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Founded 1979
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9-10-09

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Gentlemen:

Subject: **SHORT FORM FIRE PROTECTION PLAN; LETTER REPORT; REVISED.**
Energia Sierra Juarez U.S. Transmission Gen-Tie Project (ESJ Gen-Tie.); Jacumba

1.INTRODUCTION:

This revised Fire Protection Plan letter report is being submitted as an evaluation, pursuant to the requirement of the Rural Fire Protection District (RFPD) Fire Chief, and the County DPLU, of the adverse environmental effects that the proposed Energia Sierra Juarez Gen-Tie (ESJ Gen-Tie) project may have from wildland fire and mitigation of those impacts to ensure that the project does not unnecessarily expose people or structures to a significant risk of loss, injury or death involving wildland fires. The use of the short form Fire Protection Plan has been approved by RFPD Fire Chief David Nissen, and by the DPLU County Fire Marshal, Paul Dawson. Revisions in the original plan, dated 5-22-09, have been made in this edition to comply with the comments of 7-15-09, from the DPLU Fire Marshal. The RFPD has approved this Fire Protection Plan.

Emergency Response:

The project is within in the Rural Fire Protection District, who is the "Authority Having Jurisdiction". Staffing is by CALFIRE. Initial response is provided from Fire Station 43 at 1255 Jacumba Street, in Jacumba. Response distance is approximately 4 miles. The staffing currently includes two firefighters 24/7 year around plus 4 volunteers. This station has the following apparatus: A 1,000 GPM structural fire engine and a 1,800-gallon water tender. This station currently responds to about 7-10 calls per week. The additional responding Fire Companies for emergencies, are:

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- CDF Whitestar Fire Station in Campo (staffed 24-7; CDF Schedule A contract).
- Campo Indian Reservation Fire Department.
- Boulevard Volunteer Fire Department; Volunteer.

The next closest Rural Fire Protection District Fire Engine is Lake Moreno, which is about a 20-minute response. This is also a volunteer Fire Station.

Other Fire Companies are available as needed per the County and State Mutual Aid response agreements.

2. PROJECT DESCRIPTION:

The ESJ Gen-Tie project is a high voltage generator tie line to connect new renewable wind power in Northern Baja Mexico into the existing Southwest Power Link transmission line. The line would be either a single circuit 500 kV line or double circuit 230 kV line, a fiber optic line, and a grounding cable, supported on steel lattice or steel monopole towers. Towers have a concrete base. There would be 3 to 5 structures up to about 150' high for lattice towers and up to 170' high for monopoles. There are no buildings. The Right of Way (ROW) is less than 1 mile long from the International Border to the terminus in the U.S. at a proposed San Diego Gas and Electric Co. (SDG&E) East County substation (ECO Substation). The ECO substation is 3.75 miles east of Jacumba, and is south of the Old Highway 80. The facilities in Mexico are out of the scope of this report and the proposed SDG&E substation would be subject to separate fire protection approvals

3. ENVIRONMENTAL SETTING:

Location:

The site is in the O Neil Valley, approximately four miles Southeast of Jacumba and adjoining the border. This is Thomas Guide page # 430. It is approximately 2 miles southeast of the closest stick built structures. There is a trailer 0.28 miles southwest of the proposed 230 KV Gen-Tie line. The State CALFIRE FRAP fire hazard classification maps classify this area as a "Very High Fire Hazard Area".

Topography:

The average slope of the property is less than 15%. The actual Right of Way appears to be substantially flat with a slight sloping. There are no hills on the right of way. There are hills offsite.

Geology:

Soil in the ROW appears to be dirt. The legal property access road would be a 24-foot wide dirt road, with a DG surface (see Section 5 below) leading from Old Highway 80 to the power line tie in to the future SDG&E substation.

