APPENDIX B: BIOLOGICAL RESOURCES

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California Natural Diversity Database (CNDDB) Commercial [ds85]

SCIENTIFIC NAME	COMMON NAME	ELEMENT CODE	OCC NUMBER	MAPNDX	EONDX	KEY QUAD CODE	KEY QUAD NAME	KEY COUNTY CODE	ACCURACY	PRESENCE	Occ Type	OCC RANK	SENSITIVE	SITE DATE	ELM DATE	OWNER MANAGEMENT	Federal Status	State Status	GLOBAL RANK	STATE RANK	RARE PLANT RANK	CDFW Status	Other Status	Symbology
Lasthenia conjugens	Contra Costa goldfields	PDAST5L040	14	10426	16730	3712137	San Jose East	SCL	1/5 mile	Extirpated	Natural/Native occurrence	None	N	19580323	19580323	PVT	Endangered	None	G1	S1	1B.1		SB_UCBBG	105
Plagiobothrys glaber	hairless popcornflower	PDBOR0V0B0	3	28364	22576	3712137	San Jose East	SCL	1 mile	Possibly Extirpated	Natural/Native occurrence	Unknown	N	19550602	19550602	UNKNOWN	None	None	GH	SH	1A			109
Ambystoma californiense	California tiger salamander	AAAAA01180	392	33481	16990	3712137	San Jose East	SCL	80 meters	Extirpated	Natural/Native occurrence	None	N	20021118	19950214	PVT	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	201
Ambystoma californiense	California tiger salamander	AAAAA01180	431	38731	33738	3712137	San Jose East	SCL	80 meters	Extirpated	Natural/Native occurrence	None	N	19980419	19980419	PVT	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	201
Ambystoma californiense	California tiger salamander	AAAAA01180	498	44129	44129	3712137	San Jose East	SCL	specific area	Extirpated	Natural/Native occurrence	None	N	19960802	19960503	PVT	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	202
Ambystoma californiense	California tiger salamander	AAAAA01180	548	45868	45868	3712137	San Jose East	SCL	nonspecific area	Extirpated	Natural/Native occurrence	None	N	1977XXXX	1977XXXX	UNKNOWN	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	203
Emys marmorata	western pond turtle	ARAAD02030	189	46405	46405	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20010906	20010906	SCL COUNTY-HELLYER PARK	None	None	G3G4	S3		SSC	BLM_S; IUCN_VU; USFS_S	201
Ambystoma californiense	California tiger salamander	AAAAA01180	41	37885	32892	3712138	San Jose West	SCL	5 miles	Extirpated	Natural/Native occurrence	None	N	18950109	18950109	UNKNOWN	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	810
Euphydryas editha bayensis	Bay checkerspot butterfly	IILEPK4055	13	38615	33622	3712137	San Jose East	SCL	nonspecific area	Presumed Extant	Natural/Native occurrence	Good	N	19990430	19990430	PVT	Threatened	None	G5T1	S1			XERCES_CI	203
Ambystoma californiense	California tiger salamander	AAAAA01180	445	40553	35560	3712137	San Jose East	SCL	80 meters	Extirpated	Natural/Native occurrence	None	N	20000122	20000122	PVT	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	201
Chorizanthe robusta var. robusta	robust spineflower	PDPGN040Q2	19	37885	41067	3712138	San Jose West	SCL	5 miles	Possibly Extirpated	Natural/Native occurrence	None	N	1882XXXX	1882XXXX	UNKNOWN	Endangered	None	G2T1	S1	1B.1		BLM_S	810
Centromadia parryi ssp. congdonii	Congdon's tarplant	PDAST4R0P1	40	42346	42346	3712137	San Jose East	SCL	5 miles	Extirpated	Natural/Native occurrence	None	N	19981004	19080919	UNKNOWN	None	None	G3T2	S2	1B.1		BLM_S; SB_RSABG	110
Athene cunicularia	burrowing owl	ABNSB10010	354	42530	42530	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20000302	20000302	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	201
Adela oplerella	Opler's longhorn moth	IILEE0G040	6	42583	42583	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	1999XXXX	1999XXXX	PVT	None	None	G2	S2				201
Athene cunicularia	burrowing owl	ABNSB10010	395	44368	44368	3712136	Lick Observatory	SCL	1 mile	Presumed Extant	Natural/Native occurrence	Fair	N	19901024	19901024	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	209

California Natural Diversity Database (CNDDB) Commercial [ds85]

SCIENTIFIC NAME	COMMON NAME	ELEMENT CODE	OCC NUMBER	MAPNDX	EONDX	KEY QUAD CODE	KEY QUAD NAME	KEY COUNTY CODE	ACCURACY	PRESENCE	Occ Type	OCC RANK	SENSITIVE	SITE DATE	ELM DATE	OWNER MANAGEMENT	Federal Status	State Status	GLOBAL RANK	STATE RANK	RARE PLANT RANK	CDFW Status	Other Status	Symbology
Ambystoma californiense	California tiger salamander	AAAAA01180	537	45817	45817	3712137	San Jose East	SCL	1/5 mile	Extirpated	Natural/Native occurrence	None	N	20021118	197005XX	UNKNOWN	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	205
Ambystoma californiense	California tiger salamander	AAAAA01180	606	46406	46406	3712137	San Jose East	SCL	1/5 mile	Extirpated	Natural/Native occurrence	None	N	1969XXXX	1969XXXX	UNKNOWN	Threatened	Threatened	G2G3	S2S3		WL	IUCN_VU	205
Athene cunicularia	burrowing owl	ABNSB10010	401	45368	45368	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Poor	N	20080529	20020418	CITY OF SAN JOSE	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	202
Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	21	53396	53396	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20100419	20100419	PVT	None	None	G2	S2	1B.2		BLM_S; USFS_S	101
Collinsia multicolor	San Francisco collinsia	PDSCR0H0B0	2	56836	56852	3712137	San Jose East	SCL	4/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	XXXXXXXX	XXXXXXXX	UNKNOWN	None	None	G2	S2	1B.2		SB_RSABG	108
Athene cunicularia	burrowing owl	ABNSB10010	724	58507	58543	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Poor	N	20080529	20040715	SJ CITY-LAKE CUNNINGHAM PARK	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	201
Microcina homi	Hom's micro-blind harvestman	ILARA47020	3	58583	58619	3712137	San Jose East	SCL	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	19660227	19660227	UNKNOWN	None	None	G1	S1				203
California macrophylla	round-leaved filaree	PDGER01070	93	66977	67126	3712137	San Jose East	SCL	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19550411	19550411	UNKNOWN	None	None	G3?	S3?	1B.2		BLM_S; SB_RSABG; SB_SBBG	109
Athene cunicularia	burrowing owl	ABNSB10010	429	46972	46972	3712137	San Jose East	SCL	nonspecific area	Presumed Extant	Natural/Native occurrence	Fair	N	20090626	20090626	PVT	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	203
Antrozous pallidus	pallid bat	AMACC10010	421	78658	79603	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20070814	20070814	PVT	None	None	G5	S3		SSC	BLM_S; IUCN_LC; USFS_S; WBWG_H	801
Myotis evotis	long-eared myotis	AMACC01070	108	78658	79614	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20070814	20070814	PVT	None	None	G5	S3			BLM_S; IUCN_LC; WBWG_M	801
Fritillaria liliacea	fragrant fritillary	PMLIL0V0C0	32	25034	6266	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	2007XXXX	2007XXXX	CITY OF SAN JOSE	None	None	G2	S2	1B.2		USFS_S	102
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	PDBRA2G011	15	21194	1299	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20130529	20130529	CITY OF SAN JOSE	Endangered	None	G2T1	S1	1B.1		BLM_S; SB_RSABG	102
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	PDBRA2G011	18	26622	1301	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20130529	20130529	CITY OF SAN JOSE	Endangered	None	G2T1	S1	1B.1		BLM_S; SB_RSABG	102
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	PDBRA2G011	26	90470	91582	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20130529	20130529	UNKNOWN	Endangered	None	G2T1	S1	1B.1		BLM_S; SB_RSABG	102

California Natural Diversity Database (CNDDB) Commercial [ds85]

SCIENTIFIC NAME	COMMON NAME	ELEMENT CODE	OCC NUMBER	MAPNDX	EONDX	KEY QUAD CODE	KEY QUAD NAME	KEY COUNTY CODE	ACCURACY	PRESENCE	Occ Type	OCC RANK	SENSITIVE	SITE DATE	ELM DATE	OWNER MANAGEMENT	Federal Status	State Status	GLOBAL RANK	STATE RANK	RARE PLANT RANK	CDFW Status	Other Status	Symbology
Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	417	92372	93482	3712137	San Jose East	SCL	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19330802	19330802	UNKNOWN	None	Candidate Threatened	G3G4	S2		SSC	BLM_S; IUCN_LC; USFS_S; WBWG_H	209
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	PDAST2E163	22	10525	9145	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20070719	20070719	CITY OF SAN JOSE	None	None	G2T2	S2	1B.2		BLM_S	102
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	PDAST2E163	44	31113	3358	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20070719	20070719	CITY OF SAN JOSE	None	None	G2T2	S2	1B.2		BLM_S	102
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	PDAST2E163	59	92863	94017	3712137	San Jose East	SCL	specific area	Presumed Extant	Introduced Back into Native Hab./Range	Unknown	N	20070719	20070719	CITY OF SAN JOSE	None	None	G2T2	S2	1B.2		BLM_S	102
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	PDCRA040Z0	7	20912	27281	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20130529	20130529	PVT, CITY OF SAN JOSE	Endangered	None	G4T2	S2	1B.1		SB_RSABG	102
Malacothamnus hallii	Hall's bush-mallow	PDMAL0Q0F0	8	96214	30516	3712137	San Jose East	SCL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20070522	20070522	CITY OF SAN JOSE	None	None	G2	S2	1B.2		BLM_S	101
Malacothamnus hallii	Hall's bush-mallow	PDMAL0Q0F0	44	96237	97397	3712137	San Jose East	SCL	specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	200905XX	200905XX	SCL COUNTY	None	None	G2	S2	1B.2		BLM_S	102
Bombus caliginosus	obscure bumble bee	IIHYM24380	133	37885	97970	3712138	San Jose West	SCL	5 miles	Presumed Extant	Natural/Native occurrence	Unknown	N	19540412	19540412	UNKNOWN	None	None	G4?	S1S2			IUCN_VU	810
Bombus crotchii	Crotch bumble bee	IIHYM24480	23	37885	98636	3712138	San Jose West	SCL	5 miles	Presumed Extant	Natural/Native occurrence	Unknown	N	19030415	19030415	UNKNOWN	None	None	G3G4	S1S2				810
Bombus occidentalis	western bumble bee	IIHYM24250	254	37885	100359	3712138	San Jose West	SCL	5 miles	Presumed Extant	Natural/Native occurrence	Unknown	N	19791001	19791001	UNKNOWN	None	None	G2G3	S1			USFS_S; XERCES_IM	810
Agelaius tricolor	tricolored blackbird	ABPBXB0020	845	A0327	101887	3712137	San Jose East	SCL	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	20140419	19940502	SJ CITY-LAKE CUNNINGHAM PARK	None	None	G2G3	S1S2		SSC	BLM_S; IUCN_EN; NABCI_RWL; USFWS_BCC	206

CNPS California Native Plant Society

Rare and Endangered Plant Inventory

Search Criteria
Found in Quad **37121C7**

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	4.2	S3S4	G5?T3T4
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B.2	S3?	G3?
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	1B.1	S2	G3T2
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	Asteraceae	perennial herb	1B.2	S2	G2T2
Clarkia concinna ssp. automixa	Santa Clara red ribbons	Onagraceae	annual herb	4.3	S3	G5?T3

Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb	1B.2	S2	G2
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Crassulaceae	perennial herb	1B.1	S2	G4T2
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	1B.2	S2	G2
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	1B.1	S1	G1
Lessingia micradenia var. glabrata	smooth lessingia	Asteraceae	annual herb	1B.2	S2	G2T2
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	S2	G2
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	S3S4	G3G4
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	annual herb	1A	SH	GH
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	2B.2	S2	G3
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	Brassicaceae	annual herb	1B.1	S1	G2T1

Suggested Citation

CNPS, Rare Plant Program. 2016. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 10 August 2016].

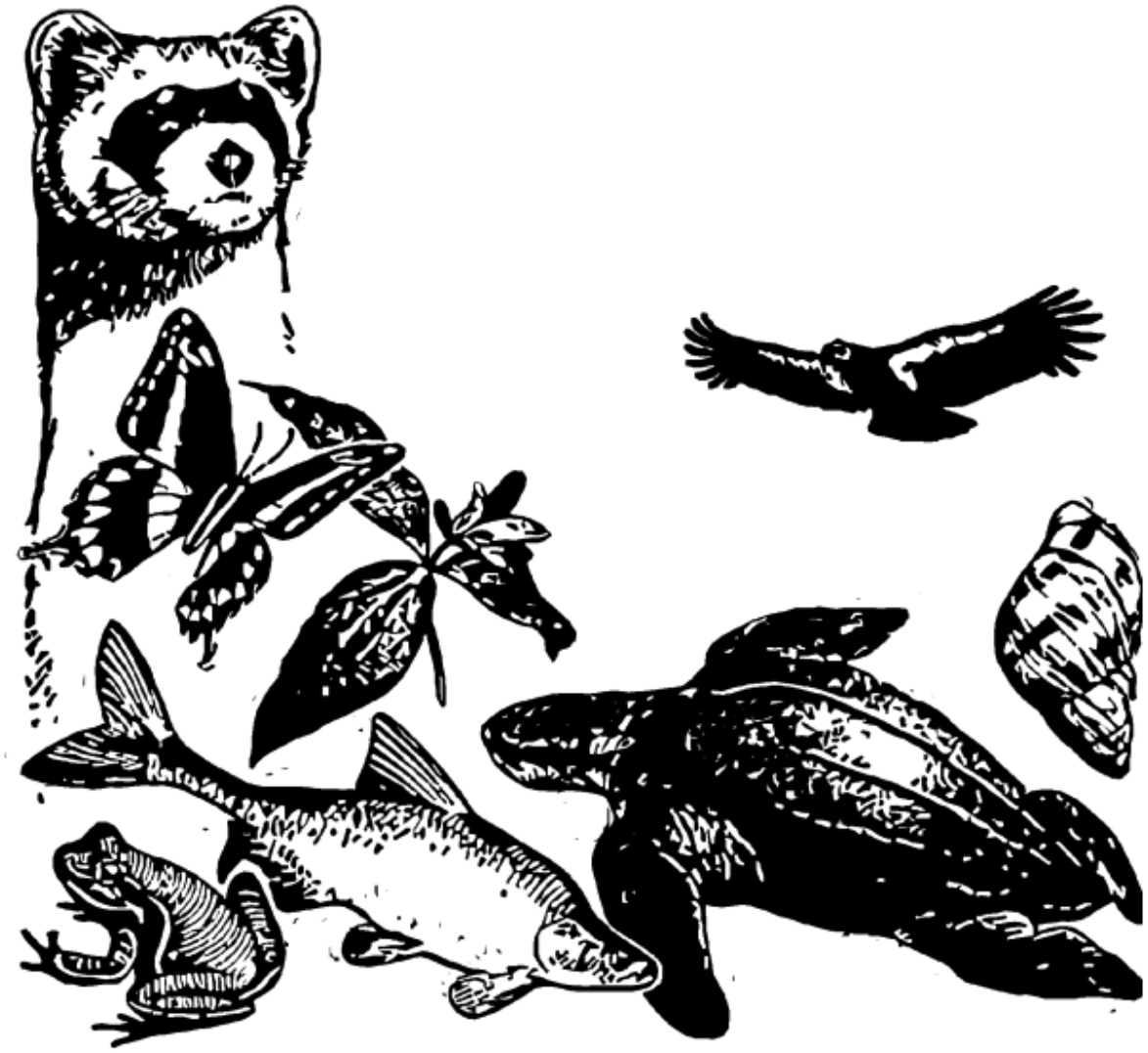
U.S. Fish & Wildlife Service

Oakmount of Evergreen

IPaC Trust Resources Report

Generated August 10, 2016 11:29 PM MDT, IPaC v3.0.8

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



IPaC - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process.

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U.S. Fish & Wildlife Service

IPaC Trust Resources Report

NAME

Oakmount of Evergreen

LOCATION

Santa Clara County, California

IPAC LINK

https://ecos.fws.gov/ipac/project/OMXNO-CDLQJ-CCPMW-JJ3M5-VMPF6A

U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Amphibians

California Red-legged Frog Rana draytonii — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=D02D

California Tiger Salamander Ambystoma californiense — Threatened

CRITICAL HABITAT
There is **final** critical habitat designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=D01T

Birds

California Least Tern Sterna antillarum browni — Endangered

CRITICAL HABITAT
No critical habitat has been designated for this species.
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B03X

Fishes

Delta Smelt Hypomesus transpacificus — Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E070

Steelhead Oncorhynchus (=Salmo) mykiss — Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E08D

Flowering Plants

Contra Costa Goldfields Lasthenia conjugens — Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q122

Metcalf Canyon Jewelflower Streptanthus albidus ssp. albidus — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q222

Robust Spineflower Chorizanthe robusta var. robusta — Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q3O7

Santa Clara Valley Dudleya Dudleya setchellii — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=Q32V

Insects

Bay Checkerspot Butterfly Euphydryas editha bayensis — Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=I021

Mammals

San Joaquin Kit Fox Vulpes macrotis mutica — Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A006

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
  http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds
  http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data
  http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The following species of migratory birds could potentially be affected by activities in this location:

Allen's Hummingbird Selasphorus sasin — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0LI

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Bell's Sparrow Amphispiza belli — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HE

Black Rail Laterallus jamaicensis — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09A

Black Swift Cypseloides niger — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FW

Black-chinned Sparrow Spizella atrogularis — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0IR

Burrowing Owl Athene cunicularia — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC

Costa's Hummingbird Calypte costae — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JE

Fox Sparrow Passerella iliaca — Bird of conservation concern
Season: Wintering

Lawrence's Goldfinch Carduelis lawrencei — Bird of conservation concern
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0J8

Least Bittern Ixobrychus exilis
Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092

Lesser Yellowlegs Tringa flavipes — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MD

Lewis's Woodpecker Melanerpes lewis — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HQ

Long-billed Curlew Numenius americanus — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S

Marbled Godwit Limosa fedoa — Bird of conservation concern
Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JL

Nuttall's Woodpecker Picoides nuttallii — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HT

Oak Titmouse Baeolophus inornatus — Bird of conservation concern
Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MJ

Olive-sided Flycatcher Contopus cooperi — Bird of conservation concern

Season: Breeding
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN

Peregrine Falcon Falco peregrinus — Bird of conservation concern

Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Rufous-crowned Sparrow Aimophila ruficeps — Bird of conservation concern

Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0MX

Short-billed Dowitcher Limnodromus griseus — Bird of conservation concern

Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0JK

Short-eared Owl Asio flammeus — Bird of conservation concern

Season: Wintering
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Western Grebe aechmophorus occidentalis — Bird of conservation concern

Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EA

Yellow-billed Magpie Pica nuttalli — Bird of conservation concern

Season: Year-round
http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0N8

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands in this location

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B-2: Arborist Report

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CERTIFIED ARBORIST REPORT

Date: November 23, 2015
Project #4771.00

PROJECT
Oakmont Senior Living
At San Felipe
3550 San Felipe
San Jose, CA

PREPARED FOR
Oakmont Senior Living
9420 Old Redwood Hwy., Suite 200
Windsor, CA 95492

PREPARED BY
HMH
1570 Oakland Road
San Jose, CA 95131
Lisa Harris
ISA Certified Arborist #WE-9977A

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LIST OF EXHIBITS, TABLES AND ADDENDUMS

INTRODUCTION AND OVERVIEW

HMH was contracted by Oakmont Senior Living to complete a tree survey, assessment and arborist report for the entire site located at 3550 San Felipe Road in San Jose. The site consists of a several dwellings, a large open field. It is surrounded by a residential development along the Eastern boundary, a commercial/retail building at the Southeast boundary, and Evergreen Valley Church along the Northern boundary. The site also fronts San Felipe road at two locations. The parcels include in the arborist report are: 659-04-15, 16, and 17. The site is mostly flat, sloping slightly to the North. Our scope of services includes tagging, measuring DBH, assessing, and photographing the condition of all trees on site. Disposition recommendations are based on the assumption that the site may be developed. No evidence of an irrigation system was found. HMH was also scoped to provide topographic survey, including trees. Approximate dripline radius is shown on each tree topo point, and the dripline grade can be interpolated from adjacent ground shots. This will be useful for protecting trees to remain during site design and construction.

METHODOLOGY

Our tree survey work is a deliberate and systematic methodology for cataloging trees on site:

1. Identify each tree species.
2. Tag each tree with a metal tag and note its location on a map.
3. Measure each trunk circumference at 24" above grade per ISA standards.
4. Evaluate the health and structure of each tree using the following numerical standard:

   5 *- A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.*

   4 *- A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.*

   3 *- A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.*

   2 *- A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.*

   1 *- A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.*

   0 - Tree is dead.

SUMMARY OF FINDINGS

On November 5 and 6, 2015, HMH conducted a tree inventory of 107 trees located on the 3 parcels. The majority of trees are Schinus molle (22%), Eucalyptus globulus (21%) and Quercus agrifolia (native tree) (14%). The health of the trees inspected varies greatly. There are several completely dead trees and several volunteer trees as well as dense clusters of Schinus molle and large stands of Eucalyptus globulus.

