

APPENDIX A
MODELING

Parcel	Habitat	Fuel Model	Fuel Moisture	20-Ft Wind Speed M/H	Wind Direction	Slope	Aspect	Flame Length (Ft)	Direction of Max Spread	Towards Structure (y/n)
80	SMC	4				10	225	99.8		Y
292	SCLDREF	10	Timber w/ 1st row of windbreak only			30	270	19.5		
77/76	SMC	4				36	225	99.3		
45	CC H	Scal 18				10	180	44.9		
44/43	CC H	Scal 18				12	180	44.9		
34/38	CC H	Scal 18				18	225	44.8		
34/33	DEOWN					18	180	2.3		Y
30/29	CC H	Scal 18				34	225	44.5		
40	DEOWN					8	225	10.3		

23 NN6
 1547-
 1537
 3 tall grass
 1 short grass
 10 270 99.6
 10ft

Modules: SURFACE

Description	Montecito Grass for Parcels 5-11	
Fuel/Vegetation, Surface/Understory		
Fuel Model		1
Fuel/Vegetation, Overstory		
Canopy Cover	%	0
Canopy Height	ft	
Crown Ratio		
Fuel Moisture		
Moisture Scenario		d111
Weather		
20-ft Wind Speed	mi/h	75
Wind Direction (from north)	deg	0, 45, 90
Terrain		
Slope Steepness	%	15
Aspect (from north)	deg	90

Run Option Notes

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

Direction of Maximum Spread (from north) (deg) [SURFACE]

Wind/Slope/Spread Direction Diagram [SURFACE]

Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for short grass, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Montecito Grass for Parcels 5-11

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	446.5	10.0	180
45	446.5	10.0	225
90	446.5	10.0	270

Modules: SURFACE

Description		Parcel 23 Non-native grassland
Fuel/Vegetation, Surface/Understory		
Fuel Model		1
Fuel/Vegetation, Overstory		
Canopy Cover	%	0
Canopy Height	ft	
Crown Ratio		
Fuel Moisture		
Moisture Scenario		d111
Weather		
20-ft Wind Speed	mi/h	70
Wind Direction (from north)	deg	0, 45, 90
Terrain		
Slope Steepness	%	10
Aspect (from north)	deg	270

Run Option Notes

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

Direction of Maximum Spread (from north) (deg) [SURFACE]

Wind/Slope/Spread Direction Diagram [SURFACE]

Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for short grass to represent the non-native grassland habitat on-site, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcel 23 Non-native grassland

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	446.5	10.0	180
45	446.5	10.0	225
90	446.5	10.0	270

Modules: SURFACE

Description	Parcels	380/379	Coastal Sage Scrub
Fuel/Vegetation, Surface/Understory			
Fuel Model		SCAL18	
Fuel/Vegetation, Overstory			
Canopy Cover	%	0	
Canopy Height	ft		
Crown Ratio			
Fuel Moisture			
Moisture Scenario		d111	
Weather			
20-ft Wind Speed	mi/h	70	
Wind Direction (from north)	deg	0, 45, 90	
Terrain			
Slope Steepness	%	24	
Aspect (from north)	deg	225	

Run Option Notes

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

Direction of Maximum Spread (from north) (deg) [SURFACE]

Wind/Slope/Spread Direction Diagram [SURFACE]

Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for coastal sage scrub, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcels 380/379 Coastal Sage Scrub

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	294.8	44.7	179
45	293.6	44.6	225
90	294.8	44.7	271

Modules: SURFACE

Description		Parcel 23 Non-native grassland
Fuel/Vegetation, Surface/Understory		
Fuel Model		3
Fuel/Vegetation, Overstory		
Canopy Cover	%	0
Canopy Height	ft	
Crown Ratio		
Fuel Moisture		
Moisture Scenario		d111
Weather		
20-ft Wind Speed	mi/h	70
Wind Direction (from north)	deg	0, 45, 90
Terrain		
Slope Steepness	%	10
Aspect (from north)	deg	270

Run Option Notes

- Calculations are only for the direction of maximum spread [SURFACE].
- Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].
- Wind and spread directions are degrees clockwise from north [SURFACE].
- Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

- Surface Rate of Spread (maximum) (ch/h) [SURFACE]
- Flame Length (ft) [SURFACE]
- Direction of Maximum Spread (from north) (deg) [SURFACE]
- Wind/Slope/Spread Direction Diagram [SURFACE]
- Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for tall grass to represent the non-native grassland habitat on-site, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcel 23 Non-native grassland

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	1668.2	49.6	180
45	1666.6	49.6	225
90	1666.0	49.6	270

Modules: SURFACE

Description	Parcels	267/266	Open	Engelmann	Oak	Woodland
Fuel/Vegetation, Surface/Understory						
Fuel Model			9			
Fuel/Vegetation, Overstory						
Canopy Cover		%	0			
Canopy Height		ft				
Crown Ratio						
Fuel Moisture						
Moisture Scenario			d111			
Weather						
20-ft Wind Speed		mi/h	70			
Wind Direction (from north)		deg	0, 45, 90			
Terrain						
Slope Steepness		%	12			
Aspect (from north)		deg	225			

Run Option Notes

- Calculations are only for the direction of maximum spread [SURFACE].
- Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].
- Wind and spread directions are degrees clockwise from north [SURFACE].
- Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

- Surface Rate of Spread (maximum) (ch/h) [SURFACE]
- Flame Length (ft) [SURFACE]
- Direction of Maximum Spread (from north) (deg) [SURFACE]
- Wind/Slope/Spread Direction Diagram [SURFACE]
- Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for hardwood litter to represent the open engelmann oak woodland on-site, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcels 267/266 Open Engelmann Oak Woodland

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	110.3	10.3	180
45	110.2	10.3	225
90	110.3	10.3	270

Modules: SURFACE

Description	Parcels	283	Dense	Engelmann	Oak	Woodland
Fuel/Vegetation, Surface/Understory						
Fuel Model			8			
Fuel/Vegetation, Overstory						
Canopy Cover	%		0			
Canopy Height	ft					
Crown Ratio						
Fuel Moisture						
Moisture Scenario			d111			
Weather						
20-ft Wind Speed	mi/h		70			
Wind Direction (from north)	deg		0, 45, 90			
Terrain						
Slope Steepness	%		10			
Aspect (from north)	deg		225			

Run Option Notes

- Calculations are only for the direction of maximum spread [SURFACE].
- Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].
- Wind and spread directions are degrees clockwise from north [SURFACE].
- Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

- Surface Rate of Spread (maximum) (ch/h) [SURFACE]
- Flame Length (ft) [SURFACE]
- Direction of Maximum Spread (from north) (deg) [SURFACE]
- Wind/Slope/Spread Direction Diagram [SURFACE]
- Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for closed timber litter to represent the dense engelmann oak woodland on-site, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcels 283 Dense Engelmann Oak Woodland