Flammable Vegetation:

The vegetation on site is considered Semi-desert Chaparral. It appears to be a BEHAVE fuel model SH-2. It is observed to be about one foot high with some jackpots that are about five foot high. It has some spacing between vegetation. Refer to site photos attached.

Climate:

The temperatures in this area can reach an extreme maximum temperature between July and October. The maximum recorded temperature occurred in July, with a temperature of about 112 degrees f. Average maximum temperature in July-September was 92 degrees f in August. Winds used in the fire models were 50 mph at 20' for a fall fire and a 20-foot wind speed of 25 mph for a summer fire. Therefore wind driven fires can occur in times when weather is hot and fuel moistures are low. A 1000-acre fire started in Mexico burned across this site in 2006. Flame lengths were reportedly about 15'.

Environmental Issues:

EDAW, Inc, the Biology and Archeology consultant for ESJ U.S., reports that there is sensitive habitat (vegetation and wildlife) present in the Right Of Way. They also state there are Cultural sites in the Right of Way. Therefore, per EDAW, fuel modification cannot be done in areas of the Cultural sites, and machinery cannot be used for fuel modification along the ROW. Fuel Modification (other than the 30' around towers which would be done) cannot be done without providing required offsetting mitigation.

4. WATER SUPPLY:

There are no buildings involved in this project and therefore there are no water requirements.

5.ACCESS ROADS:

Location:

The Fire access road would be off Old Highway 80, and would be a dirt road. It will be a twenty eight foot (28') graded width which shall be improved to about 24' in width with decomposed granite (DG) where it connects from old Highway 80 to the power line tie in (this project) to the future SDG&E substation. A turnaround will be required within 150' of the termination of the road at the substation. Consultant recommends that this

preferably be at the termination of the road. A 20' wide, dirt, access road will be provided along the right of way for maintenance of the Gen-Tie line and for patrolling of the property. Road grade on the roads is estimated to be less than 10%.

6. BUILDING CONSTRUCTION:

There will be no buildings in the scope of this project. There will only be steel towers and electrical lines. The closest structures are a trailer about 0.28 mile southwest of the property, and stick built structures about 2 miles west. The town of Jacumba is 3.75 miles west.

7. FENCING:

There will be no fencing.

8.FIRE PROTECTION SYSTEMS:

There are no buildings in this project so there are no Fire Protection systems required or necessary.

9.AIR OPERATIONS:

The applicant shall obtain letters of approval from CALFIRE Air operations, due to the potential for the operation of CALFIRE aircraft in the area during a fire. In addition, there is a small airport in Jacumba. The towers will need to comply with any applicable FAA regulations, and may need warning lights on them due to proximity of the airport and the potential for Firefighting aircraft to operate in the area.

10.DEFENSIBLE SPACE:

Per this Fire Protection Plan, this site will have 30 feet (30') of fuel modification on all sides of the towers. Within that 30 feet (30'), the area may be cleared, concreted, graveled or vegetation would be cut to 6 inches (6") high.

The PRC, Sections 4292 and 4293 Code require 10-foot (10') clearance from base of poles (or towers) and 10 feet (10') between vegetation and wires.

In addition, the CALFIRE Power Line Fire Prevention Field Guide, dated 10-08, and co authored by Sempra Energy, SDGE, and other power companies requires 10-foot (10') clearance from the base of poles (or towers), 10 feet (10') between vegetation and wires and marking of poles. The requirements in this guide would be complied with, as and where applicable to this line. This guide is on the Office of State Fire Marshal website at OSFM.Fire.Ca.Gov; click "programs", click "Wildland Fire Prevention Engineering", click "Power Line Fire Prevention Field Guide".

ESJ has agreed to provide 30' tower clearance, 10 feet (10') between vegetation and wires, and marking of towers. ESJ would also comply with any new, applicable, regulations by the PUC, CPUC, or other jurisdictional agencies.

