetlands and upland terrestrial communities in the vicinity of the Salinas River Delta (Owen and Hoffmann, 1983; unpubl. data). Although the region is undergoing intense development, I could not find information documenting its current status. The relatively wide range of communities providing habitat for *S. o. salarius* suggests that it is probably not jeopardized. No habitat on site.

***Tryonia imitator* - California brackishwater snail.** Global concern, no State or Federal protection. Small aquatic snail that lives in tidal flushed brackish water of estuaries and Bays in Coastal Central California. No habitat on site.

## PLANT SPECIES

***Arctostaphylos hookeri ssp. hookeri* - Hooker's manzanita.** CNPS List 1B.2. Shrub, mat- to mound-like, generally < 1 m, sometimes 2–3 m; no burl. **Ecology:** Coastal scrub, woodland, Maritime chaparral. Flowers February to April.

**Elevation:** < 600 m.

**Bioregional distribution:** n&c Central Coast, w San Francisco Bay Area.

Plant found on site in Central maritime chaparral plant community areas south of parcel's 1 and 2 and east of parcel 4 and 5

***Arctostaphylos pajaroensis* - Pajaro manzanita.** CNPS List 1B.1. Shrub 1–4+ m; no burl. **Ecology:** Chaparral. Flowers December to April.

**Elevation:** < 200 m.

**Bioregional distribution:** north-central Central Coast, s San Francisco Bay Area (Pajaro Hills)

Plant found on site in Central maritime chaparral plant community areas south of parcel's 1 and 2 and east of parcel 4 and 5.

***Ceanothus cuneatus var. rigidus* - Monterey ceanothus.** CNPS List 4.2. Shrub, prostrate to erect, < 1.5 m. **Ecology:** UNCOMMON. Sandy hills, flats, closed-cone-pine forests. Flowers February to April

**Elevation:** < 200 m.

**Bioregional distribution:** s San Francisco Bay Area, Central Coast (near Hazard Canyon, San Luis Obispo Co.)

Plant found on site in Central maritime chaparral plant community areas south of parcel's 1 and 2 and east of parcel 4 and 5.

***Centromadia parryi ssp. congdonii* - Congdon's tarplant.** CNPS List 1B.2. Plants annual prostrate to erect, not puberulent or glandular. **Ecology:** Alkaline Valley and Foothill Grassland. Blooms July to October

**Elevation:** < 100 m.

**Bioregional distribution:** c&s Central Western California.

Marginal habitat on site.(presumed extirpated in Prunedale quad)

***Chorizanthe pungens var. pungens* - Monterey spineflower.** Federal Threatened, CNPS List 1B.2 Annual plant, prostrate or ascending. **Ecology:** Sandy openings in maritime chaparral, old and active dunes. Blooms April to July.

**Elevation:** 0-65 m.

**Bioregional distribution:** Central coast Monterey and Santa Cruz counties.

Plant found in disturbed sand of pathway east of parcel 4 and South of parcel 5

***Chorizanthe robusta var. robusta* - robust spineflower.** Federal Endangered, CNPS List 1B.1 Annual, plant spreading or decumbent, 1–2 dm, 1–6 dm across. **Ecology:** Sandy or gravelly openings in Chaparral, dunes. Blooms May to September.

**Elevation:** 10-300 m.

**Bioregional distribution:** North central Central coast, South Santa Cruz, North Monterey Counties. Most records considered extirpated. Not documented in Prunedale quadrant.

***Cordylanthus rigidus ssp. littoralis* - seaside bird's-beak.** State Endangered, CNPS List 1B.1. Annual Plant 30–150 cm, yellow-green or tinged red, puberulent to soft hairy. **Ecology:** Dunes, openings in Maritime chaparral and Pine woodland. Blooms April to September.

**Elevation:** 0–200 m.

**Bioregional distribution:** c Central Coast (s Monterey Bay and Peninsula), s Central Coast (w Santa Barbara Co.) Potential habitat on site. Not previously documented in Prunedale quad.

***Ericameria fasciculata* - Eastwood's goldenbush.** CNPS List 1B.1. Shrub, plant < 5 dm, densely leafy, glabrous to sparsely puberulent. **Ecology:** Dunes, coastal chaparral, closed-cone-pine forest. Flowers July to October.

