REPORT: SAN ELIJO LAGOON ECOLOGICAL RESERVE VEGETATION MANAGEMENT PLAN prepared by County of San Diego Parks and Recreation Department , San Elijo Conservancy, and the City of Solana Beach

DATE: January 1, 2009

1. PLAN PURPOSE STATEMENT AND BACKGROUND:

1.1 Purpose Statement

The purpose of this Vegetation Management Plan (plan) is to reduce the risk from fire to lives and property in the Solana Beach neighborhoods adjacent to the San Elijo Lagoon Ecological Reserve (Reserve) and to protect the public's interest in the Reserve. To do so, the County of San Diego Department of Parks and Recreation, The San Elijo Lagoon Conservancy, and the City of Solana Beach Fire Department have prepared this plan in consultation with the California Department of Fish and Game to obtain permits from the Cities of Encinitas and Solana Beach. It is consistent with the Memorandum of Understanding between US Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), the California Department of Forestry, the San Diego County Fire Chief's Association, and the Fire District's Association of San Diego County (Attachment 1). This plan guides the removal of exotic vegetation and thinning of native vegetation in select areas between the La Orilla Trailhead and Rios Avenue Trailhead for the time periods specified in 2009 through 2014. The work will be accomplished by hand crews supervised by County of San Diego Department of Parks and Recreation on the public property in the Reserve. Additionally, private property owners will conduct work on their own properties pursuant to Notices and Orders issued by the City of Solana Beach Fire Department (as authorized in permits issued by the Cities). Work will occur in accordance with the plan, for example supervision, tagging, and limits of work, ensuring protection of sensitive habitats, plants, and archaeology. Other procedures, such as supervision, tagging of sensitive plants and "limits of work" specifications in certain areas will be utilized, as noted in the plan, to protect sensitive habitat, plants and archeological resources. The plan has been prepared based upon inspections of the sites, mapping of the work areas and represents a consensus of all of the participants.

1.2 Background

San Elijo Lagoon Ecological Reserve is a 900+ acre estuary and coastal wetlands open space park located at 2710 Manchester Avenue, in Cardiff. The Reserve includes a nature center and is open to the public seven days a week from sunrise to sunset. The Reserve is bordered by the City of Encinitas to the north, the

unincorporated community of Rancho Santa Fe to the east, the City of Solana Beach to the south, and the Pacific Ocean to the west.

The Reserve is jointly owned and managed by the County of San Diego Department of Parks and Recreation (DPR), CDFG, and the San Elijo Lagoon Conservancy (SELC). DPR provides three full-time rangers that are based at the DPR nature center. Administrative support for the Reserve is also provided through the DPR Operations Division. CDFG Lands Department provides biological and administrative support through an Associate Biologist. SELC provides science/monitoring oversight and support to the Reserve through an Executive Director, staff biologists, and administrative staff. Fire jurisdiction in this area is spilt between the Cities of Solana Beach and Encinitas Fire Departments. The City of Solana Beach has jurisdiction over the homes and neighborhood involved in this plan. The City of Encinitas has fire jurisdiction over the Reserve.

The area addressed in this plan is shown in Figure 1 and in more detail in Figures 2, 3, 4, and 5 (Attachment 2). It can be described as the southern side of the San Elijo Lagoon Ecological Reserve, bordering the northern portion of the City of Solana Beach. This area of the Reserve is located within the jurisdicatio of the City of Encinitas, with the exception of the Holmwood Canyon area. The vegetation in this area of the Reserve is dense, woody, coastal sage scrub, maritime chaparral, south slope chaparral, and scrub oak/chaparral mix, with shrub size ranging from 5-15 ft. in height. The plan area can generally be described as coastal bluff with slopes ranging from vertical to gradual. This area lies within Assessor Parcel Numbers 26207136, 26207128, 26121101, 26121017, 26328037, 26328043, 26328065, 26328066, and 26328021 which are owned by the County of San Diego and the State of California (Department of Fish & Game).