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	8.4	2.3	180
45	8.4	2.3	225
90	8.4	2.3	270

Modules: SURFACE

Description Parcel 292 Southern Coast Live Oak Riparian Forest

Fuel/Vegetation, Surface/Understory

Fuel Model 10

Fuel/Vegetation, Overstory

Canopy Cover % 0

Canopy Height ft

Crown Ratio

Fuel Moisture

Moisture Scenario d111

Weather

20-ft Wind Speed mi/h 70

Wind Direction (from north) deg 0, 45, 90

Terrain

Slope Steepness % 30

Aspect (from north) deg 270

Run Option Notes

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always
for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

Direction of Maximum Spread (from north) (deg) [SURFACE]

Wind/Slope/Spread Direction Diagram [SURFACE]

Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for timber with litter understory to represent the southern coast live oak riparian forest on-site, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcel 292 Southern Coast Live Oak Riparian Forest

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	128.0	19.5	179
45	126.6	19.4	224
90	126.0	19.3	270

Modules: SURFACE

Description	Parcels	380/379	Southern Mixed Chaparral
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Fuel/Vegetation, Surface/Understory

Fuel Model		4
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Fuel/Vegetation, Overstory

Canopy Cover	%	0
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Canopy Height	ft	
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Crown Ratio		
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Fuel Moisture

Moisture Scenario		d111
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Weather

20-ft Wind Speed	mi/h	70
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Wind Direction (from north)	deg	0, 45, 90
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Terrain

Slope Steepness	%	24
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Aspect (from north)	deg	225
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Run Option Notes

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

Direction of Maximum Spread (from north) (deg) [SURFACE]

Wind/Slope/Spread Direction Diagram [SURFACE]

Fire Characteristics Chart [SURFACE]

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Input Worksheet (continued)

Notes

The results of this run are using the fuel model for chaparral, a Santa Ana wind condition of 70 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario (3,4,5,30,60).

Parcels 380/379 Southern Mixed Chaparral

Wind Dir (north) deg	ROS (max) ch/h	Flame Length ft	Direction Max ROS deg
0	2149.1	99.6	180
45	2145.8	99.6	225
90	2149.1	99.6	270

APPENDIX B

SUGGESTED PLANT LIST FOR A DEFENSIBLE SPACE

SUGGESTED PLANT LIST FOR A DEFENSIBLE SPACE

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>Climate Zone</u>
TREES		
Acer		
platanoides	Norway Maple	M
rubrum	Red Maple	M
saccharinum	Silver Maple	M
saccarum	Sugar Maple	M
macrophyllum	Big Leaf Maple	C/ (R)
Alnus rhombifolia	White Alder	C/I/M (R)
Arbutus		
unedo	Strawberry Tree	All zones
Archontophoenix		
cunninghamiana	King Palm	C
Arctostaphylos spp.**	Manzanita	C/I/D
Brahea		
armata	Blue Hesper Palm	C/D
edulis	Guadalupe Palm	C/D
Ceratonia siliqua	Carob	C/I/D
Cerdidium floridum	Blue Palo Verde	D
Cercis occidentalis**	Western Redbud	C/I/M
Cornus		
nuttallii	Mountain Dogwood	I/M
stolonifera	Redtwig Dogwood	I/M
Eriobotrya		
japonica	Loquat	C
Erythrina caffra	Kaffirboom Coral Tree	I/M
Gingko biloba "Fairmount"	Fairmount Maidenhair Tree	I/D/M
Gleditisia triacanthos	Honey Locust	
Juglans		
californica	California Walnut	C/I
hindsii	California Black Walnut	I/D/M
Lagerstroemia indica	Crape Myrtle	I
Ligustrum lucidum	Glossy Privet	C/I/M
Liquidambar styraciflua	Sweet Gum	I
Liriodendron tulipifera	Tulip Tree	
Lyonothamnus floribundus		
ssp. Asplenifolius	Fernleaf Catalina Ironwood	C
Melaleuca spp.	Melaleuca	C/I
Parkinsonia aculeate	Mexican Palo Verde	
Pistacia		
chinensis	Chinese Pistache Pistachio Nut	C/I/D

vera	Pistachio Nut	I
Pittosporum		
phillyraeoides	Willow Pittosporum	C/I/D
viridiflorum	Cape Pittosporum	C/I
Platanus		
acerifolia	London Plane Tree	All zones
racemosa**	California Sycamore	C/I/M
Populus		
alba	White Poplar	D/M
fremontii**	Western Cottonwood	I
trichocarpa	Black Cottonwood	I/M
Prunus		
xblireiana	Flowering Plum	M
caroliniana	Carolina Laurel Cherry	C
ilicifolia**	Hollyleaf Cherry	C
lyonii**	Catalina Cherry	C
serrulata 'Kwanzan'	Flowering Cherry	M
yedoensis 'Akebono'	Akebono Flowering Cherry	M
Quercus		
agrifolia**	Coast Live Oak	C/I
engelmannii	Engelmann Oak	I
** suber	Cork Oak	C/I/D
Rhus		
lancea**	African Sumac	C/I/D
Salix spp.**	Willow	All zones (R)
Tristania conferta	Brisbane Box	C/I
Ulmus		
parvifolia	Chinese Elm	I/D
pumila	Siberian Elm	C/M
Umbellularia californica**	California Bay Laurel	C/I

SHRUBS

Agave	Century Plant	D
americana	Century Plant	D
deserti	Shawis Century Plant	D
shawi**		
Amorpha fruticosa**	False Indigobush	I
Arbutus		
menziesii**	Madrone	C/I
Arctostaphylos spp.**	Manzanita	C/I/D
Atriplex**		
canescens	Hoary Saltbush	I
lentiformis	Quail Saltbush	D
Baccharis**		
glutinosa	Mule Fat	C/I
pilularis	Coyote Bush	C/I/D
Carissa grandiflora	Natal Plum	C/I
Ceanothus spp.**	California Lilac	C/I/M
Cistus spp.	Rockrose	C/I/D
Cneoridium dumosum**	Bushrue	C
Comarostaphylis**		
diversifolia	Summer Holly	C
Convolvulus cneorum	Bush Morning Glory	C/I/M
Dalea		
orcuttii	Orcutt's Delea	D
spinosa**	Smoke Tree	I/D
Elaeagnus		
pungens	Silverberry	C/I/M
Encelia**		
californica	Coast Sunflower	C/I
farinose	White Brittlebush	D/I
Eriobotrya		
deflexa	Bronze Loquat	C/I
Eriophyllum		
confertiflorum**	Golden Yarrow	C/I
staechadifolium	Lizard Tail	C
Escallonia spp.	Escallonia	C/I
Feijoa sellowiana	Pineapple Guava	C/I/D
Fouquieria splendens	Ocotillo	D
Fremontodendron**		
californicum	Flannelbush	I/M
mexicanum	Southern Flannelbush	I
Galvezia		
juncea	Baja Bush-Snapdragon	C
speciosa	Island Bush-Snapdragon	C
Garrya		
elliptica	Coast Silktassel	C/I
flavescens**	Desch. Silktassel	I/M