**Elevation:** < 100 m.

**Bioregional distribution:** c Central Coast (n Monterey Co.) Potential habitat on site.

***Fritillaria liliacea* - fragrant fritillary.** CNPS List 1B.2. Perennial bulb; large scales 2–7; small scales 1–2.

**Ecology:** Heavy soil, open hills and fields near coast. Blooms February to April.

**Elevation:** generally < 200 m.

**Bioregional distribution:** Sacramento Valley (Solano Co.), Central Western California. No habitat on site.

***Holocarpha macradenia* - Santa Cruz tarplant.** Federal Threatened, State Endangered, CNPS List 1B.1.

Annual, densely glandular, strongly scented. Stems 1–5 dm; branches few, stiffly spreading, bristly, and glandular. **Ecology:** Grassy coastal terraces, Northern Coastal scrub. Blooms July to October.

**Elevation:** < 100 m.

**Bioregional distribution:** n Central Coast (n&c Monterey Bay), sw San Francisco Bay Area. No habitat on site.

***Lomatium parvifolium* - small-leaved lomatium.** CNPS List 4.2. Perennial plant 1.5–4 dm; taproot slender; herbage glabrous, ± glaucous, ± fleshy. **Ecology:** UNCOMMON. Pine woods, serpentine outcrops. Blooms March to June.

**Elevation:** 70–150 m.

**Bioregional distribution:** Central Coast, South Coast Ranges. Plant found in understory of disturbed maritime chaparral in Central western part of property south of Parcel 4

***Piperia michaelii* - Michael's rein orchid.** CNPS List 4.2. Perennial, caudex tuber- or bulb-like, 1–4 cm, generally ovoid, plant 15–70 cm. **Ecology:** UNCOMMON. Generally dry sites, coastal scrub, woodland, mixed-evergreen or closed-cone-pine forest. Flowers January to June.

**Elevation:** < 700 m.

**Bioregional distribution:** North Coast, Sierra Nevada Foothills, Central Coast, San Francisco Bay Area, n South Coast. No habitat on site.

***Piperia yadonii* - Yadon's rein orchid.** Federal Endangered, CNPS List 1B.1. Perennial, Caudex tuber- or bulb-like, 1–4 cm, generally ovoid, plant 10–50 cm. **Ecology:** Generally sandy soil or sandstone, coastal scrub, Monterey-pine forest. Flowers March to June.

**Elevation:** < 150 m.

**Bioregional distribution:** c Central Coast (n Monterey Co.). Suitable habitat on site. Plant not found on site

***Rosa pinetorum* - pine rose.** CNPS List 1B.2. Dwarf shrub, generally < 10 dm, ± rhizome. **Ecology:** Pine woodlands, canyons. Blooms May to July.

**Elevation:** generally < 300 m.

**Bioregional distribution:** west-central Central Western California. No habitat on site.

#### **Habitat/ Plant Community types**

**Central Maritime Chaparral** – A variable sclerophyll scrub of moderate to high cover (50-100%) dominated by forms of *Arctostaphylos tomentosa* plus one or more other narrowly distributed manzanita. Found on well-drained, sandy substrates within the zone of summer coastal fog incursion. Fire appears necessary for continued reproduction. Intergrades on more mesic, less sandy sites with Monterey Pine Forest, Bishop Pine Forest, and Monterey Pygmy Cypress Forest; with Chamise and Upper Sonoran Mixed Chaparral on stonier sites out of the foggy area; and with Lucian Coastal Scrub closer to the coast or on shaley substrates. Survives at scattered locations near Monterey and Ft. Ord (Pajaro Hills), and in southern San Luis Obispo and northern Santa Barbara counties. Significant patches found on and adjacent to project site.

**Coastal Brackish Marsh** – Usually at the interior edges of coastal bays and estuaries or in coastal lagoons. Adjacent to several Salt Marshes. Most extensively developed around Suisun Bay at the mouth of the Sacramento-San Joaquin Delta. Dominated by perennial, emergent, herbaceous monocots to 2m tall. Cover is often complete and dense. Similar to Salt Marshes and to Freshwater Marshes with some plants characteristic of each. Similar to Coastal Salt Marshes, but brackish from freshwater input. Salinity may vary considerably, and may increase at high tide or during seasons of low freshwater runoff or both. Usually intergrades with Coastal Salt Marshes toward the ocean and occasionally with Freshwater Marshes at the mouths of rivers, especially in the Sacramento-San Joaquin River Delta. Not found on or near project site.