In 2004, three housing developments, Santa Fe Hills, San Elijo II, and San Elijo I, which border an area of the Reserve from west to east, raised concerns over the risk of fire due to the presence of native and exotic vegetation in the Reserve and the proximity to residential homes. Six of the homes in these neighborhoods lie very close to the Reserve boundary. The County, acting on a notice from the Solana Beach Fire Department to abate the situation, created a vegetation management plan specific to this local area to reduce the fire risk by thinning the habitat in the Reserve.

The public safety issues and concerns were raised again after the Witch Creek fire in 2007. Therefore, it was decided to prepare a more comprehensive plan for all locations where wildland interface exists in the Reserve. Reserve land managers from the County, CDFG, and SELC met with Solana Beach and Encinitas Fire officials as well as representatives of the Coastal Commission and USFWS. This group utilized "on the ground" mapping and site visits to determine work areas. Vegetation communities, slopes, aspects, defensibility from the homeowners' sides, access, erosion issues, sensitive species, and other physical and biological factors were taken into account in this process.

Therefore, to protect lives and property and reduce the risks from fire in this area, DPR, SELC, and the City of Solana Beach Fire Department propose the following plan based on the mutually agreed upon areas of concern.

Following is a description of the proposed work, and the limits of the work maps (Attachment 2).

2. BIOLOGICAL RESOURCE REVIEW

2.1 Overview

The vegetation habitats in this plan area are coastal sage scrub, maritime chaparral, south slope chaparral, and scrub oak/chaparral mix. Separate areas are delineated by street name, starting from west to east. Each work area includes a brief description, acreage to be thinned, and sensitive plant list. All sensitive plant species will be tagged and work will not occur within 3 feet of the plant. To protect animal species, work will be restricted during nesting season. Additionally, a biologist will observe the work of the crews in the Reserve.

2.2 Holmwood Canyon – Thinning Areas 1 & 2

This work area is characterized by gradual to steep west, east and north facing slopes that form the Holmwood Canyon area. Several homes lie immediately adjacent, and DPR has already conducted vegetation thinning in this area. This plan covers the existing footprint of the original thinning and some additional areas.

Thinning Area 1 **(figure 2)**

- Remove dead fuel load dumped into canyon and all invasive species including succulents.
- Selectively thin Chamise.
- Remove exotic pines.

Thinning Area 2 **(figure 2)**

- Maintain area per the prescribed thinning methods to the original County boundary of clearing in 2005 as delineated in figure 2.

2.3 Solana Hills North – Thinning Area 3 (figure 3)

- Remove dead material and invasive species (specifically Acacia).
- Sensitive species will be tagged and a three-foot buffer will occur around each plant.
- Thin non-sensitive species but do not touch **Manzanita** or **Ceanothus.**

Sensitive Species on Site:

Arctostaphylos glandulosa* ssp. *crassifolia	**Del Mar Manzanita**
Ceanothus verrucosus	**Coast White-Lilac**

2.4 Santa Carina – Santa Inez – Thinning Area 4 (figure 4)

This work area is a gradual west facing slope along a developed areas known as the "Solana's" or the "Santas", where several developments abut the Reserve. The thinning area is at the base of the gradual western facing slope that supports coastal sage scrub and contains some north facing and south facing slopes of maritime chaparral (near Santa Florencia). Several areas within this zone were part of the 2004 thinning plan. There are sensitive species, both plant and animal that reside within the site. All sensitive plant species will be tagged and work will not occur within three feet of the plant.

The general goal for this area is to thin vegetation with particular attention being given to Baccharis pilularis ssp consanguinea - Coyote Bush, and Adenostoma fasciculatum ssp. Fasciculatum - Common Chamise as well as exotic species such as exotic grasses, Eucalyptus and Acacia.