Heteromeles arbutifolia**	Ashy Silktassel	I/M
Lantana spp.	Toyon	C/I/M
Lotus scoparius	Lantana	C/I/D
Mahonia spp.	Deerweed	C/I
	Barberry	C/I/M
Malacothamnus clementinus		
	San Clemente Island Bush Mallow	C
fasciculatus**	Mesa Bushmallow	C/I
Melaleuca spp.	Melaleuca	C/I/D
Mimulus spp.**	Monkeyflower	C/I (R)
Nolina parryi	Parry's Nolina	I
parryi ssp. wolfii	Wolf's Bear Grass	D
Photinia spp.	Photinia	All Zones
Pittosporum crassifolium		C/I
rhombifolium	Queensland Pittosporum	C/I
tobira 'Wheeler'	Wheeler's Dwarf	C/I/D
undulatum	Victorian Box	C/I
viridiflorum	Cape Pittosporum	C/I
Plumbago auriculata	Cape Plumbago	C/I/D
Prunus caroliniana	Carolina Laurel Cherry	C
ilicifolia**	Hollyleaf Cherry	C
lyonii**	Catalina Cherry	C
Puncia granatum	Pomegranate	C/I/D
Pyracantha spp.	Firethorn	All Zones
Quercus dumosa**	Scrub Oak	C/I
Rhamus alaternus	Italian Blackthorn	C/I
californica**	Coffeeberry	C/I/M
Rhaphiolepis spp.	Rhaphiolepis	C/I/D
Rhus integrifolia**	Lemonade Berry	C/I
laurina	Laurel Sumac	C/I
lentii	Pink-Flowering Sumac	C/D
ovata**	Sugarbush	I/M
trilobata**	squawbush	I
Ribes viburnifolium	Evergreen Currant	C/I
speciosum**	Fuschia-Flowering Gooseberry	C/I/D
Romneya coulteri	Matilija Poppy	I
Rosa californica**		
minutifolia		

Salvia spp.**	California Wild Rose	C/I
Sambucus spp.**	Baja California Wild Rose	C/I
Symphoricarpos mollis**	Sage	All Zones
Syringa vulgaris	Elderberry	C/I/M
Tecomaria capensis	Creeping Snowberry	C/I
Teucrium fruticans	Lilac	M
Toxicodendron**	Cape Honeysuckle	C/I/D
diversilobum	Bush Germander	C/I
Verbena		
lilacina	Poison Oak	I/M
Xylosma congestum		
Yucca**	Lilac Verbena	C
schidigera	Shiny Xylosma	C/I
whipplei		
	Mojave Yucca	D
	Foothill Yucca	I

GROUNDCOVERS		
Achillea**	Yarrow	All Zones
Aptenia cordifolia	Apteria	C
Arctostaphylos spp.**	Manzanita	C/I/D
Baccharis**		
pilularis	Coyote Bush	C/I/D
Ceanothus spp.**	California Lilac	C/I/M
Cerastium tomentosum	Snow-in-Summer	All Zones
Coprosma kirkii	Creeping Coprosma	C/I/D
Cotoneaster spp.	Redberry	All Zones
Drosanthemum hispidum	Rosea Ice Plant	C/I
Dudleya		
brittonii	Brittonis Chalk Dudleya	C
pulverulenta**	Chalk Dudleya	C/I
virens	Island Live Fore-ever	C
Eschscholzia californica**	California Poppy	All Zones
Euonymus fortunei		
'Carrierei'	Glossy Winter Creeper	M
'Coloratus'	Purple-Leaf Winter Creeper	M
Ferocactus viridescens**	Coast Barrel Cactus	C
Gaillardia grandiflora	Blanket Flower	All Zones
Gazania spp.	Gazania	C/I
Helianthemum spp.**	Sunrose	All Zones
Lantana spp.	Lantana	C/I/D
Lasthenia		
californica**	Common Goldfields	I
glabrata	Coastal Goldfields	C
Lupinus spp.**	Lupine	C/I/M
Myoporum spp.	Myoporum	C/I
Pyracantha spp.	Firethorn	All zones
Rosmarinus officinalis	Rosemary	C/I/D
Santolina		
chamaecyparissus	Lavender Cotton	All Zones
virens	Santolina	All Zones
Trifolium frageriferum	O'Connor's Legume	C/I
Verbena		
rigida	Verbena	All Zones
Viguiera laciniata**	San Diego Sunflower	C/I
Vinca		
minor	Dwarf Periwinkle	M

VINES		
Antigonon leptopus	San Miguel Coral Vine	C/I
Distictis buccinatoria	Blood-Red Trumpet Vine	C/I/D
Keckiella cordifolia**	Heart-Leaved Penstemon	C/I
Lonicera		
japonica 'Halliana'	Hall's Honeysuckle	All Zones
subspicata**	Chaparral Honeysuckle	C/I
Solanum		
jasminoides	Potato Vine	C/I/D

PERENNIALS		
Coreopsis		
gigantea	Giant Coreopsis	C
grandiflora	Coreopsis	All Zones
maritime	Sea Dahlia	C
verticillata	Coreopsis	C/I
Heuchera maxima	Island Coral Bells	C/I
Iris douglasiana**	Douglas Iris	C/M
Iva hayesiana**	Poverty Weed	C/I
Kniphofia uvaria	Red-Hot Poker	C/M
Lavandula spp.	Lavender	All Zones
Limonium californicum		
var. mexicanum	Coastal Statice	C
perezii	Sea Lavender	C/I
Oenothera spp.	Primrose	C/I/M
Penstemon spp.**	Penstemon	C/I/D
Satureja douglasii	Yerba Buena	C/I
Sisyrinchium		
bellum	Blue-Eyed Grass	C/I
californicum	Golden-Eyed Grass	C
Solanum		
xantii	Purple Nightshade	C/I
Zauschneria**		
californica	California Fuschia	C/I
cana	Hoary California Fuschia	C/I
'Catalina'	Catalina Fuschia	C/I

ANNUALS		
Lupinus spp.**	Lupine	C/I/M

APPENDIX C

UNDESIRABLE PLANT LIST

UNDESIRABLE PLANT LIST

The following species are highly flammable and should be avoided when planting within the first 50 feet adjacent to a structure. The plants listed below are more susceptible to burning, due to rough or peeling bark, production of large amounts of litter, vegetation that contains oils, resin, wax, or pitch, large amounts of dead material in the plant, or plantings with a high dead to live fuel ratio. Many of these species, if existing on the property and adequately maintained (pruning, thinning, irrigation, litter removal, and weeding), may remain as long as the potential for spreading a fire has been reduced or eliminated.