**Northern Coastal Salt Marsh** - Along the coast from the Oregon border south to about Pt. Conception. Intergrades with Southern Coastal Salt Marsh over a considerable portion of the south central coast. Extensively developed around Humboldt Bay and other Humboldt Co. areas; Tomales Bay, Marin Co.; Elkhorn Slough, Monterey Co.; Morro Bay, San Luis Obispo Co.; and very extensively in the San Francisco Bay Area. Highly productive, herbaceous and suffrutescent, salt-tolerant hydrophytes forming moderate to dense cover and up to 1m tall. Most species are active in summer, dormant in winter. Usually segregated horizontally with *Spartina* nearer the open water, *Salicornia* at mid-littoral elevations, and a richer mixture closer to high ground. Usually found along sheltered inland margins of bays, lagoons, and estuaries. These hydric soils are subject to regular tidal inundation by salt water for at least part of each year. Not found on or near project site.



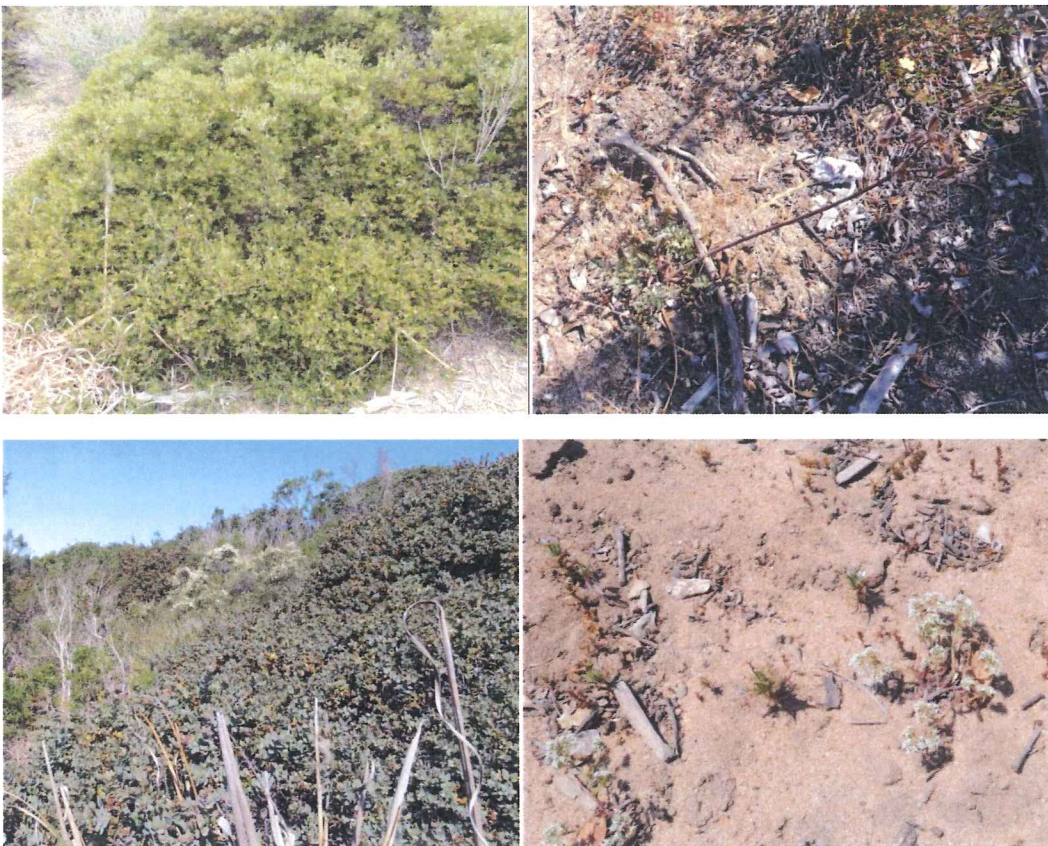
Figure 1: Dense central maritime chaparral in Western part of property



Figure 2: Dense annual grassland with occasional Coyote bush in middle of property where parcel 3 and 4 are proposed.