Santa Carina – Santa Inez Area Plant List

Arctostaphylos glandulosa ssp. crassifolia	**Del Mar Manzanita**
Adenostoma fasciculatum ssp. fasciculatum	Common Chamise
Aloe sp.	
Amsinckia sp.	Fiddleneck
Artemisia californica	Coastal Sagebrush
Baccharis pilularis ssp consanguinea	Coyote Bush
Bromus sp.	
Camissonia sp.	
Cardionema ramosissima	Tread Lightly
Carpobrotus sp.	Ice-Plant
Carex triqueta	Triangular-Fruit Sedge
Ceanothus verrucosus	**Coast White-Lilac**
Centaurea melitensis*	Tocalote
Chaenactis glabriuscula	Pincushion
Chlorogalum parviflorum	Small-Flower Soap-Plant
Chorizanthe coriacea	Lastarriaea
Claytonia sp	Miner's Lettuce
Corethrogyne filaginifolia var. linifolia	**Del Mar Sand-Aster**
Cortaderia sp.	Pampas-Grass
Crassula argentea	Jade Plant
Cryptantha sp.	Popcorn Flower
Cuscuta sp.	Dodder
Dichelostemma pulchellum	Blue Dicks
Diplacus puniceus	Coast Monkey Flower

Distichlis spicata	Salt-Grass
Eriogonum fasciculatum ssp fasciculatum	Flat-Top Buckwheat
Foeniculum vulgare *	Sweet Fennel
Gnaphalium californicum	California Everlasting
Hemizonia fasciculata	Fascicled Tarweed
Lotus scoparius ssp. scoparius	Coastal Deer Weed
Marah macrocarpus	Wild-Cucumber
Rhus integrefolia	Lemonade-Berry
Salvia mellifera	Black Sage
Solanum parishii	Parish's Nightshade
Baccharis pilularis ssp. consanguinea	Coyote Bush
Bromus sp.	
Dichelostemma pulchellum	Blue Dicks
Diplacus puniceus	Coast Monkey Flower
Echium fastuosum	Pride-of-Madera
Eriogonum fasciculatum ssp. fasciculatum	Flat-Top Buckwheat
Eriophyllum confertiflorum var.confertiflorum	Long-Stem Golden-Yarrow
Euphorbia peplus	Petty Spurge
Foeniculm vulgare	Sweet Fennel
Galium sp.	Bedstraw
Gnaphalium californicum	California Everlasting
Gnaphalium sp	
Hedra helix	Algerian Ivy
Helianthemum scoparium var. aldersonii	Rush-Rose
Hesperocnide tenella	Western Nettle
Heteromeles arbutifolia	Toyon
Isocoma veneta var. furfuracea	Spreading Goldenbush
Lotus scoparius ssp. scoparius	Coastal Deer Weed
Malosma laurina	Laurel Sumac
Marah macrocarpus	Wild-Cucumber
Mirabilis californica var. californica	Coastal Wishbone Plant
Myoporum lanatum	Myoporum
Nicotiana glauca	Tree Tobacco
Opuntia littoralis var. littoralis	Coastal Prickly-Pear
Parietaria hespera var. californica	Western Pellitory
Pityrogramma triangularis var.viscose	Silverback Fern
Polypodium californicum	California Polypody
Pterostegia drymarioides	Granny's Hairnet
Quercus dumosa (proximal)	**Coast Scrub Oak**
Quercus x	Coastal Scrub Oak hybrid
Rhus integrefolia	Lemonade-Berry
Salvia apiana	White Sage
Salvia mellifera	Black Sage
Sambucus mexicana	Desert Elderberry
Solanum parishii	Parish's Nightshade
Sonchus sp.	Sow-Thistle

Stipa lepida	Foothill Stipa
Xylococcus bicolor	Mission Manzanita
Yucca schidigera	Mohave Yucca
Zigadenus fremontii var. fremontii	Fremont's Camas

2.5 La Orilla – Thinning Area 5 (figure 5)

- Remove dead pampas grass.
- Treat live pampas grass on property with herbicide, of a type noted in this report.

2.6 Vegetation Management Acreage and Square Footage

Thinning Area	Acreage	Square Footage
Area 1	0.49	21,344.4
Area 2	1.16	50,529.6
Area 3	0.36	15,681.6
Area 4	4.08	177,724.8
Area 5	0.34	14,810.4
TOTAL	**6.43**	**280,090.8**

3. CULTURAL RESOURCE REVIEW

3.1 Overview

Archeological sites exist within San Elijo Lagoon Ecological Reserve. Additionally, archeological artifacts of significance have been found within the Reserve. Several sites within the Reserve have been dated to over 8,000 years ago. DPR has reviewed archeological records and has identified archeological sites directly adjacent to the plan area. Because these records are confidential, information regarding specific site locations and significance has intentionally been omitted from this report. DPR is committed to protecting these sites and this plan was developed to minimize any direct and indirect impacts.