Trees that may be considered for preservation are:
801 (Quercus agrifolia): Likely a shared PL tree
805 (Quercus agrifolia): Large low branching specimen
811 (Quercus lobata): Near boundary
813 (Quercus agrifolia): Large low branching specimen
847 (Quercus agrifolia): Large upright specimen
855 (Quercus agrifolia): Large upright specimen
856 (Quercus lobata): Large upright specimen, consider with tree 855 only

These trees have been indicated on the Tree Location Map with an asterisk after the tree number. Dripline extents are roughly shown for reference.

Table 1 - Tree Quantity Summary summarizes tree quantities by both species and size. This is a useful tool for analyzing the mixture of trees as part of the project. The size table is useful when calculating mitigation requirements in the case of tree removal as well as aiding in determining tree maturity.

Table 2 - Tree Evaluation Summary lists each tree tag number, botanical name, common name, DBH, circumference, ordinance sized trees, health rating, preservation suitability, general notes and observations and recommendations.

See Exhibit A for Tree Location Map
See Table 1 for Tree Quantity Summary by species and size.
See Table 2 for Tree Evaluation Summary for sizes, notes and recommendations regarding each tree.

SAN JOSE MUNICIPAL CODE GOVERNING TREES

The City of San Jose Municipal Code includes two chapters regarding trees:

Chapter 13.28 Trees, Hedges and Shrubs
Chapter 13.32 Tree Removal Controls

Per the municipal code, a tree is defined as: *"any growing plant exceeding six feet in height, whether planted singly or as a hedge"* (13.28.010).

"Heritage tree" is defined as: *"Any tree which, because of factors including but not limited to its history, girth, height, species or unique quality, has been found by the city council to have a special significance to the community shall be designated a heritage tree. Such trees shall be placed on a heritage tree list which shall be adopted by the city council by resolution, which resolution may be amended from time to time to add to or delete certain trees therefrom"* (13.28.330).

"Ordinance tree" is defined as: *"a tree defined in this section herein below and whose removal or topping is covered by and subject to the provisions of this chapter....tree means any live or dead woody perennial plant characterized by having a main stem or trunk which measures fifty-six inches or more in circumference at a height of twenty four inches above natural grade slope. For purposes of this chapter, a multi-trunk tree shall be considered a single tree and measurement of that tree shall include the sum of the circumference of the trunks of that tree at a height of twenty-four inches above natural grade slope. "Tree" shall include the plural of that term"* (13.32.020).

"Remove" means eliminate, take away, uproot or destroy...also means taking any action that reasonably and foreseeably will lead to the death of a tree or to permanent significant damage to the health or structural integrity of a tree. Such actions can include, without limitation and by way of example, excessive pruning, cutting, girding, poisoning, or watering of a tree; the unauthorized relocation or transportation of a tree; excessive excavation, alteration, or grading

of the soil within the dripline of a tree, or excessively bruising, tearing or breaking the roots, bark, trunk or branches of a tree" (13.32.020).

"Topping" means cutting the branches of an ordinance tree in a manner that destroys the existing symmetrical appearance or natural shape of the tree and involves the removal of main lateral branches and leaving the trunk of the tree or major branches of the tree with a stub appearance" (13.32.020).

The City of San Jose Guidelines for Inventorying, Evaluating, and Mitigating Impacts to Landscaping Trees in the City of San Jose, rev 5/31/06 states: *"Multi-stem trees - all tree stems shall be measured at two feet above the ground, the sum of all these measurements equals the diameter of the tree for ordinance and mitigation purposes."*

RECOMMENDATIONS FOR TREE PROTECTION DURING CONSTRUCTION

Site preparation: All existing trees shall be fenced off 10' beyond the outside the drip line (foliar spread) of the tree. Alternatively, where this is not feasible, fence to the drip line of the tree. Where fencing is not possible, the trunk shall be protected straw waddle and orange snow fencing. The fence should be a minimum of six feet high, made of pig wire with steel stakes or any material superior in quality, such as cyclone fencing. Tree protection zone sign shall be affixed to fencing at appropriate intervals as determined by the arborist on site. If the fence is within the drip line of the trees, the foliar fringe shall be raised to offset the chance of limb breakage from construction equipment encroaching within the drip line. All contractors, subcontractors and other personnel shall be warned that encroachment within the fenced area is forbidden without the consent of the certified arborist on the job. This includes, but is not limited to, storage of lumber and other materials, disposal of paints, solvents or other noxious materials, parked cars, grading equipment or other heavy equipment. Penalties, based on the cost of remedial repairs and the evaluation guide published by the international society of arboriculture, shall be assessed for damages to the trees. See tree preservation detail for additional information, including tree protection zone sign.

Grading/excavating: All grading plans that specify grading within the drip line of any tree, or within the distance from the trunk as outlined in the site preparation section above when said distance is outside the drip line, shall first be reviewed by a certified arborist. Provisions for aeration, drainage, pruning, tunneling beneath roots, root pruning or other necessary actions to protect the trees shall be outlined by an arborist. If trenching is necessary within the area as described above, said trenching shall be undertaken by hand labor and dug directly beneath the trunk of the tree. All roots 2 inches or larger shall be tunneled under and other roots shall be cut smoothly to the trunk side of the trench. The trunk side should be draped immediately with two layers of untreated burlap to a depth of 3 feet from the surface. The burlap shall be soaked nightly and left in place until the trench is back filled to the original level. An arborist shall examine the trench prior to back filling to ascertain the number and size of roots cut, so as to suggest the necessary remedial repairs.

Remedial repairs: An arborist shall have the responsibility of observing all ongoing activities that may affect the trees, and prescribing necessary remedial work to ensure the health and stability of the trees. This includes, but is not limited to, all arborist activities brought out in the previous sections. In addition, pruning, as outlined in the "pruning standards" of the western chapter of the International Society of Arboriculture, shall be prescribed as necessary. Fertilizing, aeration, irrigation, pest control and other activities shall be prescribed according to the tree needs, local site requirements, and state agricultural pest control laws. All specifications shall be in writing. For pest control operations, consult the local county agricultural commissioner's office for individuals licensed as pest control advisors or pest control operators.

Final inspection: Upon completion of the project, the arborist shall review all work undertaken that may impact the existing trees. Special attention shall be given to cuts and fills, compacting, drainage, pruning and future remedial work. An arborist should submit a final report in writing outlining the ongoing remedial care following the final inspection.

MAINTENANCE RECOMMENDATIONS FOR TREES TO REMAIN

Regular maintenance, designed to promote plant health and vigor, ensures longevity of existing trees. Regular inspections and the necessary follow-up care of mulching, fertilizing, and pruning, can detect problems and correct them before they become damaging or fatal.

Tree Inspection: Regular inspections of mature trees at least once a year can prevent or reduce the severity of future disease, insect, and environmental problems. During tree inspection, four characteristics of tree vigor should be examined: new leaves or buds, leaf size, twig growth, and absence of crown dieback (gradual death of the upper part of the tree). A reduction in the extension of shoots (new growing parts), such as buds or new leaves, is a fairly reliable cue that the tree's health has recently changed. Growth of the shoots over the past three years may be compared to determine whether there is a reduction in the tree's typical growth pattern. Further signs of poor tree health are trunk decay, crown dieback, or both. These symptoms often indicate problems that began several years before. Loose bark or deformed growths, such as trunk conks (mushrooms), are common signs of stem decay. Any abnormalities found during these inspections, including insect activity and spotted, deformed, discolored, or dead leaves and twigs, should be noted and observed closely.

Mulching: Mulch, or decomposed organic material, placed over the root zone of a tree reduces environmental stress by providing a root environment that is cooler and contains more moisture than the surrounding soil. Mulch can also prevent mechanical damage by keeping machines such as lawn mowers and string trimmers away from the tree's base. Furthermore, mulch reduces competition from surrounding weeds and turf. To be most effective, mulch should be placed 2 to 4 inches deep and cover the entire root system, which may be as far as 2 or 3 times the diameter of the branch spread of the tree. If the area and activities happening around the tree do not permit the entire area to be mulched, it is recommended that as much of the area under the drip line of the tree is mulched as possible. When placing mulch, care should be taken not to cover the actual trunk of the tree. This mulch-free area, 1 to 2 inches wide at the base, is sufficient to avoid moist bark conditions and prevent trunk decay. An organic mulch layer 2 to 4 inches deep of loosely packed shredded leaves, pine straw, peat moss, or composted wood chips is adequate. Plastic should not be used as it interferes with the exchange of gases between soil and air, which inhibits root growth. Thicker mulch layers, 5 to 6 inches deep or greater, may also inhibit gas exchange.

Fertilization: Trees require certain nutrients (essential elements) to function and grow. Urban landscape trees may be growing in soils that do not contain sufficient available nutrients for satisfactory growth and development. In certain situations, it may be necessary to fertilize to improve plant vigor. Fertilizing a tree can improve growth; however, if fertilizer is not applied wisely, it may not benefit the tree at all and may even adversely affect the tree. Mature trees making satisfactory growth may not require fertilization. When considering supplemental fertilizer, it is important to consider nutrients deficiencies and how and when to amend the deficiencies. Soil conditions, especially pH and organic matter content, vary greatly, making the proper selection and use of fertilizer a somewhat complex process. To that end, it is recommended that the soil be tested for nutrient content. A soil testing laboratory and can give advice on application rates, timing, and the best blend of fertilizer for each tree and other landscape plants on site. Mature trees have expansive root systems that extend from 2 to 3 times the size of the leaf canopy. A major portion of actively growing roots is located outside the tree's drip line. Understanding the actual size and extent of a tree's root system before applying fertilizer is paramount to determine quantity, type and rate at which to best apply fertilizer. Always follow manufacturer recommendations for use and application.

Pruning: Pruning is often desirable or necessary to remove dead, diseased, or insect-infested branches and to improve tree structure, enhance vigor, or maintain safety. Because each cut has the potential to change the growth of (or cause damage to) a tree, no branch should be removed without reason. Removing foliage from a tree has two distinct effects on growth: (1) it reduces photosynthesis and, (2) it may reduce overall growth. Pruning should always be performed sparingly. Caution must be taken not to over-prune as a tree may not be able to gather and process enough sunlight to survive. Pruning mature trees may require special equipment, training, and experience. Arborists are equipped to provide a variety of services to assist in performing the job safely and reducing risk of personal injury and property damage *(See also Addendum A - ANSI A300 Part 1 Pruning Standards).*

Removal: Although tree removal is a last resort, there are circumstances when it is necessary. An arborist can help decide whether or not a tree should be removed. Professionally trained arborists have the skills and equipment to safely and efficiently remove trees. Removal is recommended when a tree: (1) is dead, dying, or considered irreparably hazardous; (2) is causing an obstruction or is crowding and causing harm to other trees and the situation is impossible to correct through pruning; (3) is to be replaced by a more suitable specimen, and; (4) should be removed to allow for construction. Pruning or removing trees, especially large trees, can be dangerous work. It should be performed only by those trained and equipped to work safely in trees.

TERMS AND CONDITIONS

The following terms and conditions apply to all oral and written reports and correspondence pertaining to consultations, inspections and activities of HMH.

1. The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. HMH assumes no liability for the failure of trees or parts of trees, either inspected or otherwise. HMH assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.
2. No tree described in this report was climbed, unless otherwise stated. HMH does not take responsibility for any defects, which could have only been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots was not performed unless otherwise stated. HMH does not take responsibility for any root defects, which could only have been discovered by such an inspection.
3. HMH shall not be required to provide further documentation, give testimony, be deposed, or attend court by reason of this appraisal or report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by HMH or in the schedule of fees or contract.
4. HMH guarantees no warrantee, either expressed or implied, as to the suitability of the information contained in the reports for any reason. It is the responsibility of the client to determine applicability to his/her case.
5. Any report and the values, observations and recommendations expressed therein represent the professional opinion of HMH, and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.
6. Any photographs, diagrams, graphs, sketches or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphic material or the work produced by other persons, is intended solely for the purpose of clarification and ease of reference. Inclusion of said information does not constitute a representation by HMH as to the sufficiency or accuracy of that information.
7. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

EXHIBIT A - TREE LOCATION MAP

LEGEND

- *### EXISTING ORDINANCE SIZE TREE (CIRCUMFERENCE 56" OR >.)
- •### EXISTING NON-ORDINANCE TREE
- ###* TREE TO CONSIDER FOR PRESERVATION

TABLE 1 - TREE QUANTITY SUMMARY

Tree Quantity by Species		
Species	**Quantity**	**% of Site**
Alnus species	2	2%
Citrus species	8	7%
Eriobotrya japonica	2	2%
Eucalyptus globulus	23	21%
Gleditsia tricanthos	4	4%
Juglans californica	3	3%
Koelreuterua bipinnata	2	2%
Ligustrum lucidum	3	3%
Magnolia grandiflora	1	1%
Olea europaea	1	1%
Platanus acerifolia	3	3%
Populus fremontii	1	1%
Punica granatum	4	4%
Quercus agrifolia	15	14%
Quercus chrysolepis	3	3%
Quercus lobata	3	3%
Schinus molle	24	22%
Sequoia sempervirens	4	4%
Washingtonia filifera	1	1%
Total Trees	**107**	**100%**

Tree Quantity by Size	
DBH	**Quantity**
<12"	29
12-17.7"	18
17.8" +	60
Total	**107**

TABLE 2 -TREE EVALUATION SUMMARY

Prepared By: Lisa Harris, ISA Certified Arborist #WE-9977A

DBH MEASUREMENT HEIGHT: 24"

Dates of Evaluation: 11/5/15 and 11/6/15

Suitability for Preservation is based on the following	
Good - Trees with good health and structural stability that have the potential for longevity at the site.	
Moderate - Trees in somewhat declining health and/or exhibits structural defects that cannot be abated with treatment. Trees will require more intense management and will have a shorter lifespan than those in the 'Good' category.	
Poor - Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to decline, regardless of treatment.	
Health Rating	
5	A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.
4	A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
3	A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.
2	A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
1	A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.
0	Tree is dead.

Abbreviations and Definitions		
CD	Codominant bran	Forked branches nearly the same size in diameter, arising from a common junction an lacking a normal branch union.
CDB	Dieback in Crown	Condition where branches in the tree crown die from the tips toward the center.
DB	Dieback	Progressive death of twigs and branches which generally starts at the tip
DBH	Diameter at Breast Height	Measurement of tree diameter in inches. Measurement height varies by City and is noted above.
FB	Fireblight	A disease in fruit trees resulting in burnt looking foliage.
H	Hazardous	A tree that in it's current condition, presents a hazard.
HD	Headed	Poor pruning practice of cutting back branches. Often practiced under utility lines to limit tree height.
IB	Included Bark	Structural defect where bark is included between the branch attachment so the wood can't join. Such defect can have a higher probability of failure.
LN	Leaning Tree	Tree leaning, see notes for severity.
ML	Multiple Leaders	More than one upright primary stem
MS	Multi-stem	A tree having 2 or more trunks, either originating at grade or branching after DBH height measurement.
ND	Nitrogen Deficien	Deficiency often resulting in lack of growth and yellow or pale green leaves.
PA	Planting Area	
S	Suckers	Shoot arising from the roots.
SC	Soil Compaction	Compaction of soil around tree root system which can damage vitality.
SD	Structural Defects	Naturally or secondary conditions including cavities, poor branch attachments, cracks, or decayed wood in any part of the tree that may contribute to structural failure.
SR	Surface Roots	Roots visible at finished grade.
SS	Sunscald	Injury to bark tissues on the trunk/branches caused by rapid temperature changes
WU	Weak Union	Weak union or fork in tree branching structure.
	Ordinance Tree	A tree defined in this section herein below and whose removal or topping is covered by and subject to the provisions of chapter 13. Ordinance tree means any live or dead woody perennial plant characterized by having a main stem or trunk which measures 56" (~17.8" DBH) or more in circumference at a height of 24" above natural grade slope. A multi-trunk tree shall be considered a single tree and measurement of that tree shall include the sum of the circumference of the trunks of that tree at a height of 24" above natural grade slope. "Tree" shall include the plural of that term" (13.32.020).

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
801	Quercus agrifolia	Coast Live Oak	26.2+15.6	41.8	131	YES	near the Beauty Spot property line, under power lines along San Felipe	YES	4	Good	S, IB at multiple locations, minor leaf gall	monitor health and provide good horticultural care. Preserve.
802	Schinus molle	Peruvian Pepper		42.3	133	YES	N of 3600 San Felipe	NO	2	Poor	Low branching, several broken limbs, limb drop, forks at 3' above grade	
803	Eucalyptus globulus	Blue Gum Eucalyptus		56.2	176	YES	N of 3600 San Felipe	NO	3	Poor	DB in upper canopy	
804	Eucalyptus globulus	Blue Gum Eucalyptus	21.2+58.5	79.7	250	YES	N of 3600 San Felipe	NO	1	Poor	Galls, DB in upper canopy, severe decay at base (extents unknown, but tree failure is likely)	Remove
805	Quercus agrifolia	Coast Live Oak		33.2	104	YES	N of 3600 San Felipe	YES	3	Good	Large IB seam from grade to tree fork at roughly 3', wide spreading canopy which branches to grade. Canker on trunk, limb underside DB, witch's broom	Consider preservation, monitor IB, as these unions tend to be weak and prone to breakage. Provide additional horticultural care.
806	Schinus molle	Peruvian Pepper		19.7	62	YES	Near machinery structure	NO	2	Poor	Irregular canopy, S, several broken limbs, decaying limbs	
807	Ligustrum lucidum	Glossy Privet		7.6	24		Near machinery structure	NO	1	Poor	Growing into the structure, volunteer	
808	Schinus molle	Peruvian Pepper		29.0	91	YES	Near machinery structure	NO	1	Poor	LN, severe decay	
809	Quercus chrysolepis	Canyon Live Oak	1+4	5.0	16		Near machinery structure	NO	3	Poor	Small shrubby volunteer	

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
810	Schinus molle	Peruvian Pepper		46.3	145	YES	Along PL to 3600 San Felipe	NO	3	Poor	Large galls on trunk, sooty bark, decaying cavity on upper limb	
811	Quercus lobata	Valley Oak		29.4	92	YES	Along PL to 3600 San Felipe	YES	3	Good	Crown whitefly pupae on leaves, fusarium rust	Consider preservation,
812	Schinus molle	Peruvian Pepper		50.0	157	YES	Along PL to 3600 San Felipe, near street	NO	3	Poor	S, sooty trunk and limbs, extensive SR	
813	Quercus agrifolia	Coast Live Oak		25.9	81	YES	Along San Felipe	YES	5	Good	Low branching	Preserve
814	Ligustrum lucidum	Glossy Privet		5.8	18		Along San Felipe	NO	1	Poor	volunteer	
815	Schinus molle	Peruvian Pepper	40+22	62.0	195	YES	Along San Felipe	NO	3	Poor	LN, low branching, DB	
816	Citrus species	Citrus		10.0	31		Along San Felipe	NO	2	Poor		Remove
817	Citrus species	Citrus		9.0	28		Along San Felipe	NO	2	Poor		Remove
818	Citrus species	Citrus	1+2+4+3	10.0	31		Front yard of residence	NO	1	Poor	hollow	Remove
819	Citrus species	Citrus		11.0	35		Front yard of residence	NO	2	Poor		Remove
820	Citrus species	Citrus	8.4+4+4+10	26.4	83	YES	Front yard of residence	NO	1	Poor	low branching	Remove
821	Citrus species	Citrus		11.1	35		Front yard of residence	NO	1	Poor	hollow	Remove
822	Citrus species	Citrus	7.1+7+6.8	20.9	66	YES	Front yard of residence	NO	2	Poor		Remove
823	Citrus species	Citrus	5+3+7	15.0	47		Front yard of residence	NO	1	Poor	irregular	Remove
824	Gleditsia tricanthos	Honey Locust		18.7	59	YES	Front yard of residence	NO	1	Poor	Severe decline, next tree 825	Remove

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
825	Ligustrum lucidum	Glossy Privet	7.6+5.4	13.9	44		Front yard of residence	NO	1	Poor	volunteer next to tree 824	Remove
826	Punica granatum	Pomegranate		7.5	24		Along driveway to house	NO	1	Poor		Remove
827	Punica granatum	Pomegranate		8.0	25		Along driveway to house	NO	0	Poor	dead	Remove
828	Platanus acerifolia	London Plane		12.2	38		Along driveway to house	NO	2	Poor	lopsided canopy, near overhead wires	
829	Platanus acerifolia	London Plane		12.5	39		Along driveway to house	NO	4	Moderate		
830	Platanus acerifolia	London Plane		13.0	41		Along San Felipe	NO	4	Moderate		
831	Schinus molle	Peruvian Pepper		32.3	101	YES	Along San Felipe	NO	3	Moderate	low branching, DB	
832	Schinus molle	Peruvian Pepper	8.3+16	24.3	76	YES	Along driveway to house	NO	2	Poor	twisted trunk, irregular habit	
833	Schinus molle	Peruvian Pepper		18.4	58	YES	Along driveway to house	NO	3	Moderate	leaning away from tree 833	
834	Quercus agrifolia	Coast Live Oak		14.7	46		Along driveway to house	YES	4	Moderate	leaning away from tree 834, single trunk tree with a kink	
835	Schinus molle	Peruvian Pepper		22.3	70	YES	Along driveway to house	NO	2	Poor	poor habit, DB	
836	Koelreuterua bipinnata	Goldenrain Tree	2"x3+5+3+5	19.0	60	YES	Along driveway to house	NO	1	Poor	severe decay	Remove
837	Alnus species	Alder	5"x4	20.0	63	YES	Along driveway to house	NO	2	Poor	shrub like clump	
838	Punica granatum	Pomegranate	1"x8+2+2	12.0	38		Along driveway to house	NO	2	Poor		
839	Punica granatum	Pomegranate	3.4+2+1+3	9.4	30		Along driveway to house	NO	0	Poor		Remove