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<u>Abies species</u>	Fir Trees
<u>Acacia species</u>	Acacia (trees, shrubs, groundcovers)
<u>Adenostoma sparsifolium</u> **	Red Shanks
<u>Adenostoma fasciculatum</u> **	Chamise
<u>Agonis juniperina</u>	Juniper Myrtle
<u>Araucaria species</u>	Monkey Puzzle, Norfolk Island Pine
<u>Artemesia californica</u> **	California Sagebrush
<u>Bambusa species</u>	Bamboo
<u>Cedrus species</u>	Cedar
<u>Chamaecyparis species</u>	False Cypress
<u>Coprosma pumila</u>	Prostrate Coprosma
<u>Cryptomeria japonica</u>	Japanese Cryptomeria
<u>Cupressocyparis leylandii</u>	Leylandii Cypress
<u>Cupressus forbesii</u> **	Tecate Cypress
<u>Cupressus glabra</u>	Arizona Cypress
<u>Cupressus sempervirens</u>	Italian Cypress
<u>Dodonea viscosa</u>	Hopseed Bush
<u>Eriogonum fasciculatum</u> **	Common Buckwheat
<u>Eucalyptus species</u>	Eucalyptus
<u>Heterotheca grandiflora</u> **	Telegraph Plant
<u>Juniperus species</u>	Junipers
<u>Larix species</u>	Larch
<u>Lonicera japonica</u>	Japanese Honeysuckle
<u>Miscanthus species</u>	Eulalia Grass
<u>Muehlenbergia species</u> **	Deer Grass
<u>Palmae species</u>	Palms
<u>Picea species</u>	Spruce Trees
<u>Pickeringia Montana</u> **	Chaparral Pea
<u>Pinus species</u>	Pines
<u>Podocarpus species</u>	Fern Pine
<u>Pseudotsuga menziesii</u>	Douglas Fir
<u>Rosmarinus species</u>	Rosemary
<u>Salvia mellifera</u> **	Black Sage
<u>Taxodium species</u>	Cypress
<u>Taxus species</u>	Yew
<u>Thuja species</u>	Arborvitae
<u>Tsuga species</u>	Hemlock
<u>Urtica urens</u> **	Burning Nettle

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** San Diego County native species

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The CalEPPC List: Exotic Pest Plants of Greatest Ecological Concern in California

October, 1999

The CalEPPC list is based on information submitted by our members and by land managers, botanists and researchers throughout the state, and on published sources. The list highlights non-native plants that are serious problems **in wildlands** (natural areas that support native ecosystems, including national, state and local parks, ecological reserves, wildlife areas, national forests, BLM lands, etc.).

List categories include:

List A: Most Invasive Wildland Pest Plants; documented as aggressive invaders that displace natives and disrupt natural habitats. Includes two sub-lists; List A-1: Widespread pests that are invasive in more than 3 Jepson regions (see page 3), and List A-2: Regional pests invasive in 3 or fewer Jepson regions.

List B: Wildland Pest Plants of Lesser Invasiveness; invasive pest plants that spread less rapidly and cause a lesser degree of habitat disruption; may be widespread or regional.

Red Alert: Pest plants with potential to spread explosively; infestations currently small or localized. If found, alert CalEPPC, County Agricultural Commissioner or California Department of Food and Agriculture.

Need More Information: Plants for which current information does not adequately describe nature of threat to wildlands, distribution or invasiveness. Further information is requested from knowledgeable observers.

Annual Grasses: New in this edition; a preliminary list of annual grasses, abundant and widespread in California, that pose significant threats to wildlands. Information is requested to support further definition of this category in next List edition.

Considered But Not Listed: Plants that, after review of status, do not appear to pose a significant threat to wildlands.

Plants that fall into the following categories are not included in the List:

- Plants found mainly or solely in disturbed areas, such as roadsides and agricultural fields.
- Plants that are established only sparingly, with minimal impact on natural habitats.



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The CalEPPC list is updated regularly. Please use the form provided to send comments, suggestions or new information to: **Peter Warner, 555 Magnolia Avenue, Petaluma, CA, 94952-2080**, or via email at **peterjwarner@earthlink.net**

Thanks to all those who submitted comments for the 1999 list.

The California Exotic Pest Plant Council

List A-1: Most Invasive Wildland Pest Plants; Widespread

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ammophila arenaria</i>	European beach grass	Coastal dunes	SCo,CCo,NCo
<i>Arundo donax</i>	giant reed, arundo	Riparian areas	cSNF,CCo,SCo,SnGb,D,GV
<i>Bromus tectorum</i>	cheat grass, downy brome	Sagebrush, pinyon-juniper, other desert communities; increases fire frequency	GB,D
<i>Carpobrotus edulis</i>	iceplant, sea fig	Many coastal communities, esp. dunes	SCo,CCo,NCo,SnFrB
<i>Centaurea solstitialis</i> ^C	yellow starthistle	Grasslands	CA-FP (uncommon in SoCal)
<i>Cortaderia jubata</i>	Andean pampas grass, jubatagrass	Horticultural; many coastal habitats, esp. disturbed or exposed sites incl. logged areas	NCo,NCoRO,SnFrB,CCo,WTR,SCo
<i>Cortaderia selloana</i>	pampas grass	Horticultural; coastal dunes, coastal scrub, Monterey pine forest, riparian, grasslands; wetlands in ScV; also on serpentine	SnFrB,SCo,CCo,ScV
<i>Cynara cardunculus</i> ^B	artichoke thistle	Coastal grasslands	CA-FP, esp. CCo,SCo
<i>Cytisus scoparius</i> ^C	Scotch broom	Horticultural; coastal scrub, oak woodlands, Sierra foothills	NW,CaRF,SNF,GV,SCo,CW
<i>Eucalyptus globulus</i>	Tasmanian blue gum	Riparian areas, grasslands, moist slopes	NCoRO,GV,SnFrB,CCo,SCoRO,SCo,nChI
<i>Foeniculum vulgare</i>	wild fennel	Grasslands; esp. SoCal, Channel Is.; the cultivated garden herb is not invasive	CA-FP
<i>Genista monspessulana</i> ^C	French broom	Horticultural; coastal scrub, oak woodlands, grasslands	NCoRO,NCoRI,SnFrB,CCo,SCoRO,sChI,WTR,PR
<i>Lepidium latifolium</i> ^B	perennial pepperweed, tall whitetop	Coastal, inland marshes, riparian areas, wetlands, grasslands; potential to invade montane wetlands	CA (except KR,D)
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	Horticultural; lakes, ponds, streams, aquaculture	SnFrB,SnJV,SNH(?); prob. CA
<i>Pennisetum setaceum</i>	fountain grass	Horticultural; grasslands, dunes, desert canyons; roadsides	Deltaic GV,CCo,SCo,SnFrB
<i>Rubus discolor</i>	Himalayan blackberry	Riparian areas, marshes, oak woodlands	CA-FP
<i>Senecio mikanioides</i> (= <i>Delairea odorata</i>)	Cape ivy, German ivy	Coastal, riparian areas, also SoCal (south side San Gabriel Mtns.)	SCo,CCo,NCo,SnFrB,SW
<i>Taeniatherum caput-medusae</i> ^C	medusa-head	Grasslands, particularly alkaline and poorly drained areas	NCoR,CaR,SNF,GV,SCo
<i>Tamarix chinensis</i> , <i>T. gallica</i> , <i>T. parviflora</i> & <i>T. ramosissima</i>	tamarisk, salt cedar	Desert washes, riparian areas, seeps and springs	SCo,D,SnFrB,GV,sNCOR,sSNF,Teh,SCoRI,SNE,WTR
<i>Ulex europaeus</i> ^B	gorse	North, central coastal scrub, grasslands	NCo,NCoRO,CaRF,n&cSNF,SnFrB,CCo