3.2 Best Management Practices

The County Historian has submitted the following requirements to safeguard the confidentiality and preservation of known and unknown archeological sites close to the plan area:

- Archeological site locations and significances will be kept confidential.
- Erosion control activities on or near archaeology sites can only be of the non-invasive type, such as installation of sandbags and straw wattles. Erosion control activities that require soil disturbance must be designed in

consultation with the County Historian to avoid direct or indirect impacts to cultural resources.

- Activities removing invasive plant species or thinning of existing plants, which do not require soil disturbances, can take place on or near archeology sites. However, any activities removing plant species that require soil disturbance must be designed in consultation with the County Historian so that all cultural resources are avoided.
- Any soil disturbance planned for restoration activities must be designed in consultation with the County Historian so that all cultural resources are avoided.
- Soil disturbance will be kept to an absolute minimum in all phases of the project. Any soil disturbance will be noted in advance in the plan and the areas checked for cultural resources prior to the disturbance. DPR staff will monitor any digging or excavating, or soil disturbance, including the installation of silt fencing, to check for cultural resources.
- In the event an unknown archeological site is discovered, work in that area will stop immediately until the County Historian can assess the site.
- The County Historian will make all determinations as to how best handle the discovery of an unknown site. At the very least, the site will be recorded and documented.
- In the event artifacts are discovered, they will be the sole property of the County of San Diego and will be handled at the discretion of the County Historian.
- All applicable federal and state laws will apply if human remains are discovered.

The County Historian shall receive notification of the plan work schedule. The Historian will conduct a pre-work review of the cultural resources present in the Reserve with DPR staff and the thinning labor force.

Below is contact information for the County Historian:

Lynne E. Christenson Ph.D.
Historian
County of San Diego
Department of Parks and Recreation
9150 Chesapeake Drive, Suite 200, MS029
San Diego, CA 92123
619.472.2734
Fax 619.472.7575
lynne.christenson@sdcounty.ca.gov

4. VEGETATION MANAGEMENT RECOMMENDATIONS:

4.1 Recommendation

County DPR recommends the following plan to mitigate the risk of fire in this area of the Reserve. The plan is to reduce the flammable vegetation within a 100-foot radius of the six houses that border the Reserve from Santa Carina to Santa Helena.
In order for this plan to be effective, it is critical to remove flammable vegetation in the four zones outlined in the plan. However, removing flammable vegetation only within the Reserve would not achieve the purpose of protecting life and property in the bordering neighborhood. The City of Solana Beach has fire and safety jurisdiction over the thinning of flammable vegetation on the private properties around the identified zones. The Solana Beach Fire Department will work with these homeowners to reduce flammable vegetation on their property. Notices and Orders to the private property owners will be issued by the Fire Department as appropriate and necessary.

The method of clear-cutting a wide firebreak is not in the best interest of the Reserve and is contrary to the purpose of establishing an Ecological Reserve. In addition to the significant loss of habitat, a firebreak of this nature would cause severe soil erosion, expose archeological sites, and encourage invasive exotic plant growth in the Reserve. Severe erosion would cause more sedimentation to enter the lagoon, impacting an already sensitive habitat. Unnecessary exposure of archeological sites is not consistent with cultural resource management standards and would greatly reduce the ability to learn from these sites. Lastly, preventing the introduction and spread of invasive exotic plants is a shared goal of the Reserve landowners because invasives degrade the natural habitat value of the Reserve and adds fuel load and increases fire risk to the surrounding area.

The position of Solana Beach Fire Department, DPR, and SELC is to reduce the fire risk in this area by managing the vegetation in accordance with the MOU. The thinning of flammable vegetation is proposed in the Reserve within a 100-foot radius of the structures in the identified areas. The vegetation would be thinned to a height of 18 inches. All root systems will be left in place to minimize soil disturbance and prevent erosion. As previously stated, this work should only occur in conjunction will the removal of flammable vegetation on private property.