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
840	Sequoia sempervirens	Coast Redwood		0.0	0		Along driveway to house	NO	0	Poor		Remove
841	Schinus molle	Peruvian Pepper		30.0	94	YES	In rear yard of trailer	NO	3	Moderate	IB, limbs irregularly pruned	
842	Koelreuterua bipinnata	Goldenrain Tree	5+4+3+4+1+3+3	23.0	72	YES	Along driveway to house	NO	0	Poor		Remove
843	Eriobotrya japonica	Loquat		7.3	23		Front yard of residence	NO	2	Poor	exposed wound	
844	Eriobotrya japonica	Loquat	4.3+7.4	11.9	37		Front yard of residence	NO	2	Poor	exposed wound	
845	Sequoia sempervirens	Coast Redwood		9.0	28		Front yard of residence	NO	0	Poor	12' tall dead stump	Remove
846	Alnus species	Alder	10+8	18.0	57	YES	Front yard of residence	NO	2	Poor		
847	Quercus agrifolia	Coast Live Oak		19.0	60	YES	N of residence	YES	4	Good	Several cankers at base, starting at 4' above grade, upright tree	Preserve
848	Schinus molle	Peruvian Pepper		15.4	48		NE of residence	NO	2	Poor	LN, S, DB	Remove
849	Schinus molle	Peruvian Pepper	13.7+12.5	26.2	82	YES	NE of residence	NO	1	Poor	Low branching, hollow center, decaying, risk of failure	Remove
850	Schinus molle	Peruvian Pepper		54.0	170	YES	NE of residence	NO	2	Poor	galls, wasp nest inside a decayed limb cavity	
851	Schinus molle	Peruvian Pepper	8+4+16+15+18	61.0	192	YES	NE of residence	NO	2	Poor	hollow base	
852	Gleditsia tricanthos	Honey Locust		11.1	35		NE of residence	NO	2	Poor	LN, thin canopy	
853	Gleditsia tricanthos	Honey Locust		14.8	46		E of residence	NO	2	Poor	LN, thin canopy	
854	Quercus agrifolia	Coast Live Oak		16.4	51		E of residence	YES	3	Moderate	evidence of previous borer attack, rounded crown	

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
855	Quercus agrifolia	Coast Live Oak		28.5	89	YES	E of residence	YES	3	Good	curving trunk, flat sided (possible root issues)	Consider preservation with tree 856
856	Quercus lobata	Valley Oak		21.2	67	YES	E of residence	YES	3	Good	LN toward tree 855, fusarium rust, leaf gall	Consider preservation with tree 855, create proper drainage away from the tree
857	Schinus molle	Peruvian Pepper		28.9	91	YES	E of residence	NO	2	Poor	LN, galls, limb drop	
858	Magnolia grandiflora	Southern Magnolia		18.9	59	YES	E of residence	NO	1	Moderate	Large decaying cavity, large canker	Remove
859	Sequoia sempervirens	Coast Redwood		20.0	63	YES	E of residence	NO	2	Poor	S, thin canopy	
860	Quercus chrysolepis	Canyon Live Oak		8.0	25		E of residence	NO	2	Poor	Shrubby volunteer, decay at base	Remove
861	Juglans californica	California Walnut	3+7+4	14.0	44		Along E PL	YES	2	Poor	young volunteer, DB	
862	Juglans californica	California Walnut		10.0	31		Along E PL	YES	2	Poor	young volunteer, DB	
863	Quercus agrifolia	Coast Live Oak		9.0	28		Along E PL	YES	2	Moderate	Shrubby volunteer	
864	Olea europaea	European Olive		10.0	31		Along E PL	NO	3	Moderate	fruiting	
865	Juglans californica	California Walnut		6.1	19		Along E PL	YES	2	Poor	Shrubby volunteer	
866	Quercus agrifolia	Coast Live Oak	8+7	15.0	47		Along E PL	YES	2	Moderate	Shrubby volunteer	
867	Populus fremontii	California Cottonwood		8.0	25		Along E PL	YES	2	Moderate	Shrubby volunteer	
868	Quercus agrifolia	Coast Live Oak		7.0	22		Along E PL	YES	2	Poor	Shrubby volunteer	

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
869	Schinus molle	Peruvian Pepper		8.0	25		Along E PL	NO	2	Poor	Shrubby volunteer	
870	Schinus molle	Peruvian Pepper		27.0	85	YES	Mobile home backyard	NO	3	Moderate	LN, uneven habit, DB	
871	Schinus molle	Peruvian Pepper		29.7	93	YES	Mobile home backyard	NO	3	Moderate	LN, uneven habit, DB	
872	Eucalyptus globulus	Blue Gum Eucalyptus		74.5	234	YES	Mobile home backyard	NO	4	Moderate	CD branching	Not an ideal species in pedestrian or built environment, hence the moderate preservation rating for all Eucalyptus
873	Quercus agrifolia	Coast Live Oak		13.0	41		Mobile home backyard	YES	3	Poor	Shrubby low branching, canker	
874	Gleditsia tricanthos	Honey Locust		14.0	44		Mobile home backyard	NO	2	Poor		
875	Eucalyptus globulus	Blue Gum Eucalyptus		48.0	151	YES	Mobile home backyard	NO	4	Moderate		Not an ideal species in pedestrian or built environment
876	Eucalyptus globulus	Blue Gum Eucalyptus		56.0	176	YES	Mobile home backyard	NO	4	Moderate		Not an ideal species in pedestrian or built environment
877	Sequoia sempervirens	Coast Redwood		17.0	53		N PL	NO	0	Poor	15' tall stump	Remove
878	Eucalyptus globulus	Blue Gum Eucalyptus		38.0	119	YES	front yard of mobile home	NO	3	Moderate	splits at 4'	
879	Eucalyptus globulus	Blue Gum Eucalyptus		68.0	214	YES	dirt roundabout	NO	4	Moderate		
880	Eucalyptus globulus	Blue Gum Eucalyptus	16+36	52.0	163	YES	side yard of mobile home	NO	3	Poor	poor habit, DB	
881	Schinus molle	Peruvian Pepper	10.4+2+6	18.4	58	YES	side yard of mobile home	NO	3	Poor	low branching	
882	Eucalyptus globulus	Blue Gum Eucalyptus		45.3	142	YES	side yard of mobile home	NO	2	Poor	strikes on trunk	

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
883	Eucalyptus globulus	Blue Gum Eucalyptus		36.3	114	YES	side yard of mobile home	NO	3	Moderate		
884	Eucalyptus globulus	Blue Gum Eucalyptus		29.0	91	YES	side yard of mobile home	NO	3	Moderate	LN	
885	Eucalyptus globulus	Blue Gum Eucalyptus	32+20+21	73.0	229	YES	side yard of mobile home	NO	3	Moderate	splits at grade	
886	Eucalyptus globulus	Blue Gum Eucalyptus		40.0	126	YES	side yard of mobile home	NO	3	Poor	vase shaped habit	
887	Eucalyptus globulus	Blue Gum Eucalyptus		40.0	126	YES	side yard of mobile home	NO	3	Poor	vase shaped habit	
888	Schinus molle	Peruvian Pepper		19.0	60	YES	N PL	NO	2	Poor	poor habit	
889	Quercus lobata	Valley Oak		26.0	82	YES	side yard of mobile home	YES	0	Poor	dead	Remove
890	Quercus agrifolia	Coast Live Oak		4.2	13		N PL	YES	2	Poor	shrubby volunteer	
891	Quercus agrifolia	Coast Live Oak		9.2	29		N PL	YES	3	Moderate	next to tree 892	
892	Quercus agrifolia	Coast Live Oak	10+3	13.0	41		N PL	YES	3	Moderate	next to tree 891	
893	Schinus molle	Peruvian Pepper		36.0	113	YES	N PL	NO	3	Moderate		
894	Quercus chrysolepis	Canyon Live Oak	9.1+6	15.1	47		N PL	NO	3	Moderate	shrubby volunteer	
895	Quercus agrifolia	Coast Live Oak		7.0	22		Near fence at N driveway	YES	3	Poor	shrubby volunteer	
896	Eucalyptus globulus	Blue Gum Eucalyptus		12.5	39		Along N driveway	NO	2	Poor	poor habit	
897	Eucalyptus globulus	Blue Gum Eucalyptus		39.0	122	YES	Along N driveway	NO	3	Moderate	vase shaped habit	

TAG #	BOTANICAL NAME	COMMON NAME	MS Measurement	TOTAL DBH	CIRCUMF-ERENCE	ORDINANCE TREE	LOCATION	NATIVE	HEALTH	PRESERVAT-ION SUITABILITY	NOTES	RECOMMENDATIONS
898	Eucalyptus globulus	Blue Gum Eucalyptus	27+6	33.0	104	YES	Along N driveway	NO	4	Moderate		
899	Eucalyptus globulus	Blue Gum Eucalyptus		53.0	166	YES	Along N driveway	NO	4	Moderate		
201	Eucalyptus globulus	Blue Gum Eucalyptus		54.0	170	YES	Along N driveway	NO	4	Moderate		
202	Eucalyptus globulus	Blue Gum Eucalyptus		60.0	188	YES	Along N driveway	NO	4	Moderate		
203	Eucalyptus globulus	Blue Gum Eucalyptus		42.0	132	YES	Along N driveway	NO	4	Moderate		
207	Eucalyptus globulus	Blue Gum Eucalyptus		48.0	151	YES	Along N driveway	NO	4	Moderate		
211	Eucalyptus globulus	Blue Gum Eucalyptus		47.0	148	YES	Along N driveway	NO	4	Moderate		
213	Schinus molle	Peruvian Pepper		5.2	16		Mobile home front yard	NO	3	Poor		
218	Schinus molle	Peruvian Pepper	2+6.5	8.5	27		Mobile home front yard	NO	2	Poor	LN	
220	Washingtonia filifera	California Fan Palm	12"x4	48.0	151	YES	Mobile home front yard	NO	4	Poor	cluster of short volunteers	