It is the strong recommendation of the consultant that there must be no new plants, shrubs, trees, etc planted in the Right of Way or in the area 30 feet (30') on each side of the ROW, as this would increase the fire hazard and present a risk to the towers and the power lines, and can result in potentially causing arcing to the ground from wires during a fire on the ROW. Wires can also slap together during high winds and cause sparks to fall into vegetation. If new vegetation is mandated by the County for screening purposes, then there must be no new vegetation, including trees, in the ROW and 30 feet (30') on each side. In addition there must be no new vegetation, including trees, beyond the 30 feet (30') to each side of the ROW, and on the property, that is found on the Prohibited Plant List attached to this report.

It is understood, from EDAW consultants, that no fuel modification can be done in sensitive habitat, or archeological sites, or if otherwise prohibited, without permission of the County DPLU and the Resource Agencies. It is also understood that the Fire District can require additional Fuel Modification, upon inspection, subject to constraints of the sensitive habitat and Archeological sites. Per EDAW, machinery should not be used for Fuel Modification on the ROW due to the sensitive areas.

During Fuel Modification, consideration would be given, by applicant, to potentials for erosion and slope instability, in order to prevent damage to tower foundations.

11.VEGETATION MANAGEMENT:

Prescribed defensible space would be maintained on at least an annual basis, prior to May 1, or more often as needed by the applicant. All present and future owners/operators must be put on legal notice by a legally binding recorded instrument as to the requirement to maintain the vegetation in a fire safe manner.

12. FIRE BEHAVIOR MODELING

A computerized Fire Behavior Model is not required for this project per the Fire District, or the County DPLU.

However, BEHAVE modeling was done by the consultant to evaluate the on site fire risk and needed fuel modification. The SH-2 model was used. Vegetation canopy height was assumed to be 5'. The results are:

Fire	Flame Length	Rate of Spread	Spotting downwind
Summer	9.4'	0.33 MPH	0.5 miles
Fall	15.8'	1 MPH	1.2 miles

The spotting distance would be 0.4 miles.

The power lines are approximately 150 to 170' above grade.

Note: models are guidelines only. Actual fire behavior can be more or less intensive.

The modeling shows that airborne burning embers may reach a potentially habitable trailer, which is located off the property, about 0.28 miles to the southwest. This may require that a Fire Engine Crew go to that trailer during a fire to provide protection for it, and extinguish spot fires, during a wind driven fire.

13. FIRE DISTRICT REQUIREMENTS:

ESJ LLC agrees, and fully intends, to work with the Rural Fire Protection District Fire Chief to resolve any of his concerns and any Fire District requirements for equipment, mitigation fees, etc. All final approvals and agreements are to be obtained from the Fire Chief. The Fire District has approved this Fire Protection Plan.

14. SUMMARY/DISCLAIMER

Engineering, Architecture, Landscape Architecture, design and construction are out of the scope of this plan and are the responsibility of others. Applicant may submit requests for review and approval of alternative materials and methods which have the same practical effect and equivalency as the materials and methods required or recommended in this plan.