Sensitive species such as, **Quercus Dumosa (Coastal Scrub Oak), Ceanothus Verrucosus (Coastal White Lilac), Arctostaphylos Glandulosa (Del Mar Manzanita), and Corethrogyne Filaginifolia var. Linifolia (Del Mar Sand-Aster)** will not be thinned or disturbed in any way. These species will be tagged and identified on-site by affixing colored tape to branches before thinning commences. The colored tape shall remain affixed to these sensitive species for the duration of the work described in this plan. DPR and SELC staff will monitor and if needed reaffix the colored tape.

4.2 Thinning Methods

The thinning of flammable vegetation in the plan area will be conducted by hand crews under the direct supervision of the DPR Supervising Park Ranger and DPR field staff. DPR management staff and the County Historian will provide plan oversight. Representatives from resource or public agencies are welcomed to monitor and/or participate in the thinning work.
To minimize impacts to the Reserve thinning will occur in accordance with the following:

- All work in the Reserve will be done by hand crews using common pruning tools, such as clippers, loppers, shears, and handsaws.
- Small bar chainsaws will be used to remove larger diameter branches greater than 3".
- Sensitive plant species will not be thinned or removed.
- No motorized vehicles will enter the Reserve.
- No unnecessary soil disturbance will occur.
- All vegetation material will be hand carried out of the plan areas.
- Flammable vegetation will be processed by a chipper onsite.
- Flammable vegetation that is not appropriate to be fed into a chipper will be placed in a dumpster onsite and removed.
- Sterile tools will be used throughout the project to avoid the introduction of fungi and other threats to the native foliage.

DPR is in the process of securing a labor force to complete these thinning recommendations. The labor force may be augmented by DPR field staff from various parks in San Diego County.

DPR will also work with other responsible agencies to educate the neighbors about what they can do to minimize the risk of fire to their property. Where habitat extends from the Reserve on to private property, a courtesy tagging of sensitive species will be offered to private property owners who receive a Notice and Order from the Fire Department for vegetation management on their property.

4.3 Work Time Schedule and Notice

This proposed thinning plan would take place between September 15 and February 15. Work hours would be from 7:00 am to 5:00 pm. It is estimated that the work will take four to six weeks to complete from the time work commences.

Neighbors in the plan area will receive written notice 14 days before the start of work.

4.4 Educational Outreach to Neighbors

DPR will support the City of Solana Beach in educational outreach to the citizens living in the neighborhoods adjacent to the Reserve. The outreach should not only educate citizens about what they can do to minimize the risk of fire to their property, but to also educate them on the purpose and importance of the Reserve. DPR staff has met with citizens in the adjacent neighborhoods and representatives from the Solana Hills Homeowners Association Group on five separate occasions from September 2003 to July 2004 to discuss the ecological sensitivity of the Reserve and explain the details of this plan. The citizens have reviewed and offered input to this plan. Solana Hills Homeowners Association Group representatives and citizens in the area have DPR staff contact information and are encouraged to contact DPR staff if they have any questions or concerns about this plan.

5. EROSION CONTROL

5.1 Overview

Due to dense vegetation and zero soil disturbances, the plan area is currently stabilized and erosion is not a significant problem. The vegetation and thinning methods outlined in section 4 include keeping plant root systems and stumps in place to minimize the potential of erosion. In addition to this approach, Erosion Control Best Management Practices (BMPs) will be implemented in the plan area, see section 7.2 San Elijo Erosion Control BMP Plan and Topo Map. BMPs will be set out immediately following the thinning. BMP installation is included in the four to six week plan timeframe.

DPR has experience in installing and maintaining erosion control BMPs. After the initial installation, BMPs will be checked on a weekly basis by DPR rangers. BMPs will also be inspected during and after each rain event. DPR will make any modification to the BMP installation to ensure they work effectively.

BMPs will remain in place for a minimum of two years or until the ground is stabilized, which ever is longer. The DPR Stormwater Management Team will consult with the County Department of Public Works and CDFG to determine final BMP removal.