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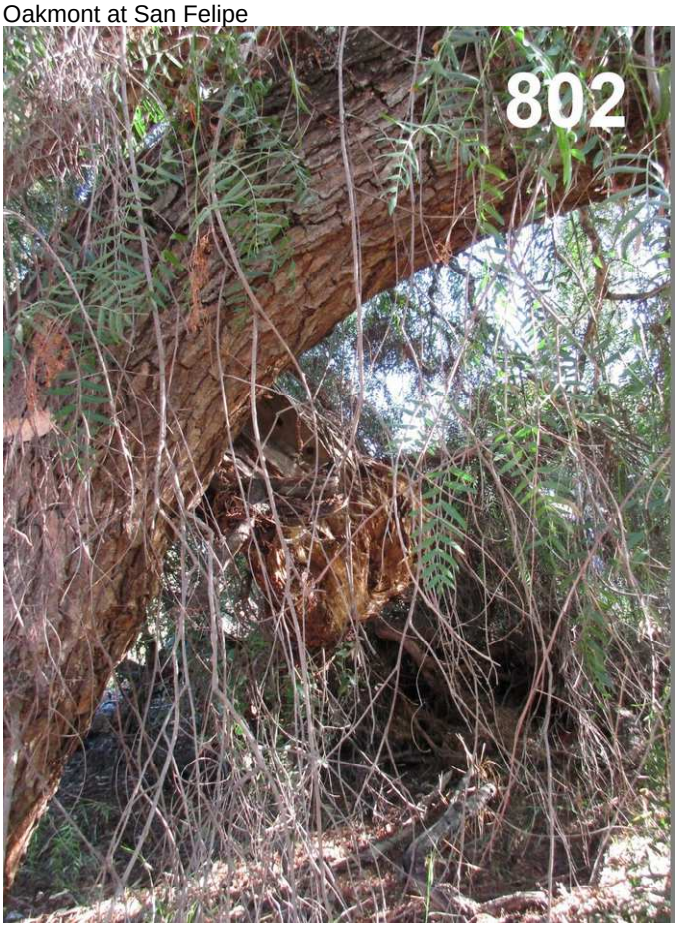
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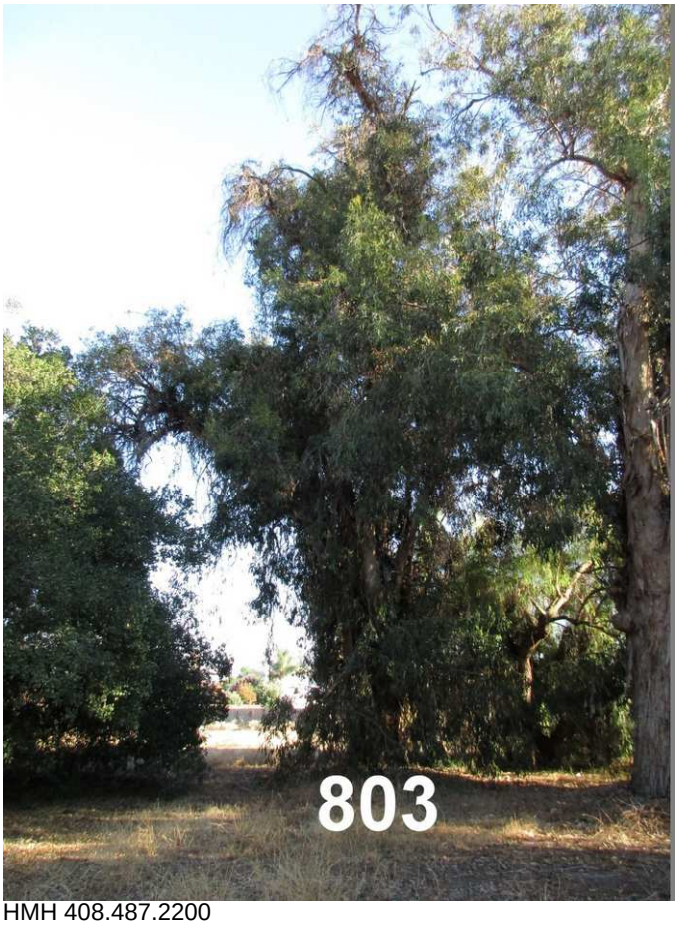
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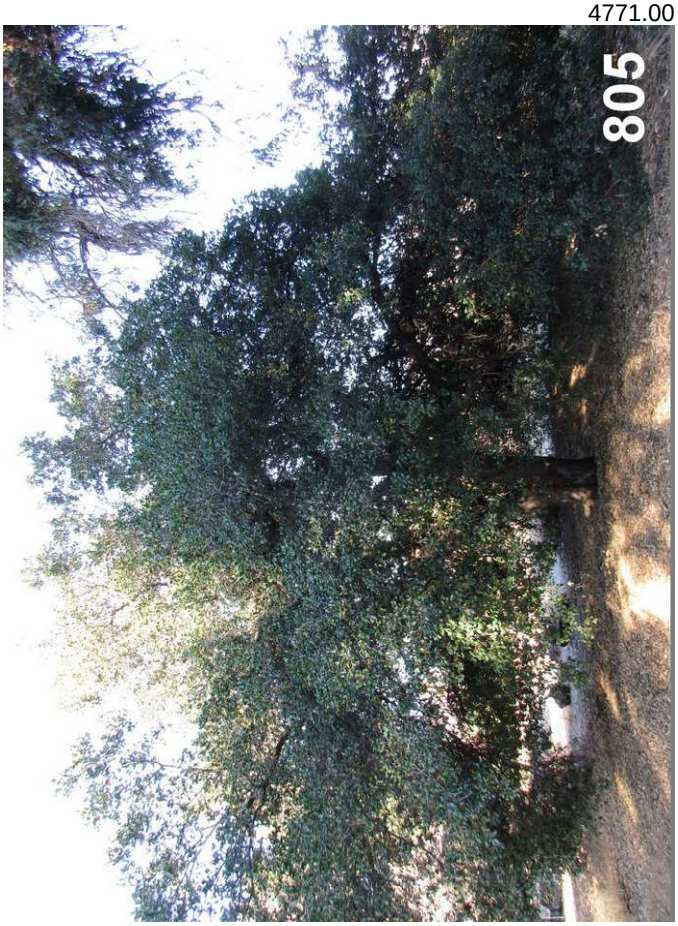
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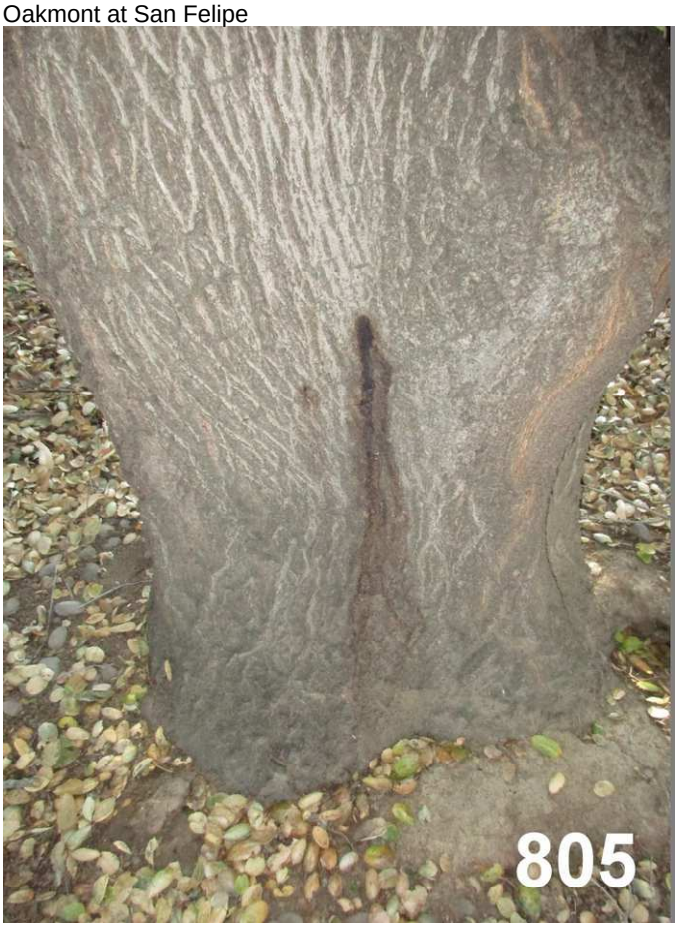
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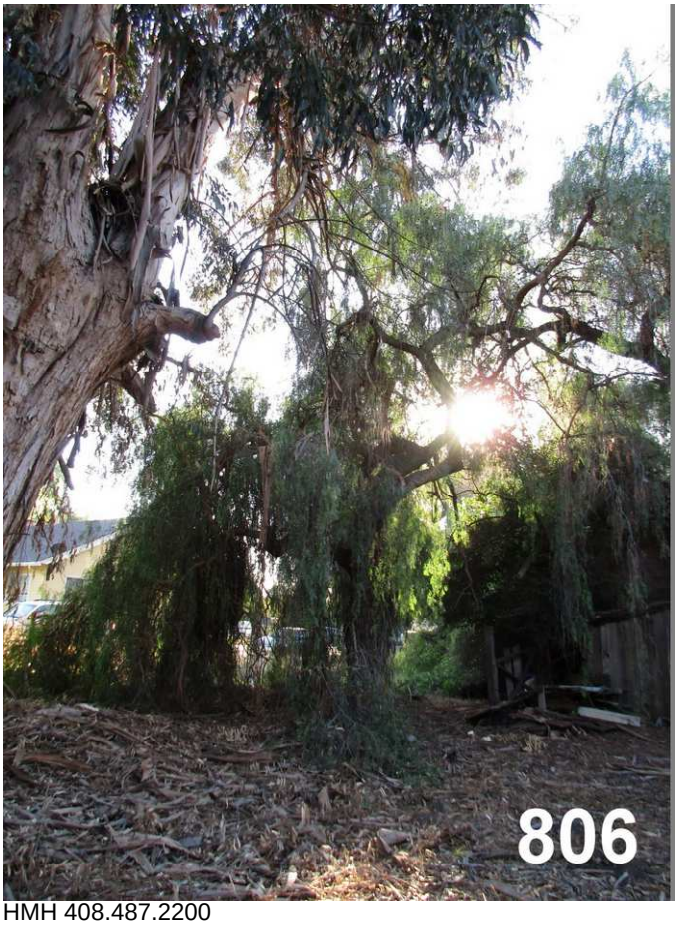
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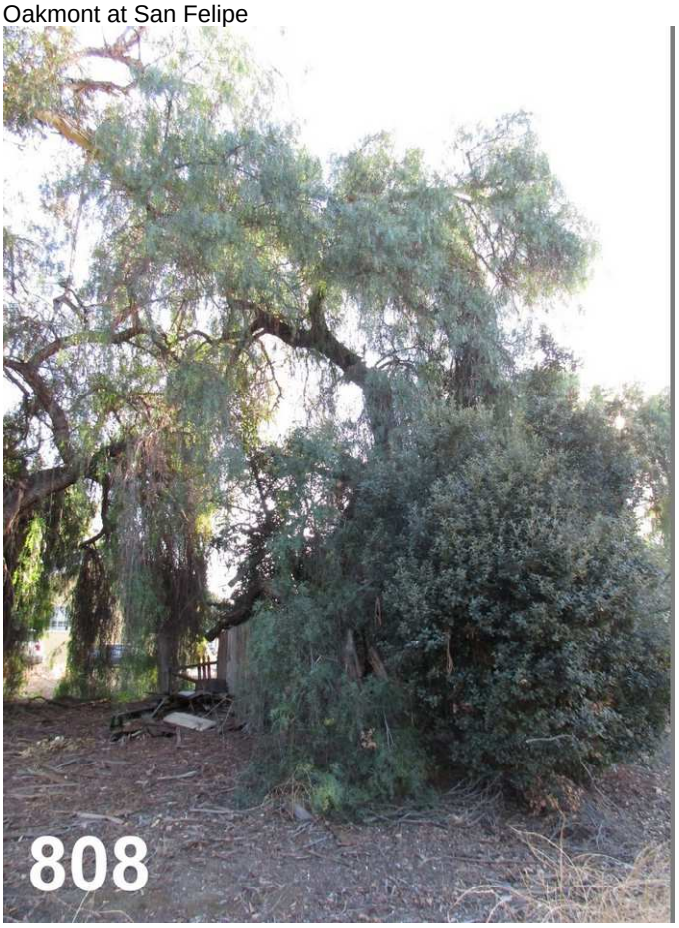
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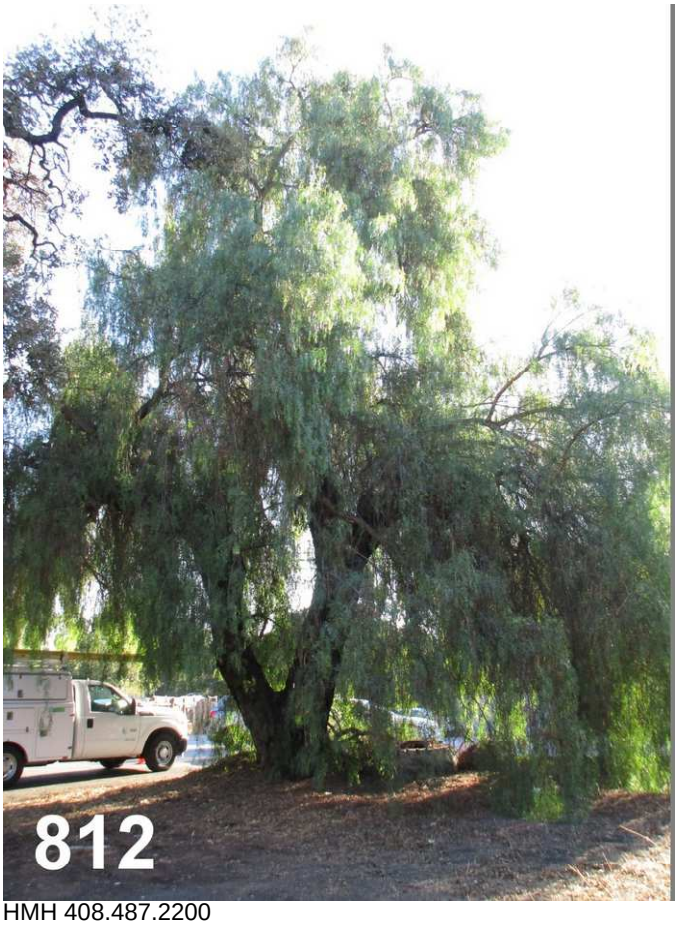
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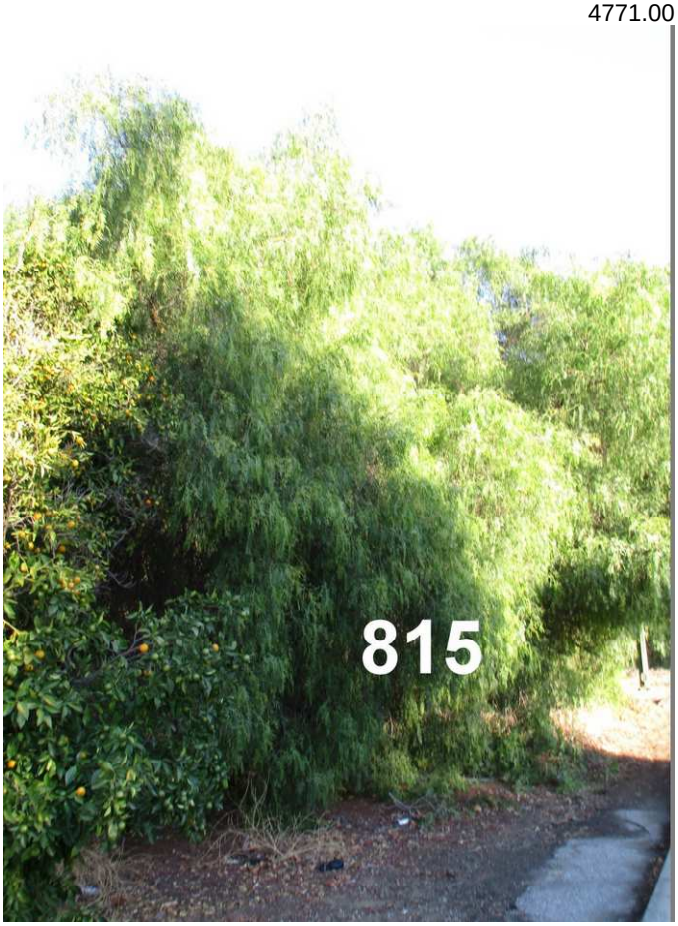
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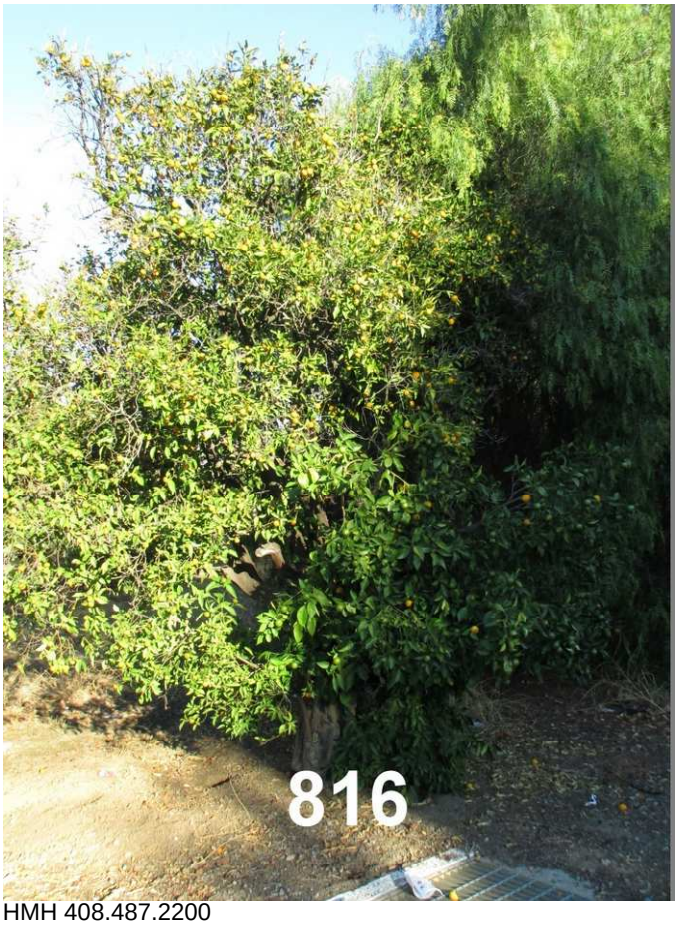
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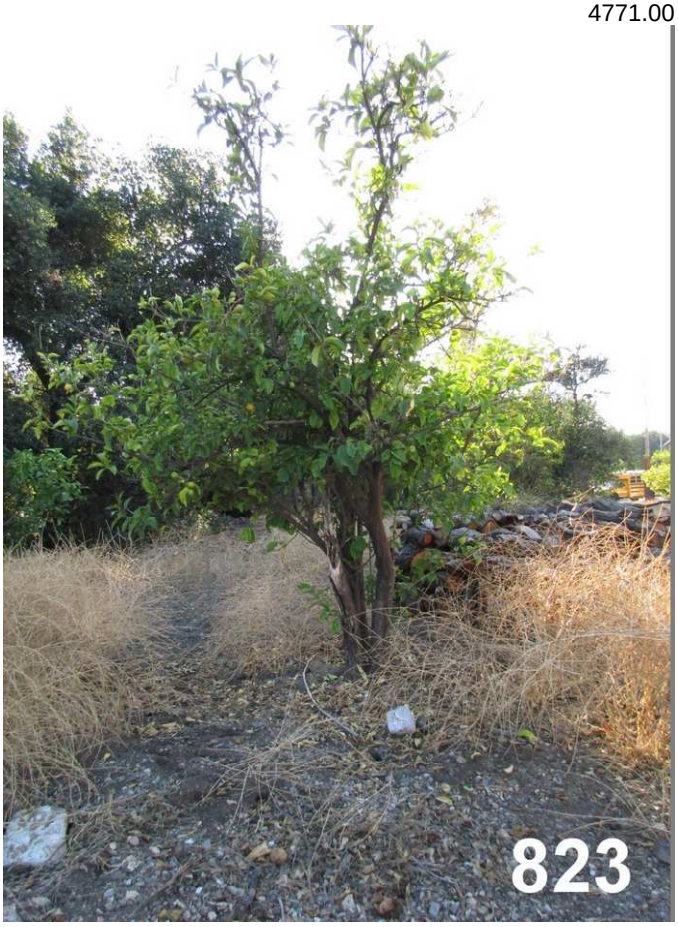
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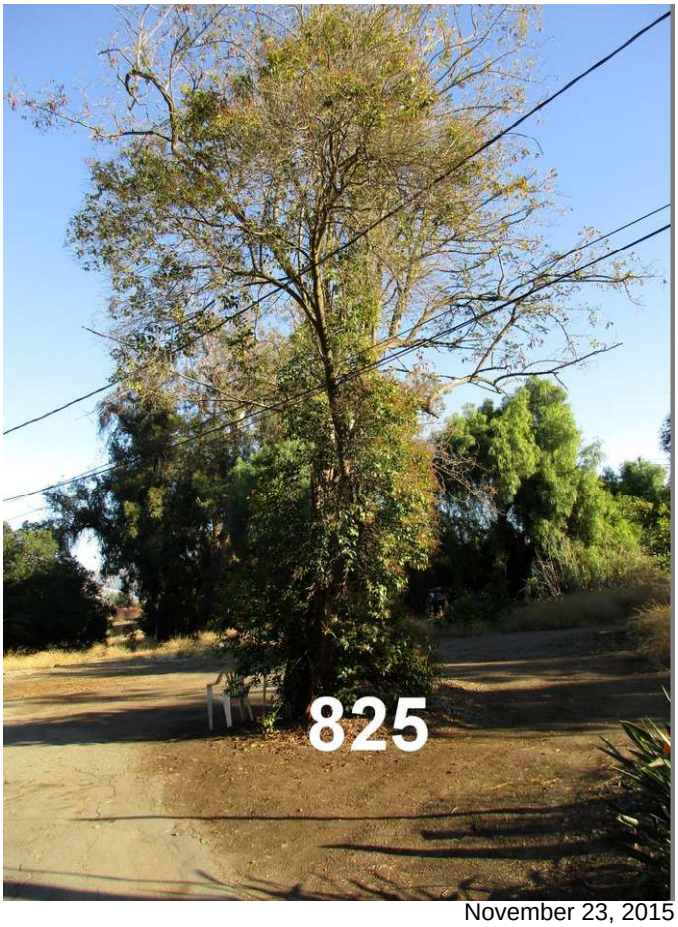
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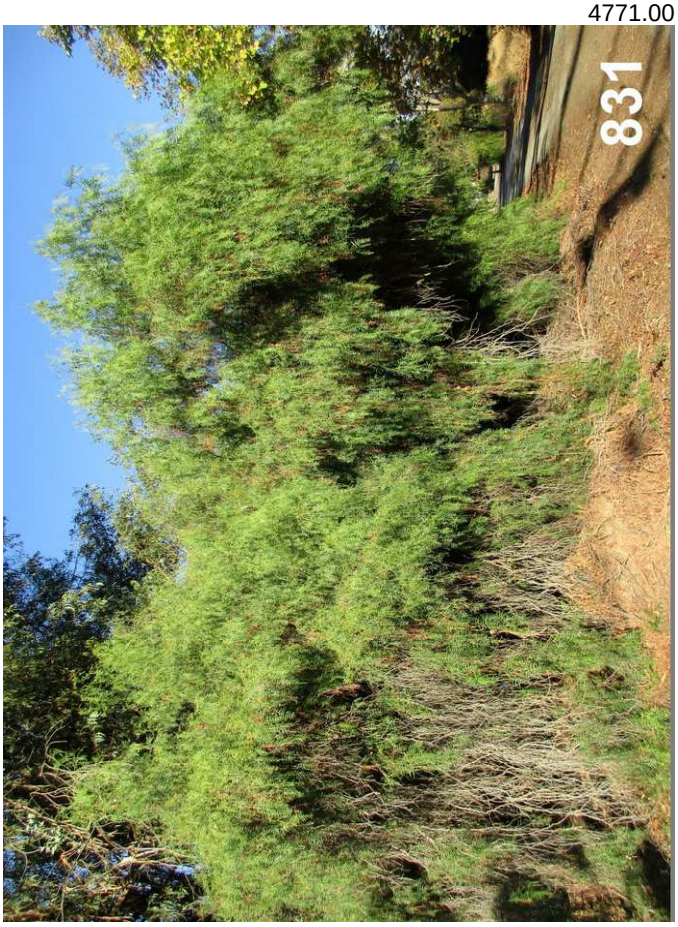
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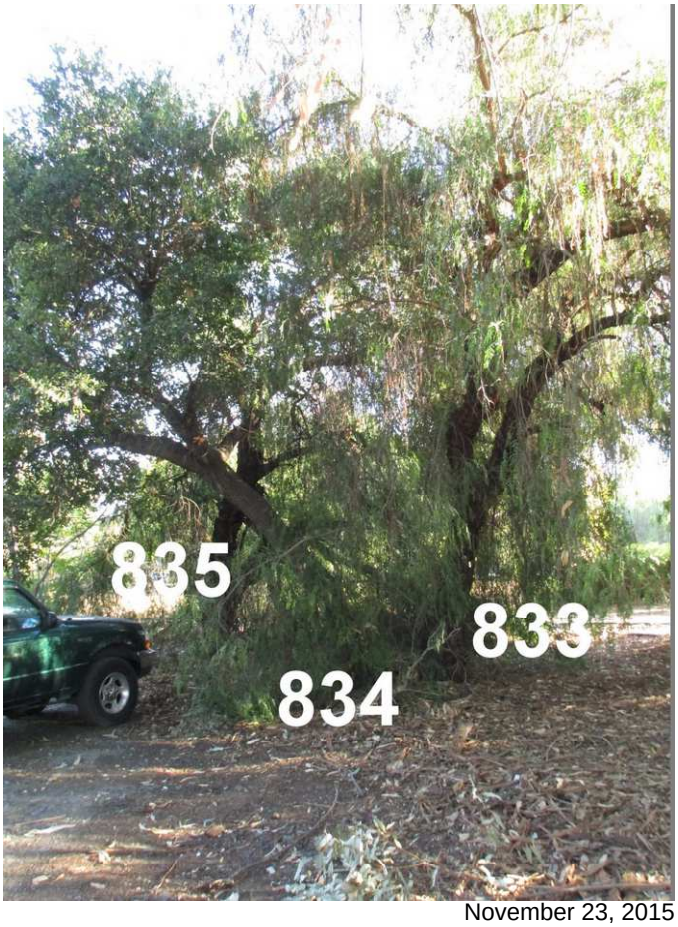