¹Noxious Weed Ratings

- F: Federal Noxious Weed, as designated by the USDA; targeted for federally-funded prevention, eradication or containment efforts.
- A: CA Dept. of Food & Agriculture, on “A” list of Noxious Weeds; agency policies call for eradication, containment or entry refusal.
- B: CA Dept. of Food & Agriculture, on “B” list of Noxious Weeds; includes species that are more widespread, and therefore more difficult to contain; agency allows county Agricultural Commissioners to decide if local eradication or containment is warranted.
- C: CA Dept. of Food & Agriculture, on “C” list of Noxious Weeds; includes weeds that are so widespread that the agency does not endorse state or county-funded eradication or containment efforts except in nurseries or seed lots.
- Q: CA Dept. of Food & Agriculture’s designation for temporary “A” rating pending determination of a permanent rating.

For most species nomenclature follows *The Jepson Manual: Higher Plants of California* (Hickman, J., Ed., 1993).

Exotic Pest Plants of Greatest Ecological Concern in California

List A-2: Most Invasive Wildland Pest Plants; Regional

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ailanthus altissima</i>	tree of heaven	Riparian areas, grasslands, oak woodlands, esp. GV, SCo	CA-FP
<i>Atriplex semibaccata</i>	Australian saltbush	SoCal, coastal grasslands, scrub, "high marsh" of coastal salt marshes	CA (except CaR,c&sSN)
<i>Brassica tournefortii</i>	Moroccan or African mustard	Washes, alkaline flats, disturbed areas in Sonoran Desert	SW,D
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	Widespread; contributing to SoCal scrub, desert scrub type conversions; increases fire frequency	CA
<i>Cardaria draba</i> ^B	white-top, hoary cress	Riparian areas, marshes of central coast; also ag. lands, disturbed areas	Problem only in CCo
<i>Conicosia pugioniformis</i>	narrow-leaved iceplant, roundleaf iceplant	Coastal dunes, sandy soils near coast; best documented in San Luis Obispo and Santa Barbara cos.	CCo
<i>Cotoneaster pannosus</i> , <i>C. lacteus</i>	cotoneaster	Horticultural; many coastal communities; esp. North Coast, Big Sur; related species also invasive	CCo,SnFrB,NW
<i>Cytisus striatus</i>	striated broom	Often confused with <i>C. scoparius</i> ; coastal scrub, grassland	SnFrB,CCo,SCo,PR
<i>Egeria densa</i>	Brazilian waterweed	Streams, ponds, sloughs, lakes; Sacramento-San Joaquin Delta	n&sSNF,SnJV,SnFrB,SnJt,SNE
<i>Ehrharta calycina</i>	veldt grass	Sandy soils, esp. dunes; rapidly spreading on central coast	CCo,SCoRO,WTR
<i>Eichhornia crassipes</i>	water hyacinth	Horticultural; established in natural waterways, esp. troublesome in Sacramento-San Joaquin Delta	GV,SnFrB,SCo,PR
<i>Elaeagnus angustifolia</i>	Russian olive	Horticultural; interior riparian areas	SnJV,SnFrB,SNE,DMoj
<i>Euphorbia esula</i> ^A	leafy spurge	Rangelands in far no. CA, also reported from Los Angeles Co.	eKR,NCo,CaR,MP,SCo
<i>Ficus carica</i>	edible fig	Horticultural; Central Valley, foothill, South Coast and Channel Is. riparian woodlands	nSNF,GV,SnFrB,SCo
<i>Lupinus arboreus</i>	bush lupine	Native to SCo, CCo; invasive only in North Coast dunes	SCo,CCo,NCo
<i>Mentha pulegium</i>	pennyroyal	Santa Rosa Plain (Sonoma Co.) and Central Valley vernal pools; wetlands elsewhere	NW,GV,CW,SCo
<i>Myoporum laetum</i>	myoporum	Horticultural; coastal riparian areas in SCo	SCo,CCo
<i>Saponaria officinalis</i>	bouncing bet	Horticultural; meadows, riparian habitat in SNE, esp. Mono Basin	NW,CaRH,nSNF,SnFrB,SCoRO,SCo,PR,MP,SNE,GV
<i>Spartina alterniflora</i>	Atlantic or smooth cordgrass	S.F. Bay salt marshes; populations in Humboldt Bay believed extirpated	CCo(shores of S.F. Bay)

²Distribution by geographic subdivisions per the Jepson Manual

CA=California	GV=Great Valley	ScV=Sacramento Valley
CA-FP=California Floristic Province	KR=Klamath Ranges	SnJV=San Joaquin Valley
CaR=Cascade Ranges	MP=Modoc Plateau	SN=Sierra Nevada
CaRF=Cascade Range Foothills	NCo=North Coast	SNE=East of SN
CCo=Central Coast	NCoRI=Inner NCo Ranges	SNF=SN Foothills
ChI=Channel Islands	NCoRO=Outer NCo Ranges	SNH=High SN
CW=Central Western CA	NW=Northwestern CA	SnFrB=San Francisco Bay Area
D=Deserts	PR=Peninsular Ranges	SnGb=San Gabriel Mtns
DMoj=Mojave Desert	SCo=South Coast	SW=Southwestern CA
DSon=Sonoran Desert	SCoRI=Inner SCo Ranges	Teh=Tehachapi Mtns
GB=Great Basin	SCoRO=Outer SCo Ranges	WTR=Western Transverse Ranges