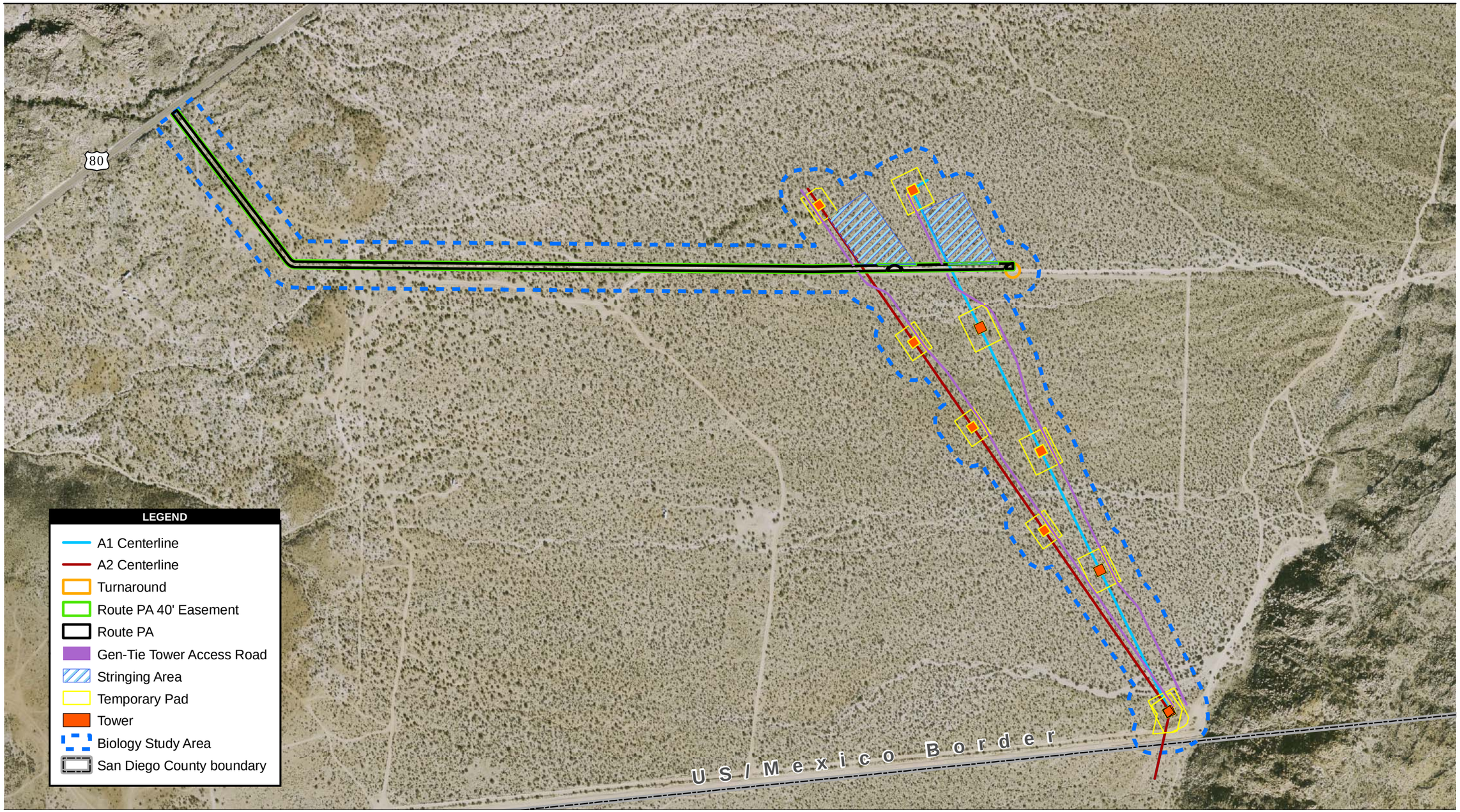
As Fire is unpredictable and dynamic, this plan cannot guarantee that a fire will not occur or will not cause damage to property or injury or death to humans or animals. There are no guarantees made, expressed or implied, regarding the effectiveness or adequacy of any recommendations or requirements in this plan for all fire situations. However, the Fire Protection concepts proposed in this plan should lessen the impact upon the Fire District.

Any official Fire Protection requirements and approvals will be set forth by the RFPD and the County DPLU Fire Marshal.