5.2 Post Thinning BMPs

Although the vegetation thinning methods in section 4 include leaving all root systems and stumps in place, soil surface will be exposed. To prevent soil erosions, silt fencing, sterile straw wattles, and sandbags will be installed in the plan area.

5.2.1 Silt Fencing

When needed, silt fencing will be placed along the Reserve boundary the entire length of each thinning area. The silt fencing will serve as the plan erosion barrier between the Reserve and private property.

Installation of silt fencing requires the fencing to be set in a 12' trench and staked into place. This soil disturbance will be conducted in consultation with the County Historian. Archeology monitoring will be conducted by DPR staff. All the aforementioned cultural resource BMPs shall be strictly followed.
The silt fence shall be a prefabricated silt fence with a minimum woven polypropylene fabric width of 36 inches and a minimum tensile strength of 100 pounds, conforming to ASTM Designation. The silt fence shall be a prefabricated silt fence composed entirely of biodegradable materials, including filter, backing, binding and staking materials. The silt fence shall maintain sediment removal characteristics for a period of at least one year.

5.2.2 Sterile Straw Wattles

Sterile straw wattles will be the primary BMP method in the thinning areas. Sterile straw wattles are 25-feet long and are secured in the ground with five 18" X 2" X 1" wooden stakes. The wattles will be installed perpendicular to the slope and staff will monitor the effectiveness of the sterile straw wattle installations on a weekly basis. DPR, if needed, will provide additional wattles in areas that are more susceptible to erosion.

The sterile straw wattles shall consist of prefabricated sterile straw in rolls with a minimum diameter of 8 inches (200 mm). The wattles shall be bound with an ultraviolet (UV) degradable plastic netting and shall weigh not less than 1.3 lb per linear foot (1.9 kg per linear meter).

Stakes shall be fir or pine and shall have a cross-sectional area of at least 0.5 square inches (360 mm^2).

5.2.3 Sandbags

Concentrated numbers of sandbags will be installed in areas where slope and soil composition is more susceptible to erosion. DPR staff will monitor the effectiveness of the sandbag installations on a weekly basis. DPR, if needed, will provide additional sandbags. Sandbags will be used throughout the thinning areas. More sandbags will be required in areas where the slope exceeds 10%. Specifically, the east portion of the Santa Florencia thinning area and the entire San Lorenzo area will require concentrated numbers of sandbags to prevent erosion.

Sand bag fabric shall be woven polypropylene, polyethylene or Polyamide with a minimum unit weight of four ounces per square yard (135 g/m^2). The fabric shall have a mullen burst strength of at least 300 psi (2067 kPa) and an ultraviolet (UV) stability exceeding 70 percent.

6. INVASIVE EXOTIC MANAGEMENT PLAN

6.1 Overview

Invasive exotic plant species control is currently an ongoing process in the overall management of the Reserve. The three Reserve property owners have successfully contributed to this process; DF&G, SELC, and DPR.

County DPR and SELC have agreed to support and assist each other in the invasive species component of this plan. DG&F will also be consulted and utilized as a resource in conjunction with this plan. DF&G has a long history of managing invasive exotic plant species in the Reserve as well. All Reserve property owners will be kept informed about the frequency and effectiveness of herbicide applications.

On site DPR park rangers, supported by SELC staff, will monitor the thinning areas for invasive exotic species. Herbicide applications will be announced to the Reserve property owners and documented accordingly.

Although DPR staff cannot apply herbicide at this time, the following invasive exotic species control options are possible.

- SELC has a secured a exotic plant eradication grant for the Escondido Creek Watershed, and has expressed a willingness to use this resource in the thinning areas.
- DPR can procure and provide preferred herbicides to SELC and DF&G for application.
- DPR can procure invasive exotic species control services from licensed and certified professional herbicide applicators (contingent on available funds).

The following are preferred herbicides that can be used in the plan areas:

- Round-up
- Aqua Master
- Telar
- Nightstalker

The monitoring and control of invasive exotic plant species in the thinning areas will continue as part of the ongoing management of San Elijo Lagoon Ecological Reserve.