The California Exotic Pest Plant Council

List B: Wildland Pest Plants of Lesser Invasiveness

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ageratina adenophora</i> ^f	eupatory	Horticultural; coastal canyons, coastal scrub, slopes, Marin to San Diego Co; San Gabriel Mtns.	CCo,SnFrB,SCo,SCoRO
<i>Bassia hyssopifolia</i>	bassia	Alkaline habitats	CA (except NW,SNH)
<i>Bellardia trixago</i>	bellardia	Grasslands, on serpentine, where a threat to rare natives	NCoRO,CCo,SnFrB
<i>Brassica nigra</i>	black mustard	Coastal communities, esp. fog-belt grasslands; disturbed areas	CA-FP
<i>Cardaria chalapensis</i> ^B	lens-podded white-top	Wetlands of Central Valley	CA
<i>Carduus pycnocephalus</i> ^C	Italian thistle	Grasslands, shrublands, oak woodlands	sNCo,sNCoR,SNF,CW,SCo,ScV
<i>Centaurea calcitrapa</i> ^B	purple starthistle	Grasslands	NW,sCaRF,SNF,GV,CW,SW
<i>Centaurea melitensis</i>	tocalote, Malta starthistle	Widespread; sometimes misidentified as <i>C. solstitialis</i> ; perhaps a more serious invader than currently recognized	CA-FP,D
<i>Cirsium arvense</i> ^B	Canada thistle	Especially troublesome in riparian areas	CA-FP
<i>Cirsium vulgare</i>	bull thistle	Riparian areas, marshes, meadows	CA-FP,GB
<i>Conium maculatum</i>	poison hemlock	Mainly disturbed areas but may invade wildlands; known to poison wildlife; early expanding stage in many areas, esp. San Diego Co. riparian, oak understory	CA-FP
<i>Crataegus monogyna</i>	hawthorn	Horticultural; recent invader, colonizing healthy native forest around Crystal Springs reservoir on S.F. peninsula	SnFrB,CCo,NCo,NCoR
<i>Ehrharta erecta</i>	veldt grass	Wetlands, moist wildlands; common in urban areas; potential to spread rapidly in coastal, riparian, grassland habitats	SnFrB,CCo,SCo
<i>Erechtites glomerata</i> , <i>E. minima</i>	Australian fireweed	Coastal woodlands, scrub, NW forests, esp. redwoods	NCo,NCoRO,CCo,SnFrB,SCoRO
<i>Festuca arundinacea</i>	tall fescue	Horticultural (turf grass); coastal scrub, grasslands in NCo, CCo	CA-FP
<i>Hedera helix</i>	English ivy	Horticultural; invasive in coastal forests, riparian areas	CA-FP
<i>Holcus lanatus</i>	velvet grass	Coastal grasslands, wetlands in No. CA	CA exc. Dson
<i>Hypericum perforatum</i> ^C	Klamathweed, St. John's wort	Redwood forests, meadows, woodlands; invasion may occur due to lag in control by established biocontrol agents	NW,CaRH,n&cSN,ScV,CCo,SnFrB,PR
<i>Ilex aquifolium</i>	English holly	Horticultural; coastal forests, riparian areas	NCoRO,SnFrB,CCo
<i>Iris pseudacorus</i>	yellow water iris, yellow flag	Horticultural; riparian, wetland areas, esp. San Diego, Los Angeles cos.	SnFrB,CCo,sSnJV,SCo
<i>Leucanthemum vulgare</i>	ox-eye daisy	Horticultural; invades grassland, coastal scrub	KR,NCoRO,n&cSNH,SnFrB,WTR,PR
<i>Mesembryanthemum crystallinum</i>	crystalline iceplant	Coastal bluffs, dunes, scrub, grasslands; concentrates salt in soil	NCo,CCo,SCo,ChI
<i>Myriophyllum aquaticum</i>	parrot's feather	Horticultural; streams, lakes, ponds	NCo,CaRF,CW,SCo
<i>Olea europaea</i>	olive	Horticultural and agricultural; reported as invasive in riparian habitats in Santa Barbara, San Diego	NCoR,NCoRO,CCo,SnFrB,SCoRO,SCo
<i>Phalaris aquatica</i>	Harding grass	Coastal sites, esp. moist soils	NW,cSNF,CCo,SCo
<i>Potamogeton crispus</i>	curlyleaf pondweed	Scattered distribution in ponds, lakes, streams	NCoR,GV,CCo,SnFrB,SCo,ChI,SnGb,SnBr,DMoj
<i>Ricinus communis</i>	castor bean	SoCal coastal riparian habitats	GV,SCo,CCo
<i>Robinia pseudoacacia</i>	black locust	Horticultural; riparian areas, canyons; native to eastern U.S.	CA-FP,GB
<i>Schinus molle</i>	Peruvian pepper tree	Horticultural; invasive in riparian habitats in San Diego, Santa Cruz Is.	SNF,GV,CW,SW,Teh

Exotic Pest Plants of Greatest Ecological Concern in California

List B: Continued

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Schinus terebinthifolius</i>	Brazilian pepper	Horticultural; riparian areas	sSCo
<i>Senecio jacobaea</i> ^B	tansy ragwort	Grasslands; biocontrol agents established	NCo,wKR,s&wCaR, nSNF, nScV,SW
<i>Spartium junceum</i>	Spanish broom	Coastal scrub, grassland, wetlands, oak woodland, NW forests, esp. redwoods; also roadcuts	NCoRO,ScV,SnFrB, SCoRO,SCo,sChI,WTR
<i>Verbascum thapsus</i>	woolly or common mullein	SNE meadows, sagebrush, pinyon-juniper woodlands; shores of Boggs Lake (Lake Co.)	CA
<i>Vinca major</i>	periwinkle	Horticultural; riparian, oak woodland, other coastal habitats	NCoRO,SnFrB, CCo, sSCoRO,SCo

Red Alert: Species with potential to spread explosively; infestations currently restricted

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Alhagi pseudalhagi</i> ^A	camel thorn	Noxious weed of arid areas; most infestations in California have been eradicated	GV,sSNE,D
<i>Arctotheca calendula</i> ^A	Capeweed	Seed-producing types are the problem; most are vegetative only	NCo,SnFrB,CCo
<i>Centaurea maculosa</i> ^A	spotted knapweed	Riparian, grassland, wet meadows, forest habitats; contact CA Food & Ag if new occurrences found	CaR,SN,nScV,nCW,MP, nSNE,sPR,NW
<i>Crupina vulgaris</i> ^{F,A}	bearded creeper, common crupina	Aggressively moving into wildlands, esp. grassland habitats	NCoR (Sonoma Co.),MP
<i>Halogeton glomeratus</i> ^A	halogeton	Noxious weed of Great Basin rangelands; report locations to CA Food & Ag; goal is exclusion from CA	GB
<i>Helichrysum petiolare</i>	licorice plant	North coastal scrub; one population on Mt. Tamalpais, w. Marin Co.	Not in Jepson
<i>Hydrilla verticillata</i> ^{F,A}	hydrilla	Noxious water weed; report locations to CA Food & Ag; eradication program in place; found in Clear Lake (Lake Co.) in 1994	NCoRI,n&cSNF,ScV,SCo,D
<i>Lythrum salicaria</i> ^B	purple loosestrife	Horticultural; noxious weed of wetlands, riparian areas	sNCo,NCoRO,nSNF,ScV, SnFrB,nwMP
<i>Ononis alopecuroides</i> ^Q	foxtail restharrow	Eradication efforts underway in San Luis Obispo Co.; to be looked for elsewhere in CA	CCo; not in Jepson
<i>Retama monosperma</i>	bridal broom	First noted at Fallbrook Naval Weapons Station, San Diego Co; could rival other invasive brooms	San Diego Co.; not in Jepson
<i>Salvinia molesta</i> ^F	giant waterfern	Ponds, lakes, reservoirs, canals	Napa, Sonoma cos., lower Colorado River; not in Jepson
<i>Sapium sebiferum</i>	Chinese tallow tree	Horticultural; riparian, wetland habitats, open areas and understory	ScV,SnFrB; not in Jepson
<i>Sesbania punicea</i>	scarlet wisteria tree	Horticultural; riparian areas; American River Parkway, Sacramento Co., Suisun Marsh, San Joaquin River Parkway	ScV,SnJV; not in Jepson
<i>Spartina anglica</i>	cord grass	Scattered in S.F. Bay	Not in Jepson
<i>Spartina densiflora</i>	dense-flowered cord grass	Scattered in S.F. Bay, Humboldt Bay salt marshes	CCo,NCo
<i>Spartina patens</i>	salt-meadow cord grass	One site in S.F. Bay, also Siuslaw Estuary, OR and Puget Sound, WA	CCo