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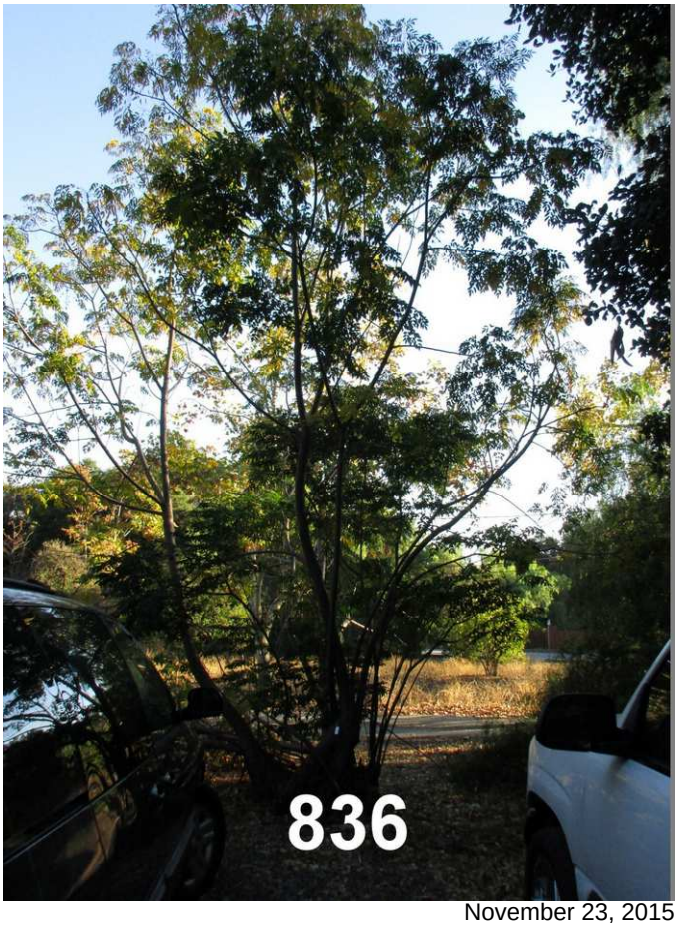
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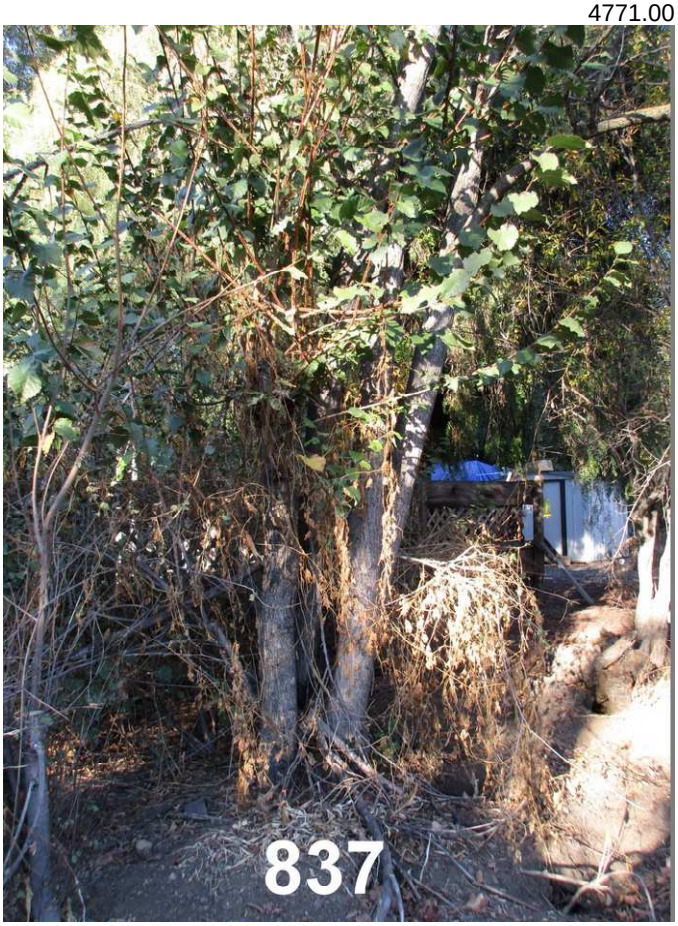
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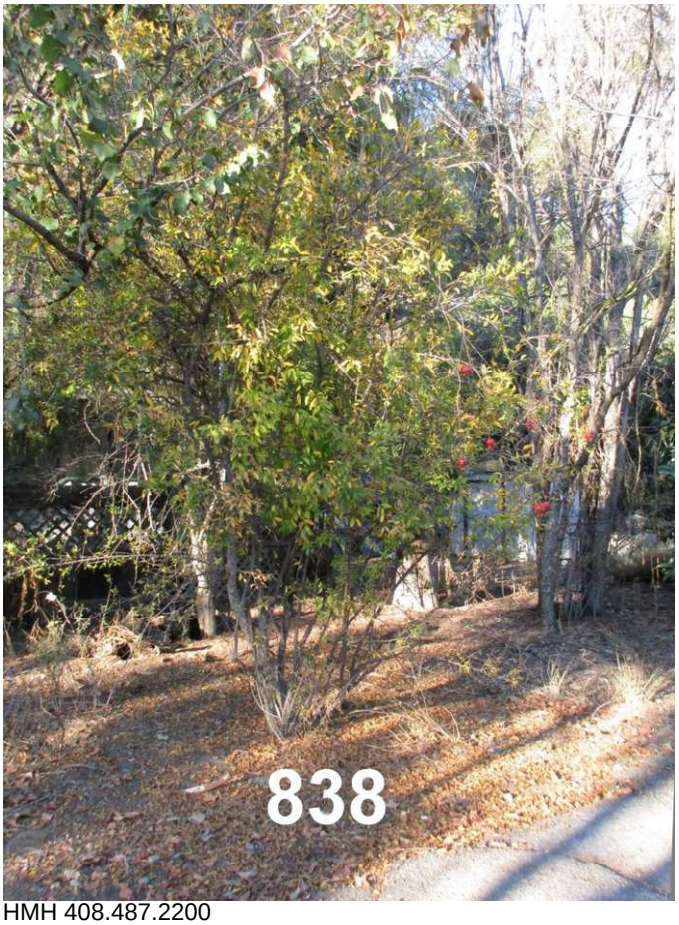
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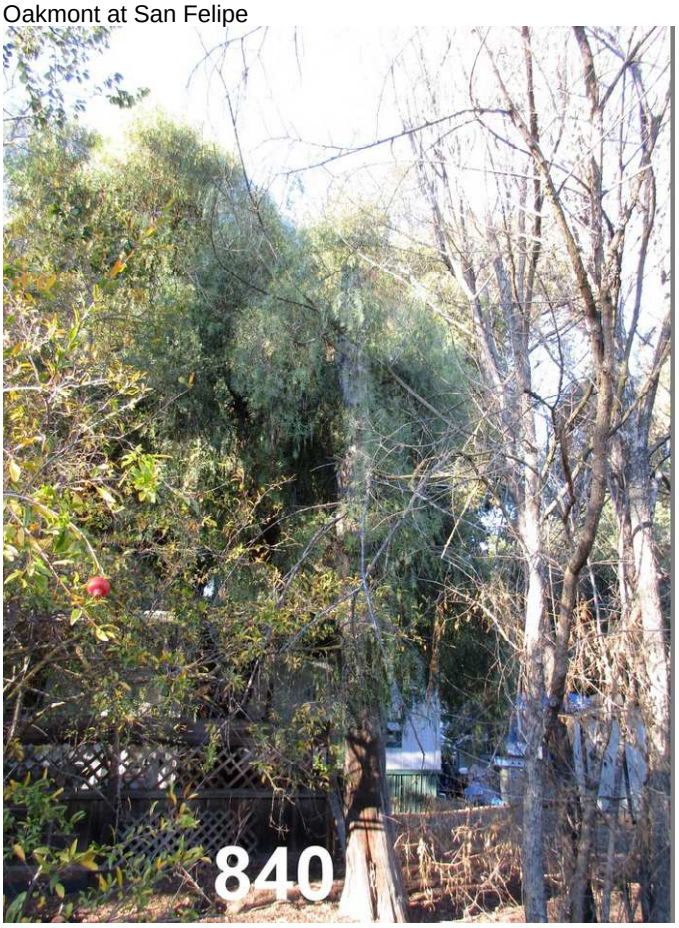
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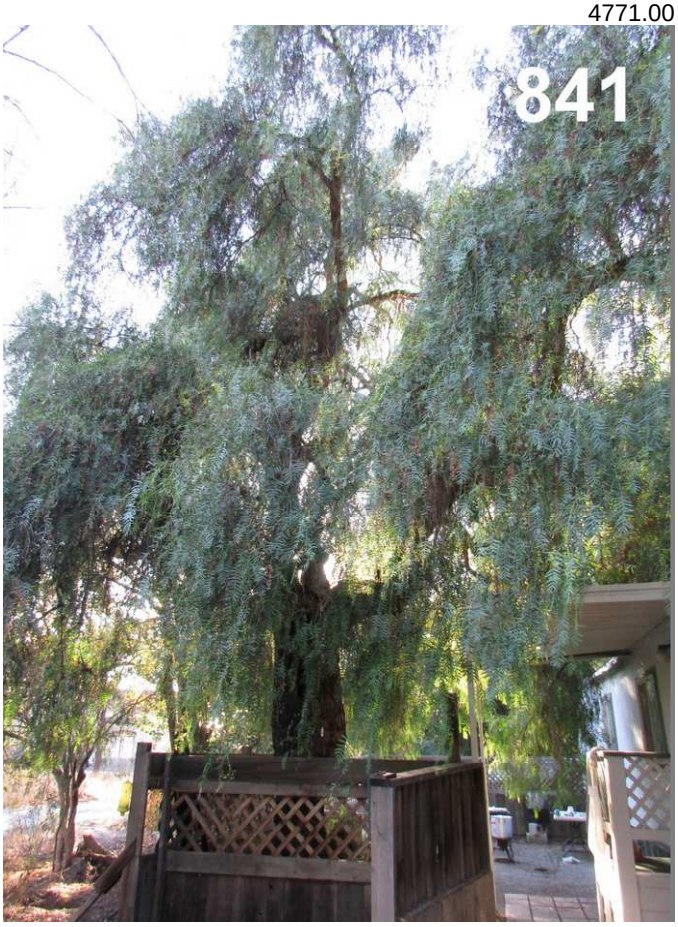
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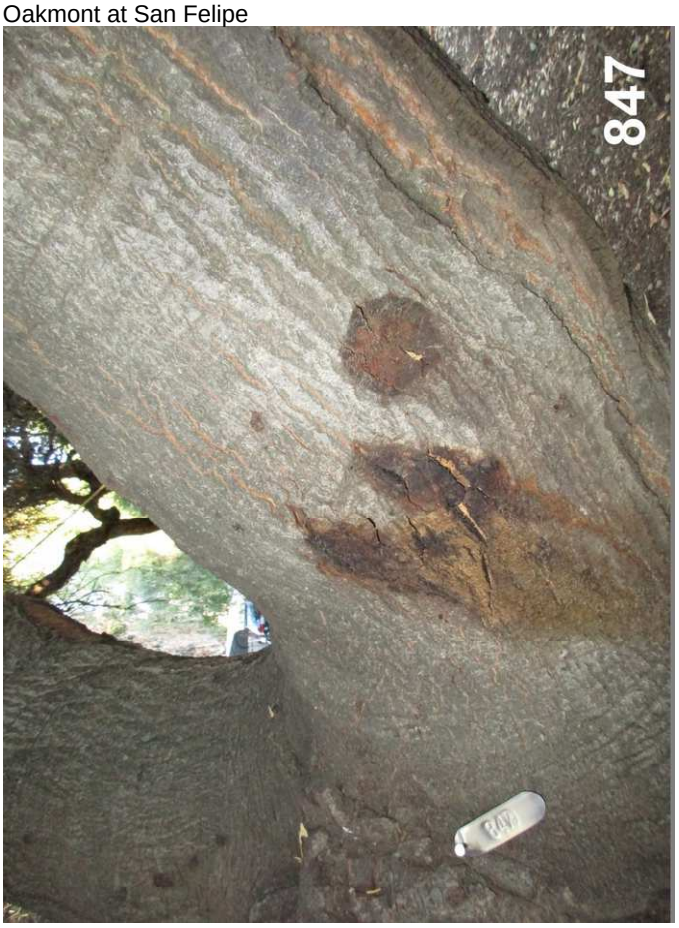
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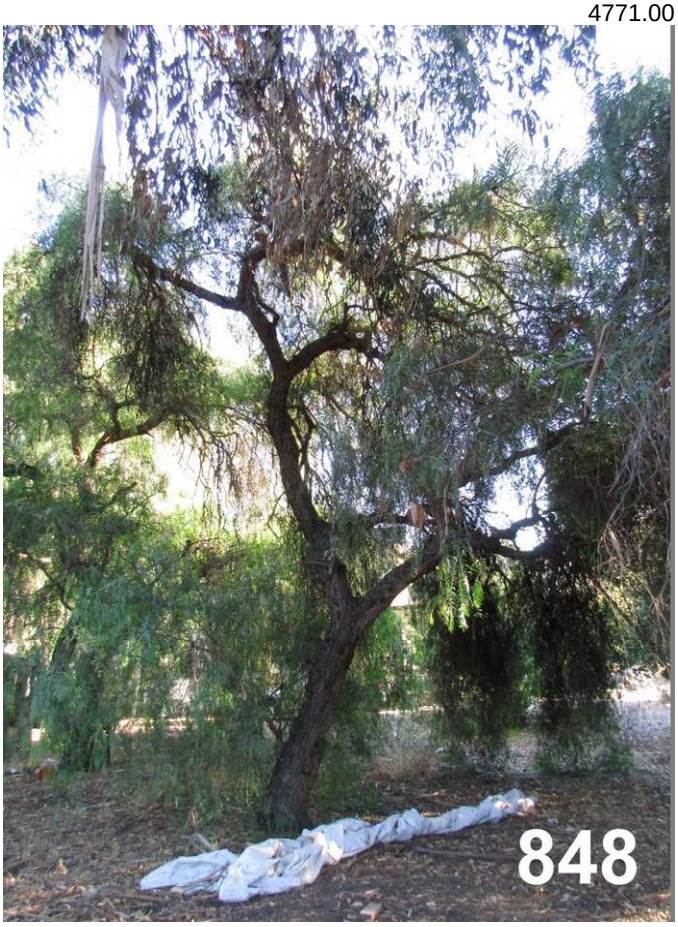
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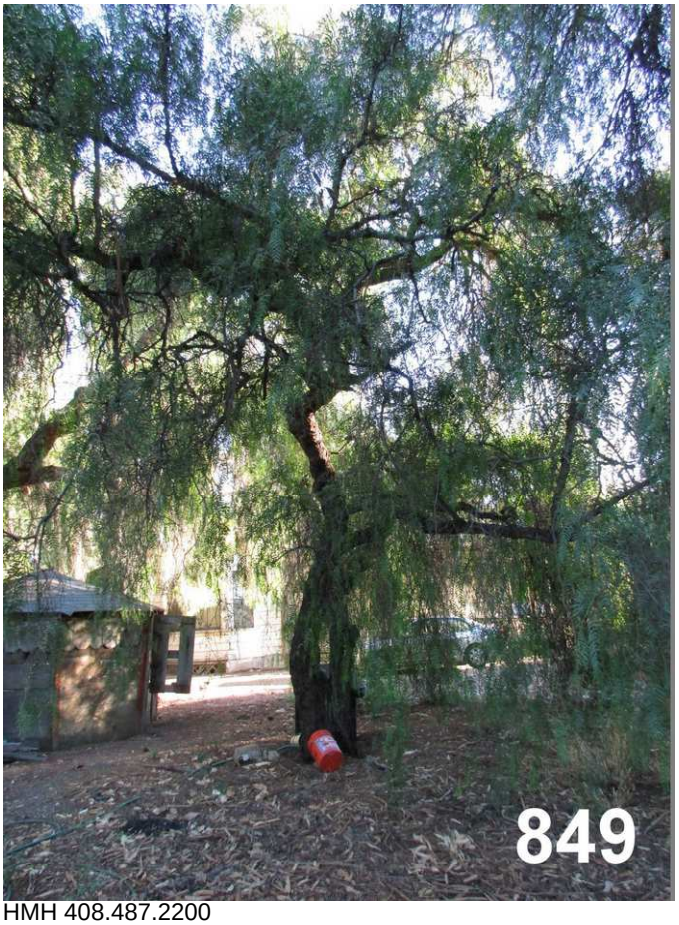
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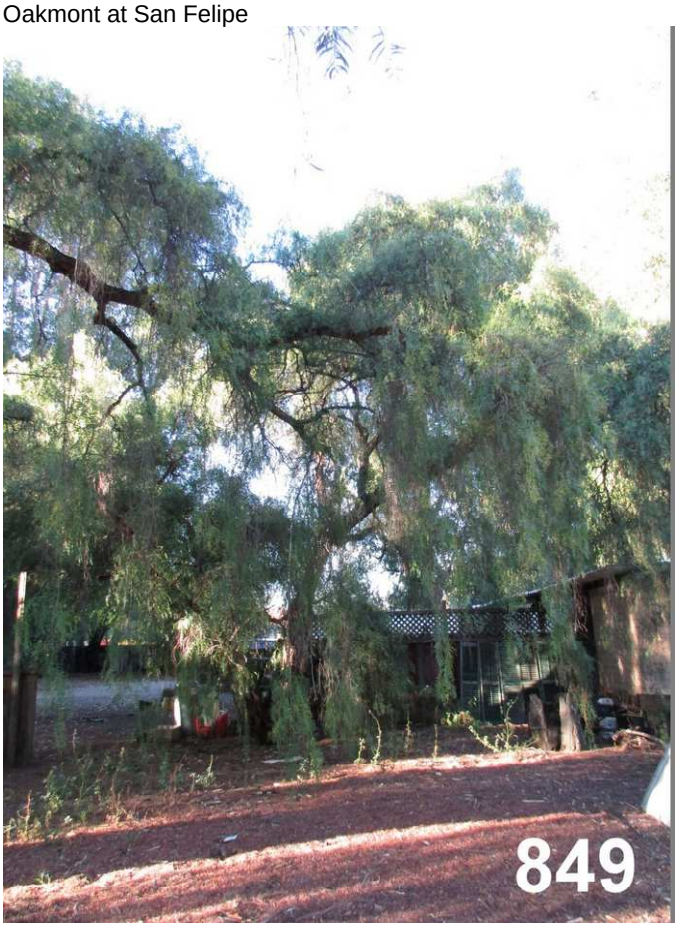
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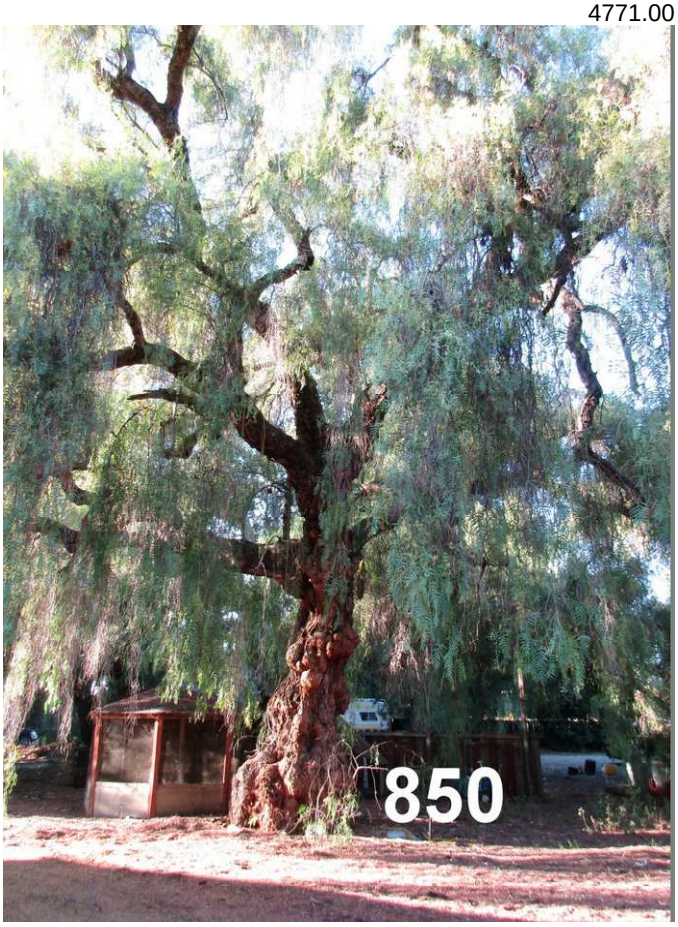
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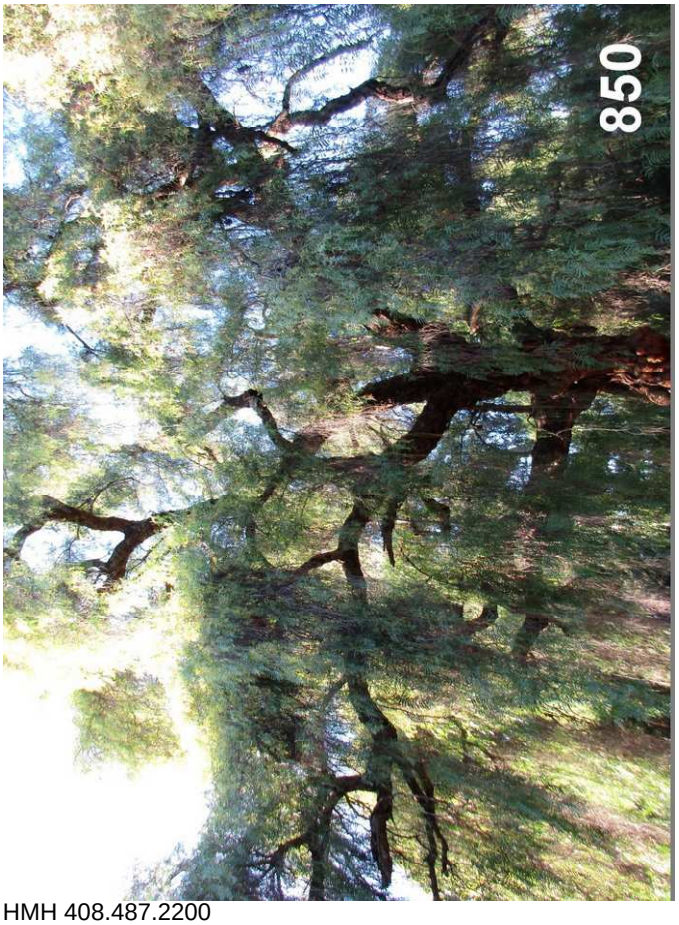
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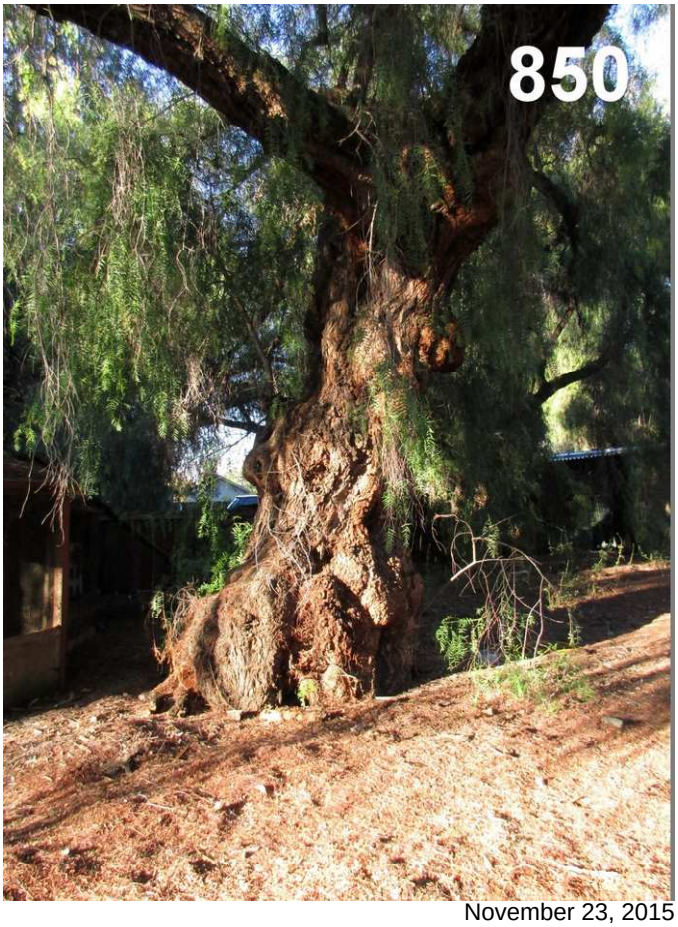