James W Hunt, President Hunt Research Corporation
Prepared by _____, President. Date 9-11-09

_____ Agreed to on behalf of ESJ U.S. Transmission LLC by (Signature, Date, and printed name)

Attach: Figure 1-2 Project Area Map
Attach: Site Photos
Attach: Prohibited Plant List



Source: DigitalGlobe 2008, Sempra Energy 2009, SANGIS 2008

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 1-2
Project Area Map

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\FireProtectionPlan_Fig_1-2.mxd, 11/03/09, AugelloP

Site Photos: (fence in distance is Border. Top photo shows offsite trailer in distance)

Some Examples of Prohibited Plants

Botanical Name	Common Name	Comment*
Trees		
Abies species	Fir	F
Acacia species (numerous)	Acacia	F, I
Agonis juniperina	Juniper Myrtle	F
Araucaria species (A. heterophylla, A. araucana, A. bidwillii)	Araucaria (Norfolk Island Pine, Monkey Puzzle Tree, Bunya Bunya)	F
Callistemon species (C. citrinus, C. rosea, C. viminalis)	Bottlebrush (Lemon, Rose, Weeping)	F
Calocedrus decurrens	Incense Cedar	F
Casuarina cunninghamiana	River She-Oak	F
Cedrus species (C. atlantica, C. deodara)	Cedar (Atlas, Deodar)	F
Chamaecyparis species (numerous)	False Cypress	F
Cinnamomum camphora	Camphor	F
Cryptomeria japonica	Japanese Cryptomeria	F
Cupressocyparis leylandii	Leyland Cypress	F
Cupressus species (C. fobesii, C. glabra, C. sempervirens,)	Cypress (Tecate, Arizona, Italian, others)	F
Eucalyptus species (numerous)	Eucalyptus	F, I
Juniperus species (numerous)	Juniper	F
Larix species (L. decidua, L. occidentalis, L. kaempferi)	Larch (European, Japanese, Western)	F
Leptospermum species (L. laevigatum, L. petersonii)	Tea Tree (Australian, Tea)	F
Lithocarpus densiflorus	Tan Oak	F
Melaleuca species (M. linariifolia, M. nesophila, M. quinquenervia)	Melaleuca (Flaxleaf, Pink, Cajeput Tree)	F, I
Olea europea	Olive	I
Picea (numerous)	Spruce	F
Palm species (numerous)	Palm	F, I
Pinus species (P. brutia, P. canariensis, P. b. eldarica, P. halepensis, P. pinea, P.	Pine (Calabrian, Canary Island, Mondell, Aleppo, Italian Stone, Monterey)	F

Some examples of Prohibited Plants

Botanical Name	Common Name	Comment
radiata, numerous others)		
Platycladus orientalis	Oriental arborvitae	F
Podocarpus species (P. gracilior, P. macrophyllus, P. latifolius)	Fern Pine (Fern, Yew, Podocarpus)	F
Pseudotsuga menziesii	Douglas Fir	F
Schinus species (S. molle, S. terebenthifolius)	Pepper (California and Brazilian)	F, I
Tamarix species (T. africana, T. aphylla, T. chinensis, T. parviflora)	Tamarix (Tamarisk, Athel Tree, Salt Cedar, Tamarisk)	F, I
Taxodium species (T. ascendens, T. distichum, T. mucronatum)	Cypress (Pond, Bald, Monarch, Montezuma)	F
Taxus species (T. baccata, T. brevifolia, T. cuspidata)	Yew (English, Western, Japanese)	F
Thuja species (T. occidentalis, T. plicata)	Arborvitae/Red Cedar	F
Tsuga species (T. heterophylla, T. mertensiana)	Hemlock (Western, Mountain)	F
Groundcovers, Shrubs & Vines		
Acacia species	Acacia	F, I
Adenostoma fasciculatum	Chamise	F
Adenostoma sparsifolium	Red Shanks	F
Agropyron repens	Quackgrass	F, I
Anthemis cotula	Mayweed	F, I
Arbutus menziesii	Madrone	F
Arctostaphylos species	Manzanita	F
Arundo donax	Giant Reed	F, I
Artemisia species (A. abrotanium, A. absinthium, A. californica, A. caucasica, A. dracunculus, A. tridentata, A. pynocephala)	Sagebrush (Southernwood, Wormwood, California, Silver, True tarragon, Big, Sandhill)	F
Atriplex species (numerous)	Saltbush	F, I
Avena fatua	Wild Oat	F
Baccharis pilularis	Coyote Bush	F
Bambusa species	Bamboo	F, I
Bougainvillea species	Bougainvillea	F, I
Brassica species (B. campestris, B. nigra, B. rapa)	Mustard (Field, Black, Yellow)	F, I