The California Exotic Pest Plant Council

Need More Information

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Acacia dealbata</i>	silver wattle	Aggressive in natural areas?	SnFRB,SCoRO,SCoRI,CCo
<i>Acacia decurrens</i>	green wattle	Sometimes confused with <i>A. dealbata</i> ; aggressive in natural areas?	Unknown
<i>Acacia melanoxylon</i>	blackwood acacia	Reported from S.F. Bay area, central coast, Santa Cruz Is.; spreads slowly; other areas?	SnFrB,SCoRO,SCo,CCo
<i>Aeschynomene rudis</i> ^B	rough jointvetch	Princeton area, Colusa Co.; pest of rice crops; potential threat to riparian, wetland habitats?	ScV
<i>Agrostis avenacea</i>	Pacific bentgrass	Invading vernal pools in San Diego area; attempts at manual eradication unsuccessful so far; problem in other areas?	sNCo,sNCoR,SNF, GV,CW,nSCo
<i>Aptenia cordifolia</i>	red apple	Habitats where invasive?	CCo,SCo,sChI
<i>Asphodelus fistulosus</i>	asphodel	Common in SCo highway rights-of-way, other disturbed sites; threats to wildlands?	sSnJV,SCo
<i>Carduus acanthoides</i> ^A	giant plumeless thistle	Threatens wildlands?	NCoRI,nSN,SnFrB, nSCoRO,MP
<i>Cistus ladanifer</i>	gum cistus	Horticultural; invades coastal sage scrub, chaparral; areas where problematic?	sCCo,SnGb
<i>Cordyline australis</i>	New Zealand cabbage	Infestation at Salt Point State Park; bird-dispersed; other problem areas?	Not in Jepson
<i>Cotoneaster</i> spp. (exc. <i>C. pannosus</i> , <i>C. lacteus</i>)	cotoneaster	Horticultural; bird-distributed; which species are problems in wildlands?	Unknown
<i>Cupressus macrocarpa</i>	Monterey cypress	Native only to Monterey Peninsula; planted and naturalized CCo, NCo; threat to wildlands?	CCo
<i>Descurainia sophia</i>	flixweed, tansy mustard	Entering Mojave wildlands through washes; threat to wildlands?	CA
<i>Dimorphotheca sinuata</i>	African daisy, Cape marigold	Horticultural; reported as invasive in w. Riverside Co., Ventura Co.; problem elsewhere?	SnJV,SCoRO,SCo,PR
<i>Echium candicans</i> , <i>E. pininana</i>	pride of Madeira, pride of Teneriffe	Horticultural; riparian, grassland, coastal scrub communities; spreads by seed	CCo,SnFrB,SCo,sNCo
<i>Ehrharta longiflora</i>	veldt grass	Reported from San Diego	Not in Jepson
<i>Erica lusitanica</i>	heath	Threat to wildlands?	NCo (Humboldt Co.)
<i>Euphorbia lathyris</i>	caper spurge, gopher plant	Invades coastal scrub, marshes, dunes; Sonoma, Marin cos.; threat to wildlands?	NCo,CCo,GV,SCo
<i>Gazania linearis</i>	gazania	Horticultural; invades grassland in S.F., coastal scrub?	CCo,SCo
<i>Glyceria declinata</i>		Although reported from Central Valley vernal pools, genetic research is needed to confirm identity; plants that have been called <i>G. declinata</i> key in Jepson to native <i>G. occidentalis</i>	Uncertain; not in Jepson
<i>Hedera canariensis</i>	Algerian ivy	Horticultural; invasive in riparian areas in SoCal?	Not in Jepson
<i>Hirschfeldia incana</i>	Mediterranean or short-pod mustard	Increasing in western, southern Mojave; threat to wildlands?	NCo,SNF,GV,CW,SCo, DMoj
<i>Hypericum canariense</i>	Canary Island hypericum	Reported in San Diego area, coastal sage scrub, grassland; threat to wildlands?	SCo
<i>Hypochaeris radicata</i>	rough cat's-ear	Widespread in coastal grasslands, wetlands; threat to wildlands?	NW,CaRF,nSNF,ScV, CW,SCo
<i>Isatis tinctoria</i> ^B	dyers' woad	Well-known invader in Utah; threat to wildlands?	KR,CaR,nSNH,MP
<i>Ligustrum lucidum</i>	glossy privet	Horticultural; spreading rapidly on Mendocino coast; problem in other areas?	NCo; not in Jepson
<i>Limonium ramosissimum</i> ssp. <i>provinciale</i>	sea lavender	Reported spreading in Carpinteria Salt Marsh; problem in other areas?	Not in Jepson