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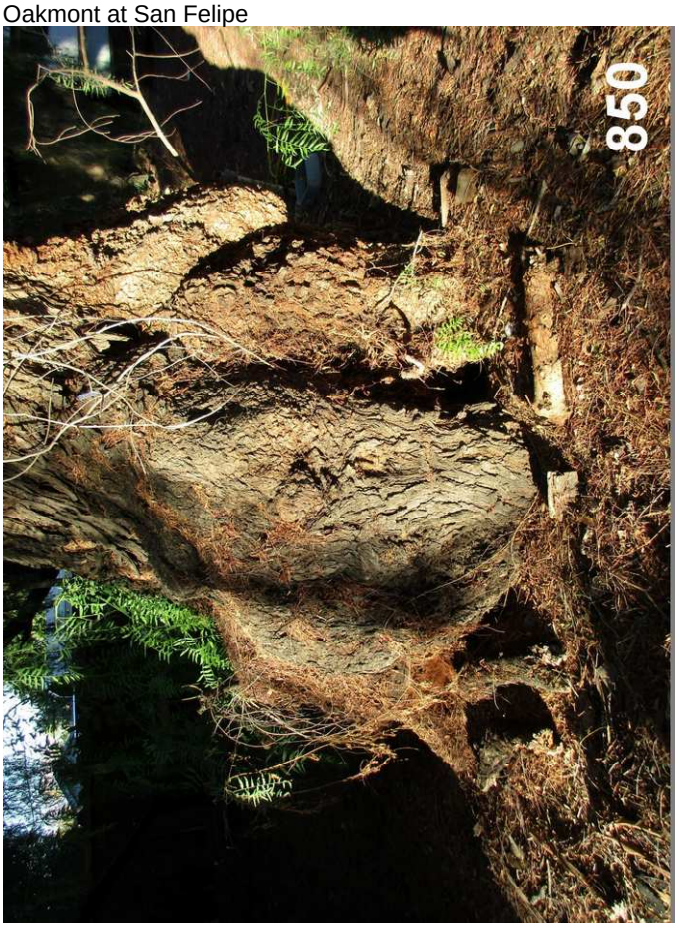
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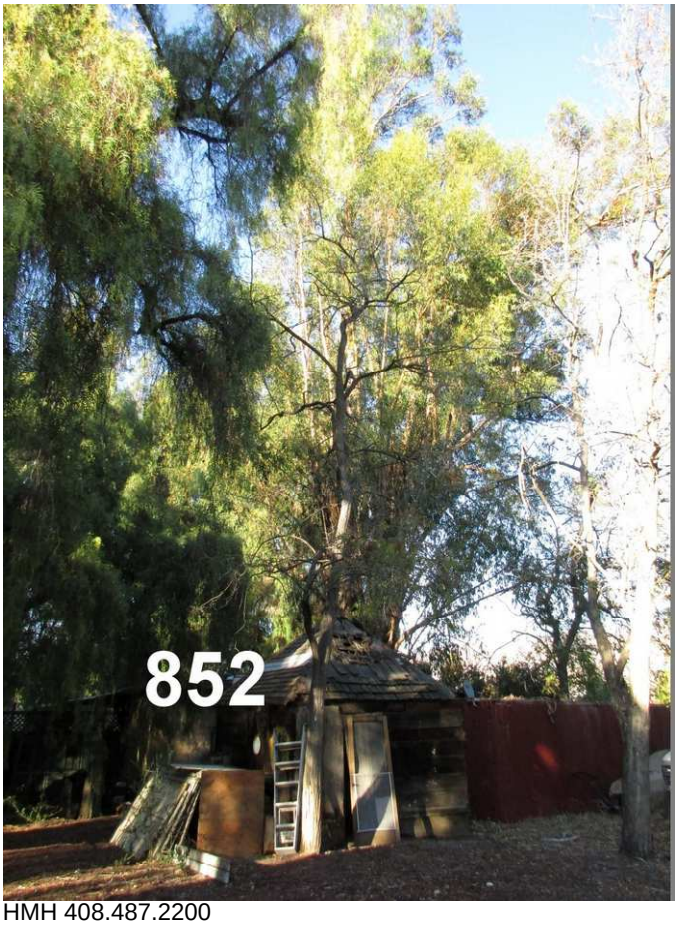
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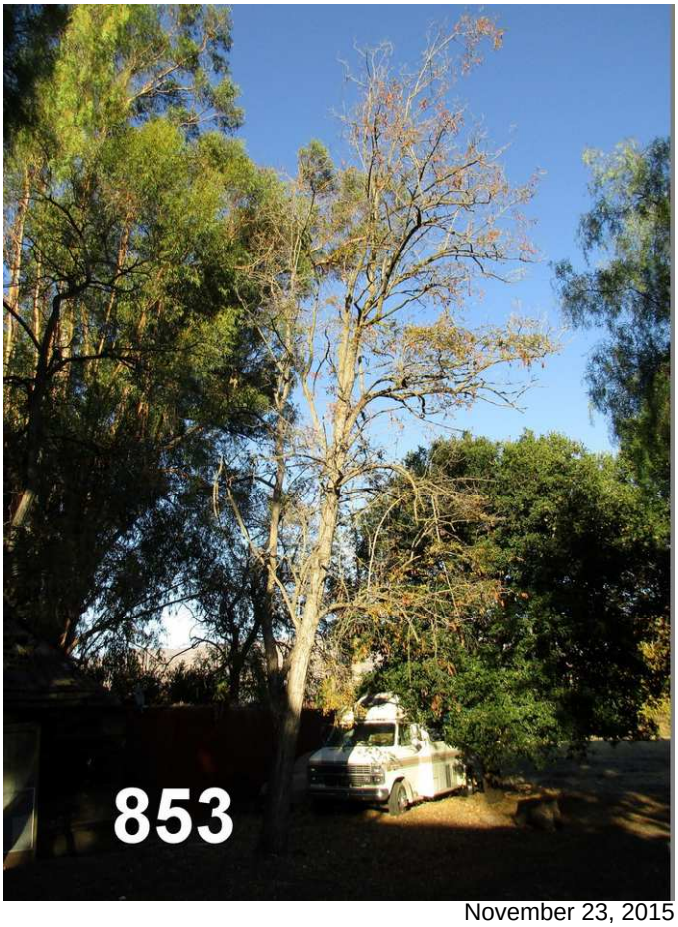
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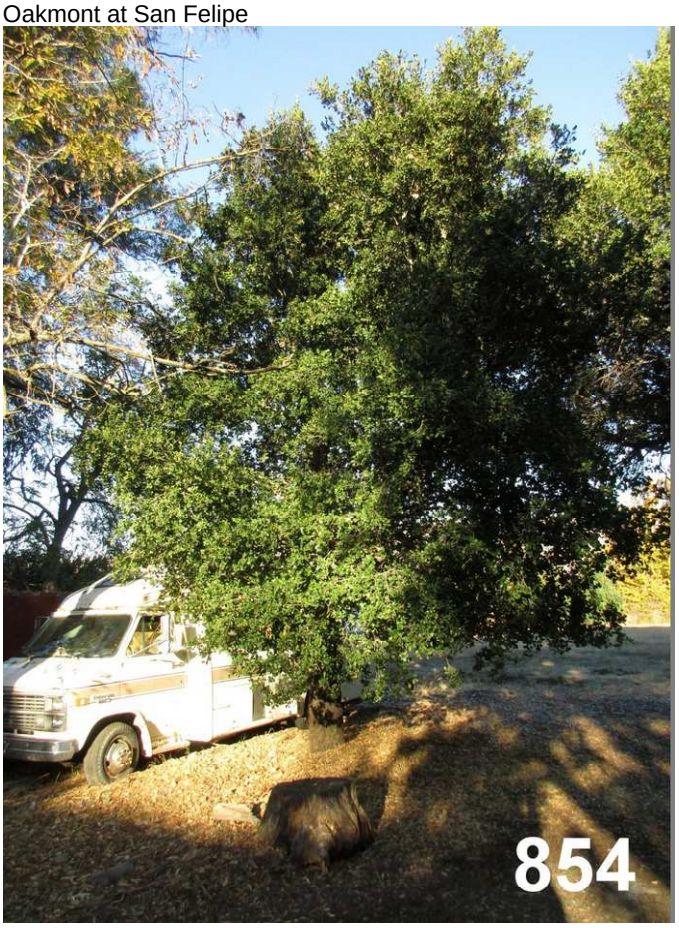
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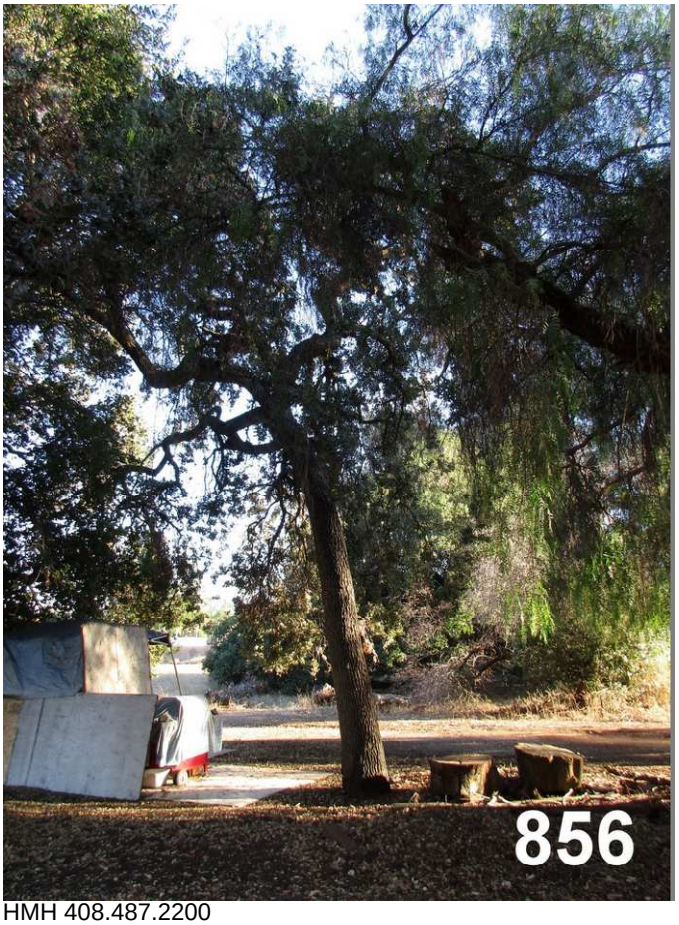
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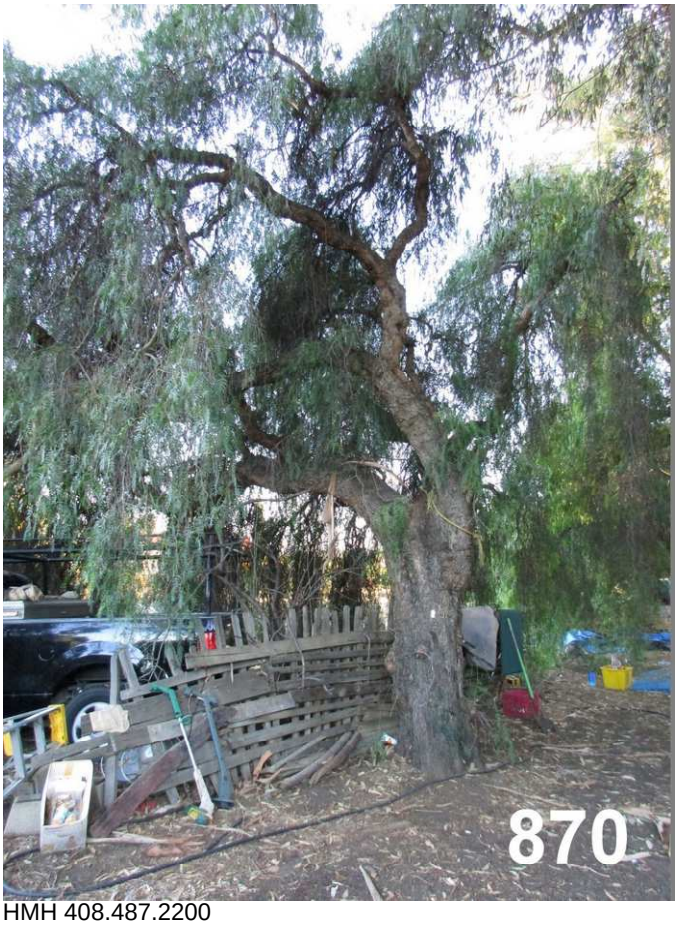
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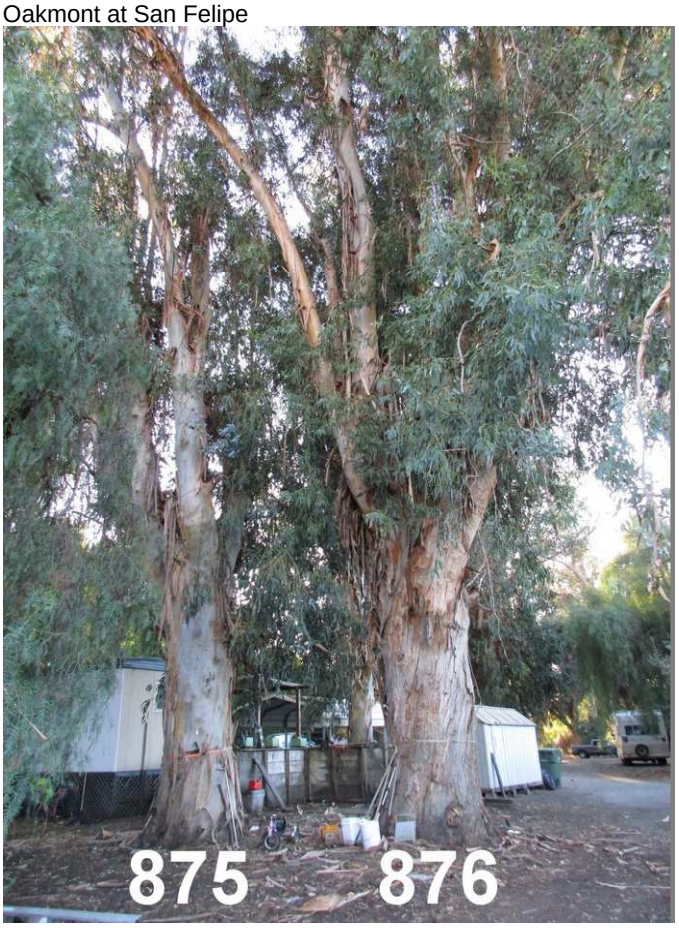
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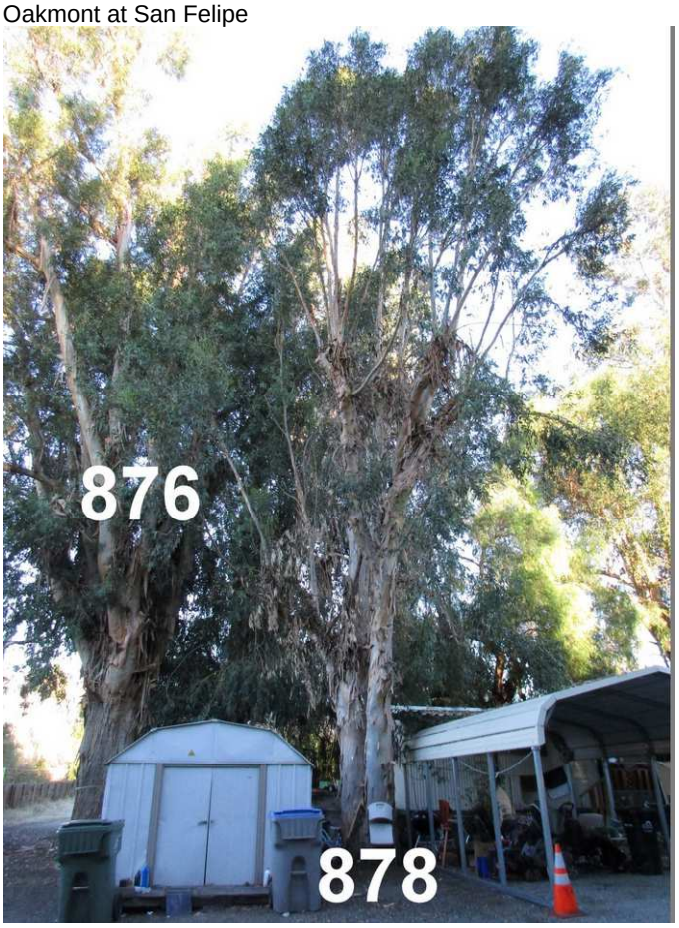
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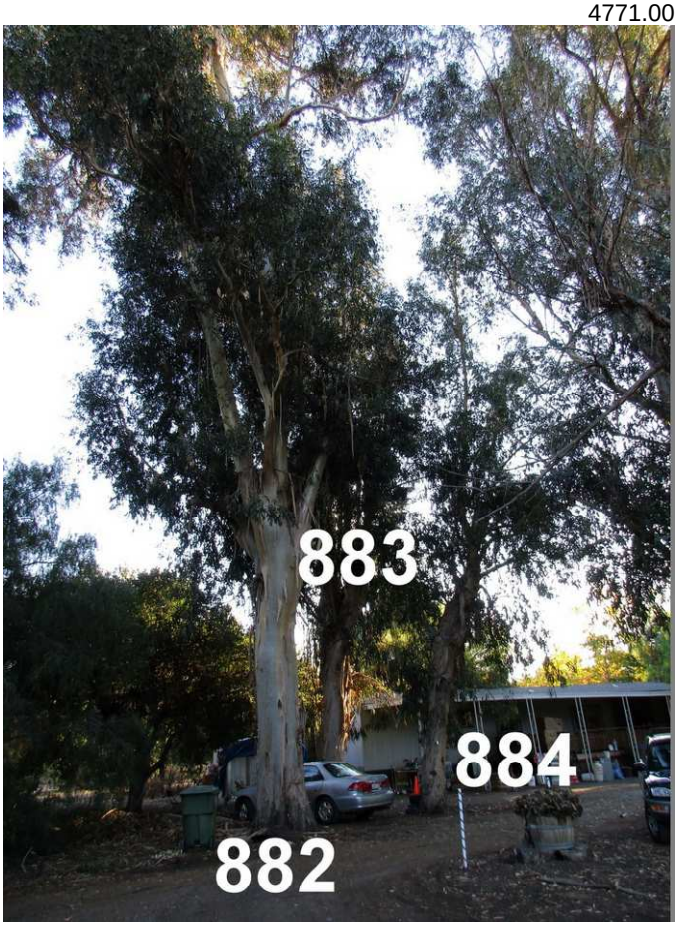
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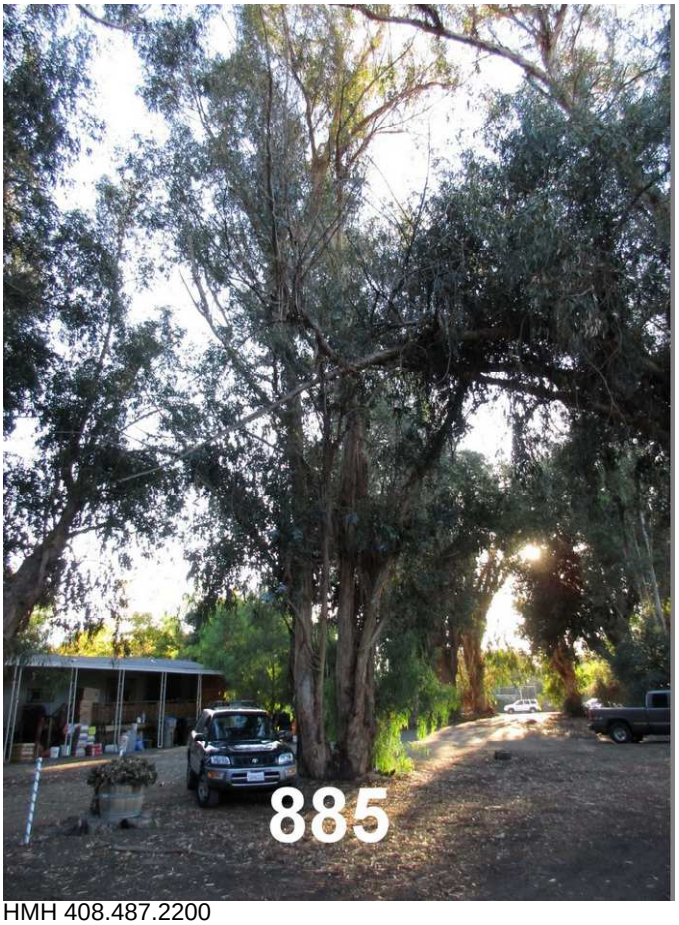
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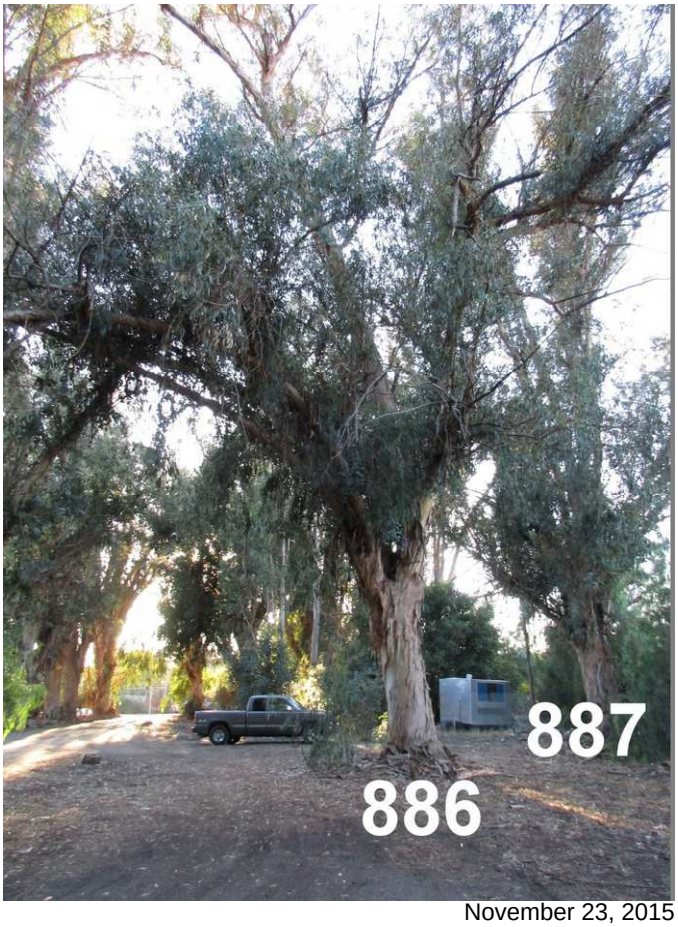
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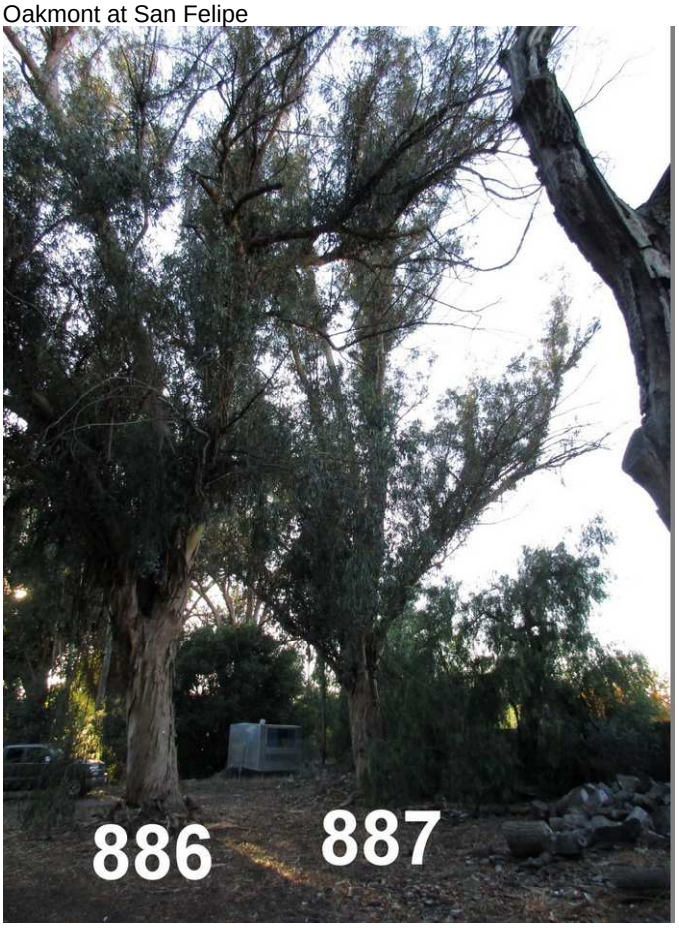
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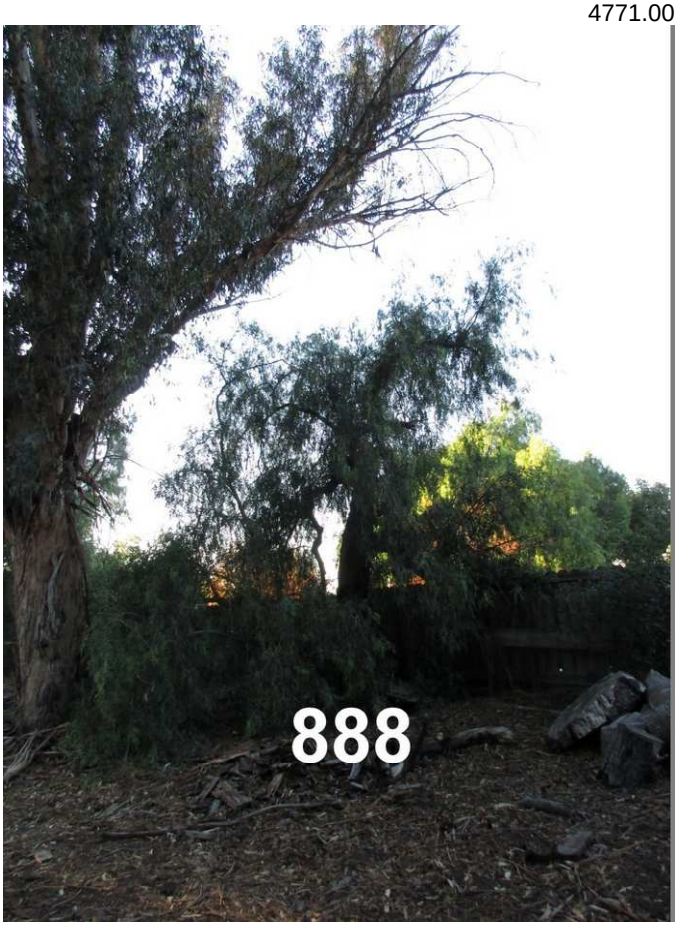