Figure 3: Stand of Oak woodland along south western edge of property as seen to southeast of proposed parcel 4



Special status species: top left: Hookers manzanita, top right: Small-leaved lomatium, Bottom left: Pajaro manzanita, Bottom right: Monterey spine flower.

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## Exhibit F - 2

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Jan & Kristi van Greunen  
6820 Long Valley Spur  
Castroville, CA 95012

August 8, 2015

RE: 129-201-052, 13 acre lot and 129-201-006 proposed for lot line adjustment into 3 legal parcels

Dear Jan and Kristi,

This update is an addendum to a report completed for your property in August 2013 (*van Greunen subdivision Biological assessment*). For that report we looked at the entire property, documented sensitive habitat and species and confirmed that none were found within **proposed development areas**. For this update on June 20, 2015 we looked again at the three areas that would become individual lots under the proposed lot line adjustment and confirmed the choice of potential building envelopes within each lot.

The primary plant communities represented within the 3 proposed lots are central **Maritime chaparral**, disturbed annual grassland and Oak woodland. Fragments, in varying sizes of each plant community are present on each of the three proposed lots. As determined in the 2013 report, no sensitive species were found in any of the proposed building envelopes. One species that was documented off of the subdivision acreage in 2013 also has the possibility of occurring in open sandy areas within maritime chaparral throughout the Pajaro hills region. Monterey Spineflower (*Chorizanthe pungens* variety *pungens*) is an annual flower that is listed as Threatened by the US Endangered species act and included on the California rare plant rank List 1B.2. It occurs in open sandy soils in Santa Cruz and Monterey Counties. It blooms from April to July. I looked for evidence of this species in the **three potential building envelopes in open sandy areas**. This visit was near the end of the typical bloom season but still early enough that we should have been able to identify the plant structure. No Monterey spineflower was found in any of these areas. To confirm that the plant would be detectable and identifiable if it were present, we looked in the area on the adjacent parcel to the east where it was documented in 2013. While not as abundant as it was in 2013, it nevertheless was present in patches over an area about 50 feet long. As seen in the photo to the right it was at the end of the flowering stage and going to seed. This particular population will not be affected in any way by the lot-line adjustment and it confirms that if the species were currently growing within the 3 proposed lots we would have been able to locate and identify it.





adjustment.

Other special status plants found on the property including Pajaro and Hookers manzanita were also not present in the proposed building envelopes. In fact the majority of the 3 lots is comprised of the annual grassland, which is easy to see in the aerial photo below. Between the lower road and the upper, less definite road along the ridge top is a sea of annual grassland with two smaller islands of Maritime chaparral in the lower left portion that will not be impacted by the lot-line

A revised driveway that will cross the open slope running SE to NW (Photo above left) will also pass only through the annual grassland at the upper end of the parcel. The aerial photo below shows the approximate location (white line) of the driveway crossing through the grassland between a few scattered coyote bushes, pine trees and Douglas' fir trees.

The lot adjustments and proposed building envelopes clustered in the nonnative annual grasslands have been carefully sited and chosen and will have no negative impacts to sensitive species or habitat on other adjacent properties and will in fact reduce peripheral impacts to the maritime chaparral east and west of the development area. This will allow virtually all of the potential development including single family dwellings, driveways, access roads and extension of utilities to occur entirely within previously developed or disturbed areas. This keeps all of the maritime chaparral intact and protects the plant community and individual species from development impacts and protects the natural beauty of this unique plant assemblage for future owners and generations. I applaud the sensitivity and effort at good planning!

Please feel free to call or email if I can be of any future assistance.

Pat Regan





looking SW toward Elkhorn slough.

Proposed lot #1, 2.9 acre lot. Building site at top, westerly portion of property

Proposed lot #2, 3.6 acre lot. Building site in central portion of property on gentle slope facing south. looking uphill to North.

Parcel C 13.49 acre (existing) lot. Building site at upper easterly portion of property looking East SE.