Exotic Pest Plants of Greatest Ecological Concern in California

Need More Information: Continued

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ludwigia uruguayensis</i> (= <i>L. hexapetala</i>)	water primrose	Invasive in aquatic habitats; non-native status questioned?	NCo,sNCoRO,CCo, SnFrB,SCo
<i>Malephora crocea</i>	ice plant	Invades margins of wetlands, bluffs along SCo	CCo,SCo,sChI
<i>Maytenus boaria</i>	mayten	Horticultural; scattered in riparian forests, ScV; east SnFrB	ScV,SnFrB
<i>Mesembryanthemum nodiflorum</i>	slender-leaved iceplant	Abundant on Channel Islands; invades wetlands; habitats where problematic?	SnFrB,SCo,ChI
<i>Nicotiana glauca</i>	tree tobacco	Disturbed places; not very competitive with natives in coastal scrub, chaparral; spreading along Putah Creek (Yolo Co.); problems elsewhere?	NCoRI,c&sSNF, GV,CW,SW,D
<i>Oxalis pes-caprae</i>	Bermuda buttercup	Invades disturbed sites; invasive in undisturbed habitats?	NCo,NCoRO,CCo, SnFrB,SCoRO,SCo
<i>Parentucellia viscosa</i>		Threat to NCo (Humboldt Co.) dune swales?	NCo,NCoRO,CCo,SCo
<i>Passiflora caerulea</i>		Horticultural; reported from SoCal; threat to wildlands?	SCo; not in Jepson
<i>Pennisetum clandestinum</i> ^{FC}	Kikuyu grass	Disturbed sites, roadsides; threat to wildlands?	NCo,CCo,SnFrB,SCo, Santa Cruz Is.
<i>Phyla nodiflora</i>	mat lippia	Most varieties in CA are native; taxonomy unclear; status of plants in vernal pools, wetlands?	NW(except KR,NCoRH), GV,CCo,SnFrB,SCo, PR,DSon
<i>Pinus radiata</i> cultivars	Monterey pine	Cultivars invading native Monterey, Cambria forests, where spread of pine pitch canker is a concern	CCo
<i>Piptatherum miliaceum</i>	smilo grass	Aggressive in SoCal creeks, canyons; threats to wildlands?	NCo,GV,CW,SCo
<i>Pistacia chinensis</i>	Chinese pistache	Horticultural; invades riparian areas and woodlands in ScV	ScV
<i>Prunus cerasifera</i>	cherry plum	Oak woodland, riparian areas; esp. Marin, Sonoma cos.; bird-distributed; problems elsewhere?	SnFrB,CCo
<i>Pyracantha angustifolia</i>	pyracantha	Horticultural; spreads from seed in S.F. Bay area; bird-distributed; problem elsewhere?	sNCoRO,CCo,SnFrB, SCo
<i>Salsola soda</i>	glasswort	Threat to salt marshes?	nCCo,SnFrB
<i>Salsola tragus</i> ^C	Russian thistle, tumbleweed	Abundant in dry open areas in w. Mojave Desert, Great Basin; not limited to disturbed sites; threats?	CA
<i>Salvia aethiops</i> ^B	Mediterranean sage	Creates monocultures in E. Oregon grasslands; threat to CA wildlands?	MP
<i>Stipa capensis</i>		Distribution and threats?	Not in Jepson
<i>Tamarix aphylla</i>	athel	Spreading in Salton Sea area; threats to wildlands?	nSnJV,nSCo,D
<i>Tanacetum vulgare</i>	common tansy	Jepson reports as uncommon, escape from cultivation in urban areas; problem in wildlands?	NCo,NCoRO,CaRH, SCoRO
<i>Verbena bonariensis</i> , <i>V. litoralis</i>	tall vervain	Horticultural; invades riparian forests, wetlands; extensive along ScV riparian corridors; roadsides (Yuba Co.); elsewhere?	ScV,nSnJV,nSnFrB,CCo



The California Exotic Pest Plant Council

Annual Grasses

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Aegilops triuncialis</i> ^B	barbed goatgrass	Serpentine soils, grasslands	sNCoR, CaRF, n&cSNF, ScV, nCW
<i>Avena barbata</i>	slender wild oat	Lower elev. in SoCal; coastal slopes, coastal sage scrub, disturbed sites	CA-FP, MP, DMoj
<i>Avena fatua</i>	wild oat	Lower elev. in SoCal; coastal slopes, coastal sage scrub on deeper soil, disturbed sites	CA-FP, MP, DMoj
<i>Brachypodium distachyon</i>	false brome	Expanding in SoCal; common in Orange Co.	sNCoR, sCaRF, SNF, GV, CW, SCo, sChI
<i>Bromus diandrus</i>	ripgut brome	Coastal dunes, coastal sage scrub, grasslands	CA
<i>Lolium multiflorum</i>	Italian ryegrass	Wetland areas, esp. vernal pools in San Diego Co.; common in disturbed sites	CA-FP
<i>Schismus arabicus</i>	Mediterranean grass	Threat to Mojave and Colorado desert shrublands?	SnJV, CW, sChI, D
<i>Schismus barbatus</i>	Mediterranean grass	Threat to Mojave and Colorado desert shrublands?	SnJV, SW, D

Considered, but not listed

Latin Name ¹	Common Name	Habitats of Concern and Other Comments
<i>Albizia lophantha</i>	plume acacia	Not invasive
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Disturbed sites on coast; Marin, Sonoma, Mendocino cos.
<i>Carpobrotus chilensis</i>	sea fig	Native status in question; not a threat to wildlands
<i>Centranthus ruber</i>	red valerian	Horticultural; roadcuts in Marin Co.; not a threat to wildlands
<i>Convolvulus arvensis</i> ^C	field bindweed	Disturbed sites; ag lands
<i>Coprosma repens</i>	mirror plant	No evidence of wildland threat
<i>Crocosmia x crocosmiiflora</i>		Generally in disturbed coastal, urban areas, roadsides
<i>Digitalis purpurea</i>	foxglove	Horticultural; scattered in prairies, meadows, disturbed sites; not a major wildland threat
<i>Dipsacus sativus</i> , <i>D. fullonum</i>	wild teasel, Fuller's teasel	Roadsides, disturbed sites
<i>Fumaria officinalis</i> , <i>F. parviflora</i>	fumitory	S.F. Bay area, Monterey Bay salt marshes, sandy disturbed sites
<i>Medicago polymorpha</i>	California bur clover	Grasslands, moist sites; mainly restricted to disturbed sites
<i>Melilotus officinalis</i>	yellow sweet clover	Restricted to disturbed sites in CA
<i>Nerium oleander</i>	oleander	Horticultural; not invasive, although reported from riparian areas in Central Valley, San Bernardino Mtns.
<i>Picris echioides</i>	bristly ox-tongue	Disturbed areas
<i>Silybum marianum</i>	milk thistle	Disturbed areas, especially overgrazed moist pasturelands; may interfere with restoration
<i>Xanthium spinosum</i>	spiny cocklebur	Identified as native in <i>The Jepson Manual</i> (Hickman, 1993) and <i>A California Flora</i> (Munz and Keck, 1968); restricted to disturbed areas
<i>Zantedeschia aethiopica</i>	calla lily	Horticultural; mainly a garden escape in wet coastal areas
<i>Zoysia cultivars</i>	Amazoy and others	Horticultural; no evidence of wildland threat

Figure 8 - Fuel Management Zone Map - Option 1
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Legend:

-  Zone A - 100' around parcels adjacent to open space except parcels 5-13
 10' Adjacent to Roads through Open Space
-  Zone B - Additional 50' fire clearing
-  Zone C - Parcels 246 and 427
 Approximately 200' at head of drainage
-  Limited Building Zone
 30' from Project Boundary Adjacent to Developed Land
 100' to 150' adjacent to Proposed Open Space
 Except Parcels 5-13, 50' for Parcels 5-13