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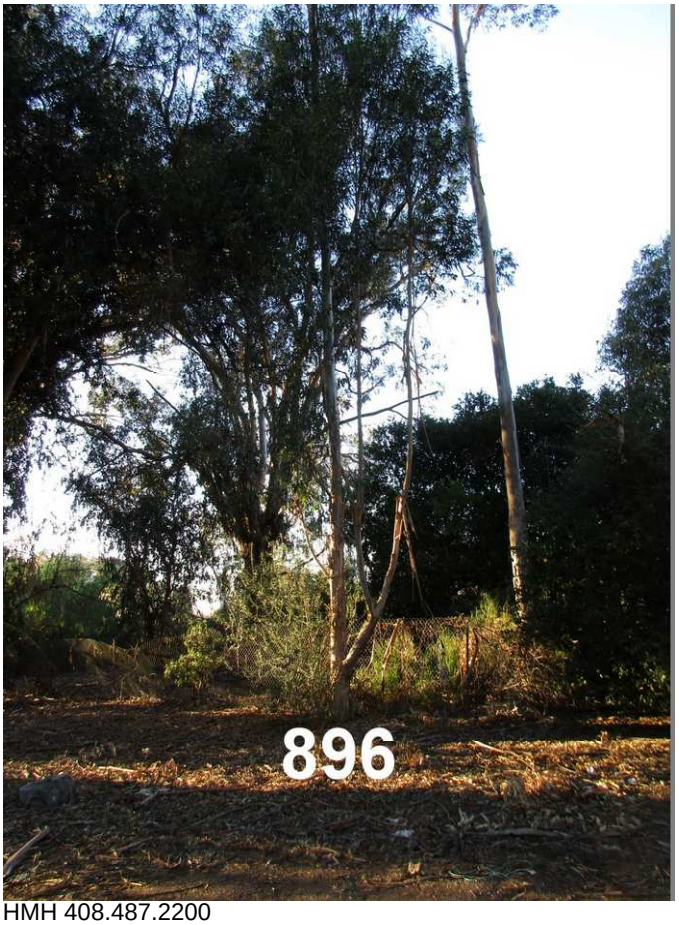
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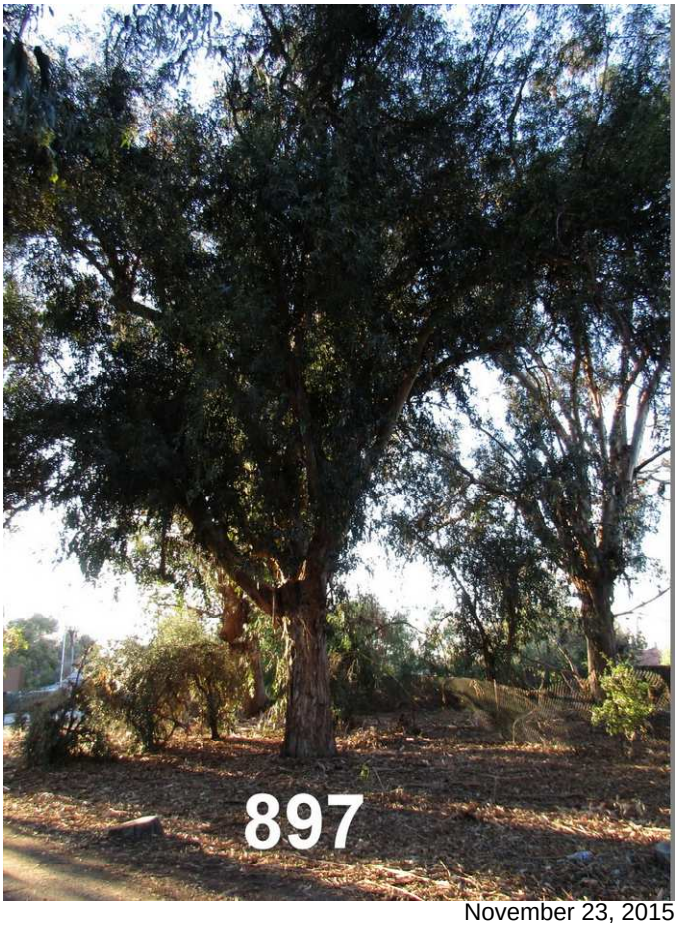
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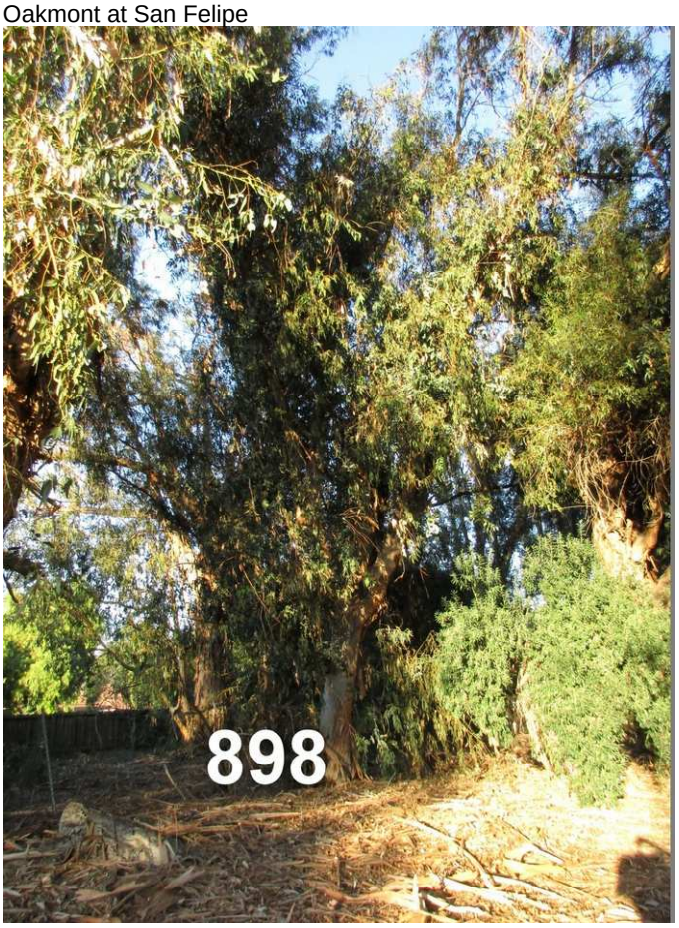
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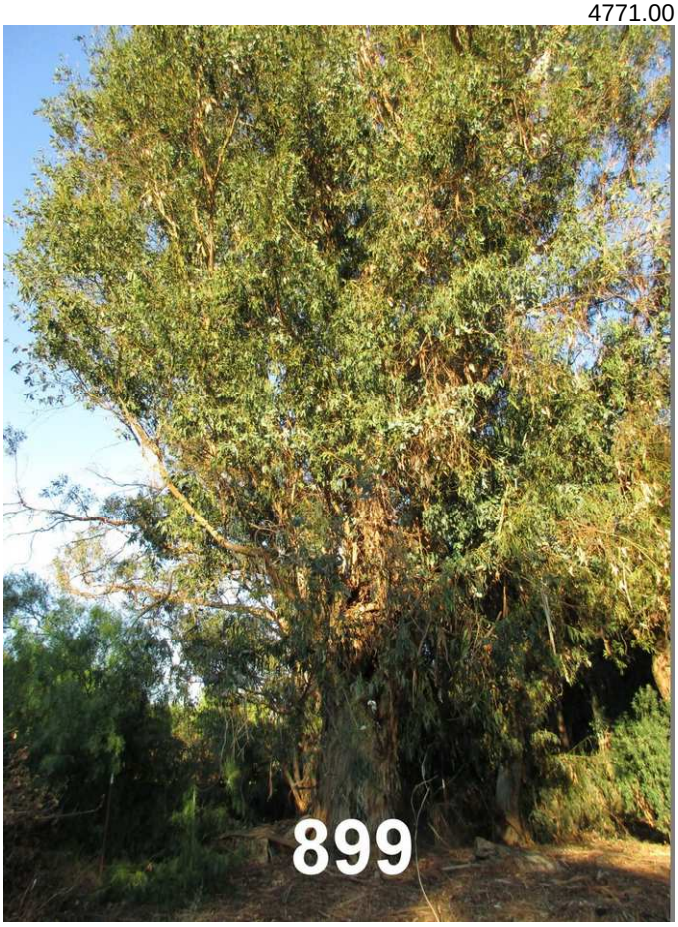
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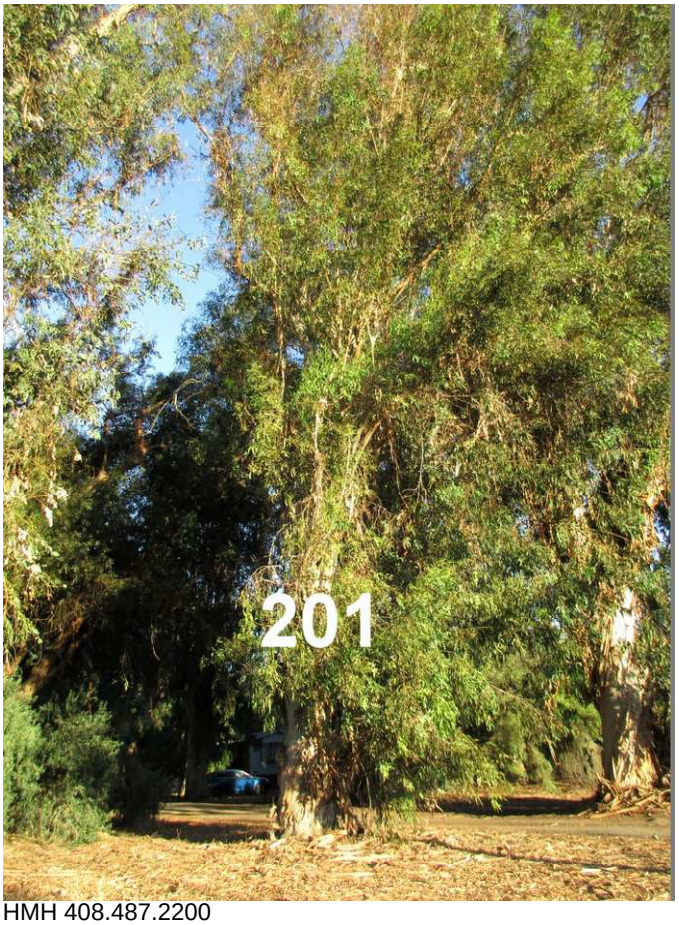
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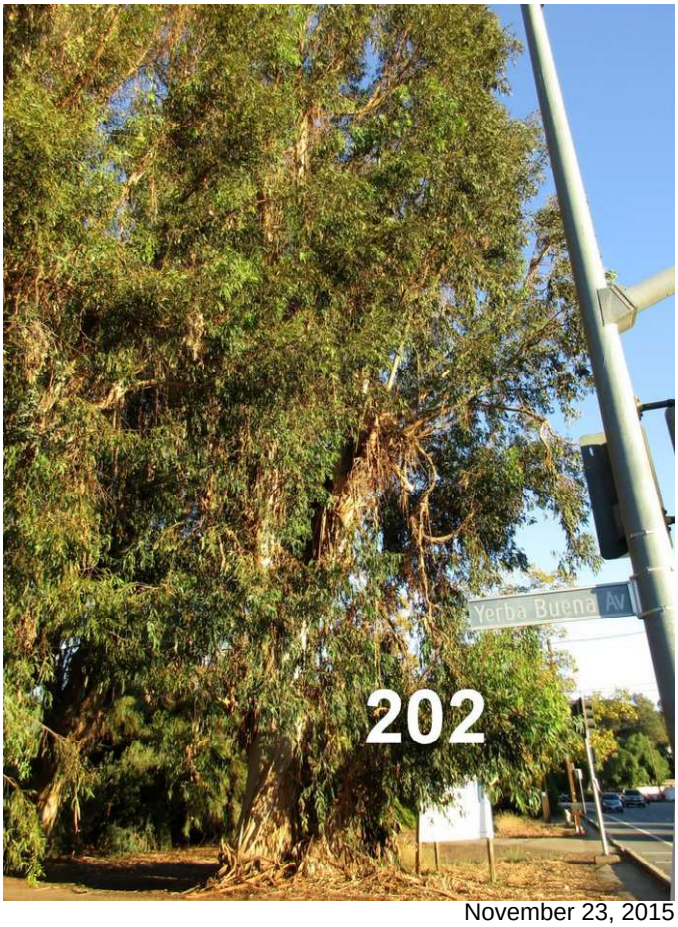
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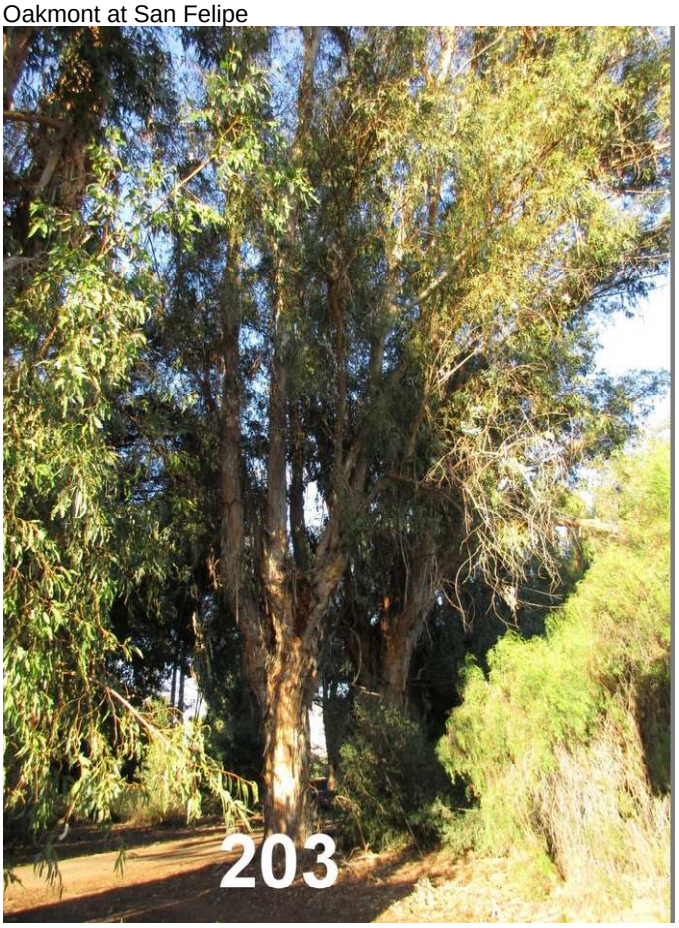
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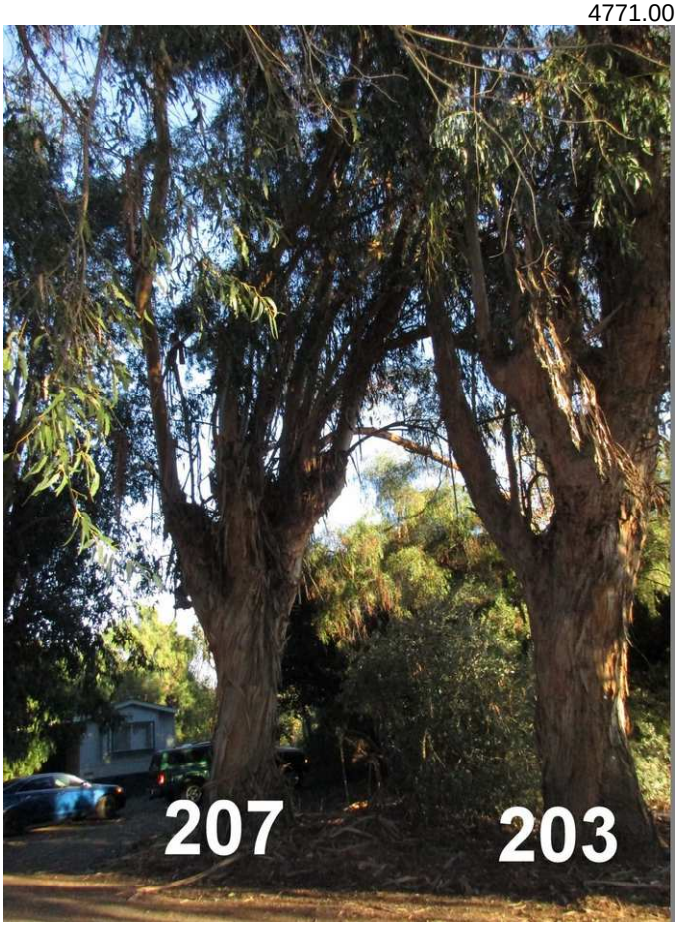
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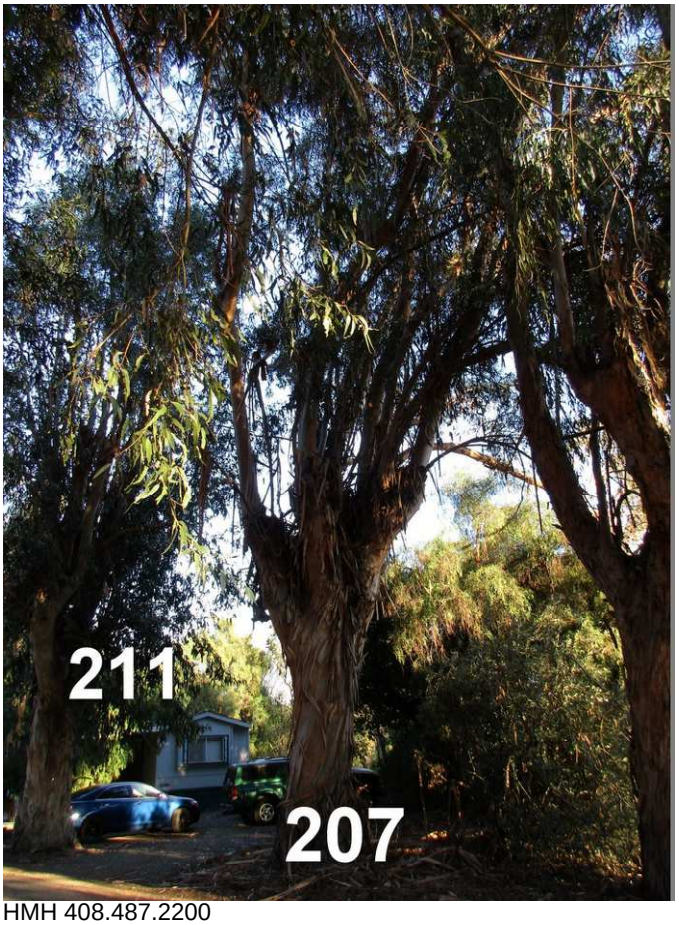
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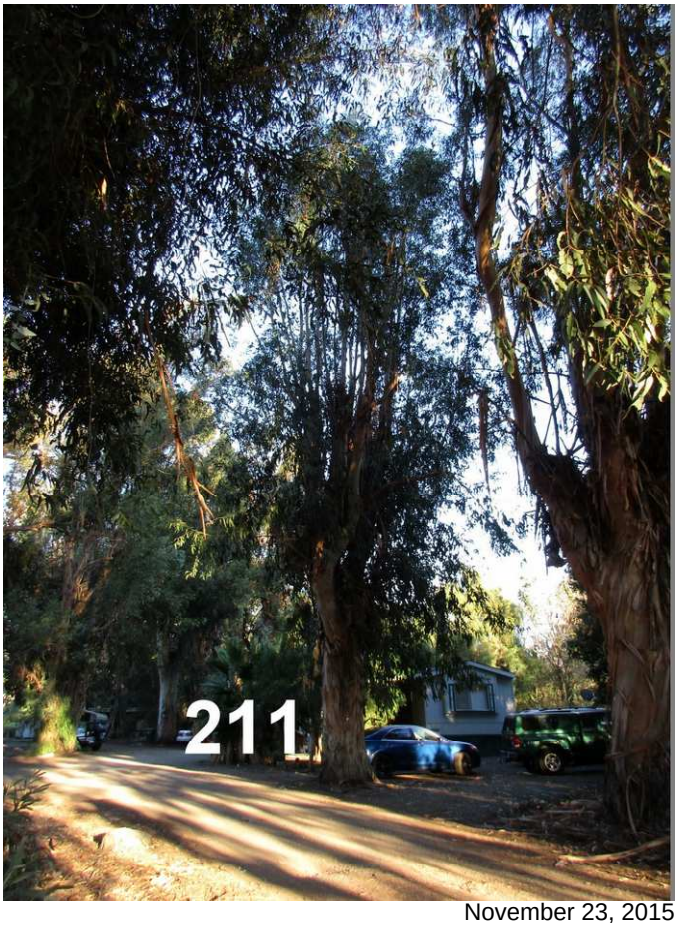
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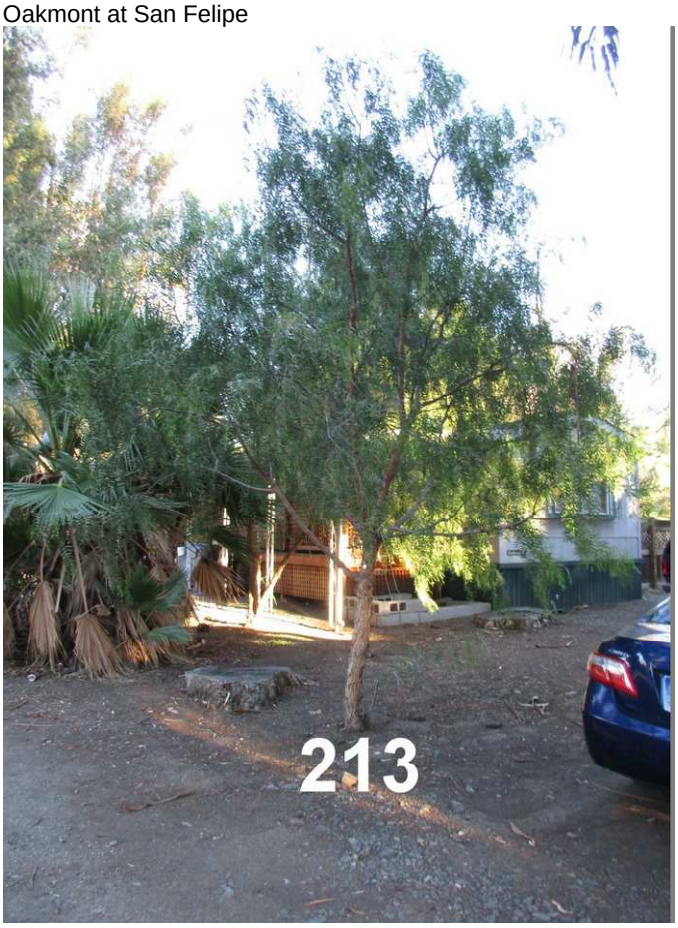
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APPENDIX A - ANSI A300 - PART 1 - PRUNING STANDARDS