Some examples of Prohibited Plants

Botanical Name	Common Name	Comment*
Bromus rubens	Foxtail, Red brome	F, I
Castanopsis chrysophylla	Giant Chinquapin	F
Cardaria draba	Hoary Cress	I
Carpobrotus species	Ice Plant, Hottentot Fig	I
Cirsium vulgare	Wild Artichoke	F,I
Conyza bonariensis	Horseweed	F
Coprosma pumila	Prostrate Coprosma	F
Cortaderia selloana	Pampas Grass	F, I
Cytisus scoparius	Scotch Broom	F, I
Dodonaea viscosa	Hopseed Bush	F
Eriodictyon californicum	Yerba Santa	F
Eriogonum species (E. fasciculatum)	Buckwheat (California)	F
Fremontodendron species	Flannel Bush	F
Hedera species (H. canariensis, H. helix)	Ivy (Algerian, English)	I
Heterotheca grandiflora	Telegraph Plant	F
Hordeum leporinum	Wild barley	F, I
Juniperus species	Juniper	F
Lactuca serriola	Prickly Lettuce	I
Larix species (numerous)	Larch	F
Larrea tridentata	Creosote bush	F
Lolium multiflorum	Ryegrass	F, I
Lonicera japonica	Japanese Honeysuckle	F
Mahonia species	Mahonia	F
Mimulus aurantiacus	Sticky Monkeyflower	F
Miscanthus species	Eulalie Grass	F
Muhlenbergia species	Deer Grass	F
Nicotiana species (N. bigelovii, N. glauca)	Tobacco (Indian, Tree)	F, I
Pennisetum setaceum	Fountain Grass	F, I
Perovskia atroplicifolia	Russian Sage	F
Phoradendron species	Mistletoe	F
Pickeringia montana	Chaparral Pea	F
Rhus (R. diversiloba, R. laurina, R. lentii)	Sumac (Poison oak, Laurel, Pink Flowering)	F
Ricinus communis	Castor Bean	F, I
Rhus Lentii	Pink Flowering Sumac	F

Some examples of Prohibited Plants

Botanical Name	Common Name	Comment*
Rosmarinus species	Rosemary	F
Salvia species (numerous)	Sage	F, I
Salsola australis	Russian Thistle	F, I
Solanum Xantii	Purple Nightshade (toxic)	I
Silybum marianum	Milk Thistle	F, I
Thuja species	Arborvitae	F
Urtica urens	Burning Nettle	F
Vinca major	Periwnkle	I

*F = flammable, I = Invasive

NOTES:

1. Plants on this list that are considered invasive are a partial list of commonly found plants. There are many other plants considered invasive that should not be planted in a fuel modification zone and they can be found on The California Invasive Plant Council's Website www.cal-ipc.org/ip/inventory/index.php. Other plants not considered invasive at this time may be determined to be invasive after further study.
2. For the purpose of using this list as a guide in selecting plant material, it is stipulated that all plant material will burn under various conditions.
3. The absence of a particular plant, shrub, groundcover, or tree, from this list does not necessarily mean it is fire resistive.
4. All vegetation used in Vegetation Management Zones and elsewhere shall be subject to approval of the Fire Marshal.
5. Landscape architects may submit proposals for use of certain vegetation on a project specific basis. They shall also submit justifications as to the fire resistivity of the proposed vegetation.
6. This list was prepared by Hunt Research Corporation and Dudek and associates and reviewed by, Scott Franklin Consulting co.