American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practice (*Pruning*)

1 ANSI A300 standards

1.1 Scope

ANSI A300 standards present performance standards for the care and maintenance of trees, shrubs, and other woody plants.

1.2 Purpose

ANSI A300 standards are intended as guides for federal, state, municipal and private authorities including property owners, property managers, and utilities in the drafting of their maintenance specifications.

1.3 Application

ANSI A300 standards shall apply to any person or entity engaged in the business, trade, or performance of repairing, maintaining, or preserving trees, shrubs, or other woody plants.

1.4 Implementation

Specifications for tree maintenance should be written and administered by an arborist.

2 Part 1 – Pruning standards

2.1 Purpose

The purpose of this document is to provide standards for developing specifications for tree pruning.

2.2 Reasons for pruning

The reasons for tree pruning may include, but are not limited to, reducing risk, maintaining or improving tree health and structure, improving aesthetics, or satisfying a specific need. Pruning practices for agricultural, horticultural production, or silvicultural purposes are exempt from this standard.

2.3 Safety

2.3.1 Tree maintenance shall be performed only by arborists or arborist trainees who, through related training or on-the-job experience, or both, are familiar with the practices and hazards of arboriculture and the equipment used in such operations.

2.3.2 This standard shall not take precedence over arboricultural safe work practices.

2.3.3 Operations shall comply with applicable Occupational Safety and Health Administration (OSHA) standards, ANSI Z133.1, as well as state and local regulations.

3 Normative references

The following standards contain provisions, which, through reference in the text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard shall apply the most recent edition of the standards indicated below.

- ANSI Z60.1, Nursery stock
- ANSI Z133.1, Tree care operations - Pruning, trimming, repairing, maintaining, and removing trees, and cutting brush - Safety requirements
- 29 CFR 1910, General industry
- 29 CFR 1910.268, Telecommunications
- 29 CFR 1910.269, Electric power generation, transmission, and distribution
- 29 CFR 1910.331 - 335, Electrical safety-related work practices

4 Definitions

4.1 anvil-type pruning tool: A pruning tool that has a sharp straight blade that cuts against a flat metal cutting surface, in contrast to a hook-and-blade type pruning tool (4.21).
4.2 apical dominance: Inhibition of growth of lateral buds by the terminal bud.
4.3 arboriculture: The art, science, technology, and business of commercial, public, and utility tree care.
4.4 arborist: An individual engaged in the profession of arboriculture who, through experience, education, and related training, possesses the competence to provide for or supervise the management of trees and other woody plants.
4.5 arborist trainee: An individual undergoing on-the-job training to obtain the experience and the competence required to provide for or supervise the management of trees and other woody plants. Such trainees shall be under the direct supervision of an arborist.
4.6 branch bark ridge: The raised area of bark in the branch crotch that marks where the branch and parent meet.
4.7 branch collar: The swollen area at the base of a branch.
4.8 callus: Undifferentiated tissue formed by the cambium around a wound.
4.9 cambium: The dividing layer of cells that forms sapwood (xylem) to the inside and inner bark (phloem) to the outside.
4.10 cleaning: Selective pruning to remove one or more of the following parts: dead, diseased, and/ or broken branches (5.6.1).
4.11 climbing spurs: Sharp, pointed devices affixed to a climber's boot used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers)
4.12 closure: The process of woundwood covering a cut or other tree injury.
4.13 crown: The leaves and branches of a tree measured from the lowest branch on the trunk to the top of the tree.
4.14 decay: The degradation of woody tissue caused by microorganisms.
4.15 espalier: The combination of pruning, supporting, and training branches to orient a plant in one plane (5.7.2).
4.16 establishment: The point after planting when a tree's root system has grown sufficiently into the surrounding soil to support shoot growth and anchor the tree.
4.17 facility: A structure or equipment used to deliver or provide protection for the delivery of an essential service, such as electricity or communications.
4.18 final cut: A cut that completes the removal or reduction of a branch or stub.
4.19 frond: A leaf of a palm.
4.20 heading: 1. Cutting a currently growing, or a 1-year-old shoot, back to a bud. 2. Cutting an older branch or stem back to a stub in order to meet a defined structural objective. 3. Cutting an older branch or stem back to a lateral branch not large enough to assume apical dominance in order to meet a defined structural objective. Heading may or may not be an acceptable pruning practice, depending on the application.
4.21 hook-and-blade-type pruning tool: A pruning tool that has a sharp curved blade that overlaps a supporting hook; in contrast to an anvil-type pruning tool (4.1). (syn.: by-pass pruner)
4.22 interfering branches: Crossing, rubbing, or upright branches that have the potential to damage tree structure and/or health.
4.23 internodal cut: A cut located between lateral branches or buds.
4.24 lateral branch: A shoot or stem growing from a parent branch or stem.
4.25 leader: A dominant or co-dominant, upright stem.
4.26 limb: A large, prominent branch.
4.27 lion's tailing: The removal of an excessive number of inner, lateral branches from parent branches. Lion's tailing is not an acceptable pruning practice (5.5.7).
4.28 mechanical pruning: A utility pruning technique where large-scale power equipment is used to cut back branches (5.9.2.2).

4.29 parent branch or stem: A tree trunk, limb, or prominent branch from which shoots or stems grow.
4.30 peeling: For palms: The removal of only the dead frond bases at the point they make contact with the trunk without damaging living trunk tissue. (syn.: shaving)
4.31 petiole: A stalk of a leaf or frond.
4.32 phloem: Inner bark conducting tissues that transport organic substances, primarily carbohydrates, from leaves and stems to other parts of the plant.
4.33 pollarding: The maintenance of a tree by making internodal cuts to reduce the size of a young tree, followed by the annual removal of shoot growth at its point of origin (5.7.3).
4.34 pruning: The selective removal of plant parts to meet specific goals and objectives.
4.35 qualified line-clearance arborist: An individual who, through related training and on-the job experience, is familiar with the equipment and hazards in line clearance and has demonstrated the ability to perform the special techniques involved. This individual may or may not be currently employed by a line- clearance contractor.
4.36 qualified line-clearance arborist trainee: An individual undergoing line-clearance training and who, in the course of such training, is familiar with the hazards and equipment involved in line clearance and has demonstrated ability in the performance of the special techniques involved.
4.37 raising: Selective pruning to provide vertical clearance (5.6.3).
4.38 reduction: Selective pruning to decrease height and/or spread (5.6.4).
4.39 remote/rural areas: Locations associated with very little human activity, land improvement, or development.
4.40 restoration: Selective pruning to improve the structure, form, and appearance of trees that have been severely headed, vandalized, or damaged (5.7.4).
4.41 shall: As used in this standard, denotes a mandatory requirement.
4.42 should: As used in this standard, denotes an advisory recommendation.
4.43 stub: An undesirable short length of a branch remaining after a break or incorrect pruning cut is made.
4.44 thinning: Selective pruning to reduce density of live branches (5.6.2).
4.45 throwline: A small, lightweight line with a weighted end used to position a climber's rope in a tree.
4.46 topping: The reduction of a tree's size using heading cuts that shorten limbs or branches back to a predetermined crown limit. Topping is not an acceptable pruning practice (5.5.7).
4.47 tracing: The removal of loose, damaged tissue from in and around the wound.
4.48 urban/residential areas: Locations, such as populated areas including public and private property, that are normally associated with human activity.
4.49 utility: An entity that delivers a public service, such as electricity or communications.
4.50 utility space: The physical area occupied by a utility's facilities and the additional space required to ensure its operation.
4.51 vista pruning: Selective pruning to allow a specific view (5.7.5).
4.52 watersprouts: New stems originating from epicormic buds. (syn.: epicormic shoots)
4.53 wound: An opening that is created when the bark of a live branch or stem is penetrated, cut, or removed.
4.54 woundwood: Partially differentiated tissue responsible for closing wounds. Woundwood develops from callus associated with wounds.
4.55 xylem: Wood tissue. Active xylem is sapwood; inactive xylem is heartwood.
4.56 young tree: A tree young in age or a newly transplanted tree.

5 Pruning practices

5.1 Tree inspection

5.1.1 An arborist or arborist trainee shall visually inspect each tree before beginning work.
5.1.2 If a condition is observed requiring attention beyond the original scope of the work, the condition should be reported to an immediate supervisor, the owner, or the person responsible for authorizing the work.

5.2 Tools and equipment

5.2.1 Equipment and work practices that damage living tissue and bark beyond the scope of the work should be avoided.
5.2.2 Climbing spurs shall not be used when climbing and pruning trees. Exceptions:
-when limbs are more than throwline distance apart and there is no other means of climbing the tree;
-when the bark is thick enough to prevent damage to the cambium;
-in remote or rural utility rights-of-way.

5.3 Pruning cuts

5.3.1 Pruning tools used in making pruning cuts shall be sharp.
5.3.2 A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent limb, without cutting into the branch bark ridge or collar, or leaving a stub (see Figure 5.3.2).
5.3.3 A pruning cut that reduces the length of a branch or parent stem should bisect the angle between its branch bark ridge and an imaginary line perpendicular to the branch or stem (see Figure 5.3.3).
5.3.4 The final cut shall result in a flat surface with adjacent bark firmly attached.
5.3.5 When removing a dead branch, the final cut shall be made just outside the collar of living tissue.
5.3.6 Tree branches shall be removed in such a manner so as not to cause damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be precut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.
5.3.7 A final cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent limb (see Figure 5.3.7).
5.3.8 Severed limbs shall be removed from the crown upon completion of the pruning, at times when the tree would be left unattended, or at the end of the workday.

5.4 Wound treatment

5.4.1 Wound treatments should not be used to cover wounds or pruning cuts, except when recommended for disease, insect, mistletoe, or sprout con trol, or for cosmetic reasons.
5.4.2 Wound treatments that are damaging to tree tissues shall not be used.
5.4.3 When tracing wounds, only loose, damaged tissue should be removed.

5.5 Pruning objectives

5.5.1 Pruning objectives shall be established prior to beginning any pruning operation. To obtain the defined objective, the growth cycles and structure of individual species and the type of pruning to be performed should be considered.
5.5.3 Not more than 25 percent of the foliage should be removed within an annual growing season. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site.
5.5.4 Not more than 25 percent of the foliage of a branch or limb should be removed when it is cut back to a lateral. That lateral should be large enough to assume apical dominance.
5.5.5 Pruning cuts should be made in accordance with 5.3 Pruning cuts.
5.5.6 Heading should be considered an acceptable practice for shrub or specialty pruning when needed to reach a defined objective.
5.5.7 Topping and lion's tailing shall be considered unacceptable pruning practices for trees.

5.6 Pruning types

Specifications for pruning should consist of, but are not limited to, one or more of the following types:

5.6.1 Clean: Cleaning shall consist of selective pruning to remove one or more of the following parts: dead, diseased, and/or broken branches.

5.6.1.1 Location of parts to be removed shall be specified.

5.6.1.2 Size range of parts to be removed shall be specified.

5.6.2 Thin: Thinning shall consist of selective pruning to reduce density of live branches.

5.6.2.1 Thinning should result in an even distribution of branches on individual limbs and throughout the crown.

5.6.2.2 Not more than 25 percent of the crown should be removed within an annual growing season.

5.6.2.3 Location of parts to be removed shall be specified.

5.6.2.4 Percentage of foliage and size range of parts to be removed shall be specified.

5.6.3 Raise: Raising shall consist of selective pruning to provide vertical clearance.

5.6.3.1 Vertical clearance should be specified.

5.6.3.2 Location and size range of parts to be removed should be specified.

5.6.4 Reduce: Reduction shall consist of selective pruning to decrease height and/or spread.

5.6.4.1 Consideration shall be given to the ability of a species to tolerate this type of pruning.

5.6.4.2 Location of parts to be removed and clearance should be specified.

5.6.4.3 Size range of parts should be specified.

5.7 Specialty pruning

Consideration shall be given to the ability of a species to tolerate specialty pruning, using one or more pruning types (5.6).

5.7.1 Young trees

5.7.1.1 The reasons for young tree pruning may include, but are not limited to, reducing risk, maintaining or improving tree health and structure, improving aesthetics, or satisfying a specific need.

5.7.1.2 Young trees that will not tolerate repetitive pruning and have the potential to outgrow their space should be considered for relocation or removal.

5.7.1.3 At planting

5.7.1.3.1 Pruning should be limited to cleaning (5.6.1).

5.7.1.3.2 Branches should be retained on the lower trunk.

5.7.1.4 Once established

5.7.1.4.1 Cleaning should be performed (5.6.1).

5.7.1.4.2 Rubbing and poorly attached branches should be removed.

5.7.1.4.3 A central leader or leader(s) as appropriate should be developed.

5.7.1.4.4 A strong, properly spaced scaffold branch structure should be selected and maintained.

5.7.1.4.5 Interfering branches should be reduced or removed.

5.7.2 Espalier

5.7.2.1 Branches that extend outside the desired plane of growth shall be pruned or tied back.

5.7.2.2 Ties should be replaced as needed to prevent girdling the branches at the attachment site.

5.7.3 Pollarding

5.7.3.1 Consideration shall be given to the ability of the individual tree to respond to pollarding.

5.7.3.2 Management plans shall be made prior to the start of the pollarding process for routine removal of watersprouts.

5.7.3.3 Internodal cuts shall be made at specific locations to start the pollarding process. After the initial cuts are made, no additional internodal cut shall be made.
5.7.3.4 Watersprouts growing from the cut ends of branches (knuckles) should be removed annually during the dormant season.

5.7.4 Restoration

5.7.4.1 Restoration shall consist of selective pruning to improve the structure form, and appearance of trees that have been severely headed, vandalized, or damaged.
5.7.4.2 Location in tree, size range of parts, and percentage of watersprouts to be removed should be specified.

5.7.5 Vista pruning

5.7.5.1 Vista pruning shall consist of selective pruning to allow a specific view.
5.7.5.2 Size range of parts, location in tree, and percentage of foliage to be removed should be specified.

5.8 Palm pruning

5.8.1 Palm pruning should be performed when fronds, fruit, or loose petioles may create a dangerous condition.
5.8.2 Live healthy fronds, initiating at an angle of 45 degrees or greater from horizontal, with frond tips at or below horizontal, should not be removed.
5.8.3 Fronds removed should be severed close to the petiole base without damaging living trunk tissue.
5.8.4 Palm peeling (shaving) should consist of the removal of only the dead frond bases at the point they make contact with the trunk without damaging living trunk tissue.

5.9 Utility pruning

5.9.1 General

5.9.1.1 The purpose of utility pruning is to prevent the loss of service, comply with mandated clearance laws, prevent damage to equipment, avoid access impairment, and uphold the intended usage of the facility/utility space.
5.9.1.2 Only a qualified line clearance arborist or line clearance arborist trainee shall be assigned to line clearance work in accordance with ANSI Z133.1, 29, CFR 1910.331 – 335, 29 CFR 1910.268 or 29 CFR 1910.269.
5.9.1.3 Utility pruning operations are exempt from requirements in 5.1 Tree Inspection:

5.1.1 An arborist or arborist trainee shall visually inspect each tree before beginning work.
5.1.2 If a condition is observed requiring attention beyond the original scope of the work, the condition should be reported to an immediate supervisor, the owner, or the person responsible for authorizing the work.

5.9.1.4 Safety inspections of the work area are required as outlined in ANSI Z133.1 4.1.3, job briefing.

5.9.2 Utility crown reduction pruning

5.9.2.1 Urban/residential environment

5.9.2.1.1 Pruning cuts should be made in accordance with 5.3, Pruning cuts. The following requirements and recommendations of 5.9.2.1.1 are repeated from 5.3 Pruning cuts.

5.9.2.1.1.1 A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent limb, without cutting in the branch bark ridge or collar, or leaving a stub (see Figure 5.3.2).
5.9.2.1.1.2 A pruning cut that reduces the length of a branch or parent stem should bisect the angle between its branch bark ridge and an imaginary line perpendicular to the branch or stem (see Figure 5.3.3).

5.9.2.1.1.3 The final cut shall result in a flat surface with adjacent bark firmly attached.

5.9.2.1.1.4 When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

5.9.2.1.1.5 Tree branches shall be removed in such a manner so as not to cause damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be precut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

5.9.2.1.1.6 A final cut that removes a branch with a narrow angle of attachment should be made from the bottom of the branch to prevent damage to the parent limb (see Figure 5.3.7).

5.9.2.1.2 A minimum number of pruning cuts should be made to accomplish the purpose of facility/utility pruning. The natural structure of the tree should be considered.

5.9.2.1.3 Trees directly under and growing into facility/utility spaces should be removed or pruned. Such pruning should be done by removing entire branches or by removing branches that have laterals growing into (or once pruned, will grow into) the facility/utility space.

5.9.2.1.4 Trees growing next to, and into or toward facility/utility spaces should be pruned by reducing branches to laterals (5.3.3) to direct growth away from the utility space or by removing entire branches. Branches that, when cut, will produce watersprouts that would grow into facilities and/or utility space should be removed.

5.9.2.1.5 Branches should be cut to laterals or the parent branch and not at a pre-established clearing limit. If clearance limits are established, pruning cuts should be made at laterals or parent branches outside the specified clearance zone.

5.9.2.2 Rural/remote locations – mechanical pruning

Cuts should be made close to the main stem, outside of the branch bark ridge and branch collar. Precautions should be taken to avoid stripping or tearing of bark or excessive wounding.

5.9.3 Emergency service restoration

During a utility-declared emergency, service must be restored as quickly as possible in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268, or 29 CFR 1910.269. At such times it may be necessary, because of safety and the urgency of service restoration, to deviate from the use of proper pruning techniques as defined in this standard. Following the emergency, corrective pruning should be done as necessary.

Annex A (informative)

Reference publications

International Society of Arboriculture (ISA). 1995. Tree Pruning Guidelines. Savoy, IL: International Society of Arboriculture (ISA).