7. Conclusion:

This Vegetation Management Plan represents the consensus of the agencies which are signatories below, who have developed it to reduce the risk from fire to lives and property in the City of Solana Beach neighborhoods adjacent to the San Elijo Lagoon and Ecological Reserve. The plan provides the basis for submittal for permits to authorize the work in the jurisdictions of the Cities of Solana Beach and Encinitas. The work will be performed on the public property of the Reserve by The County of San Diego Department of Parks and Recreation and on private property by the property owners pursuant to Notices and Orders from the City of Solana Beach Fire Department. This plan will guide the work for the calendar years of 2009 through 2014.

Approved:

Renée Bahl, 29 Jan 09
Renée Bahl, Date
Director, Parks and Recreation Department
County of San Diego

Doug Gibson, 29 Jan 09
Doug Gibson, Date
Executive Director
Principal Biologist
San Elijo Lagoon Conservancy

David Ott, 1-30-09
David Ott, Date
Fire Chief
City Manager
City of Solana Beach

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE FISH AND WILDLIFE SERVICE OF
THE UNITED STATES DEPARTMENT OF THE INTERIOR,
THE CALIFORNIA DEPARTMENT OF FISH AND GAME,
THE CALIFORNIA DEPARTMENT OF FORESTRY,
THE SAN DIEGO COUNTY FIRE CHIEF'S ASSOCIATION AND
THE FIRE DISTRICT'S ASSOCIATION OF SAN DIEGO COUNTY

A. INTRODUCTION

Many species of plants and wildlife in the County of San Diego have been listed and continue to be listed as threatened or endangered by the Secretary of the Interior pursuant to the federal Endangered Species Act and by the California Fish and Game Commission pursuant to the California Endangered Species Act. Additionally, many listed and species that may be listed in the future are protected in certain areas by agreements among jurisdictions and the wildlife agencies, pursuant to the state of California's Natural Communities Conservation Planning (NCCP) program. In light of these listings, officials of the California Department of Forestry, and the members of the San Diego County Fire Chief's Association and the Fire Districts Association of San Diego County have expressed concerns regarding their ability to continue to require the abatement of flammable vegetation within their respective jurisdictions in order to protect life, property and the environment from the threat of fire.

B. AUTHORITIES

This Memorandum of Understanding is hereby made and entered into by and between the California Department of Forestry, hereinafter referred to as "CDF"; the San Diego County Fire Chief's Association, hereinafter referred to as the "Fire Chiefs"; the Fire District Association of San Diego County, hereinafter referred to as the "Districts"; the Fish and Wildlife Service of the United States Department of the Interior, hereinafter referred to as the "Service"; and the California Department of Fish and Game, hereinafter referred to as "Department" under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. Section 1531 et. seq.) the Fish and Game Code Section 702 and the California Endangered Species Act, as amended (Fish and Game Code Section 2050, et. seq.).

C. PURPOSE

The purpose of this Memorandum of Understanding is to establish guidelines by which the CDF, Fire Chiefs and the Districts can continue to protect lives and property from the threat of fire by requiring the abatement of flammable vegetation pursuant to State Law, County and District ordinances and Cities' municipal codes and to establish a cooperative mechanism whereby the Service and Department may assess, minimize, and help account for potential adverse impacts to sensitive species and habitats resulting from vegetation abatement activities.

ATTACHMENT 1

D. RECITALS

1. Fire Districts are responsible for assuring compliance with applicable provisions of their ordinances, the California Health and Safety Code and the California Public Resources Code sections 4290 & 4291 regarding the abatement of flammable vegetation.
2. Fire Departments of the Cities are responsible for assuring compliance with the Government Code and applicable provisions of their municipal codes regarding the abatement of flammable vegetation.
3. CDF is responsible for assuring compliance with applicable provisions of the California Public Resources Code sections 4290 & 4291 regarding the abatement of flammable vegetation.
4. The Service is responsible for enforcing the federal Endangered Species Act of 1973.
5. The Department is responsible for enforcing the California Endangered Species Act, and the Native Plant Protection Act. The Service and Department together administer the state NCCP program (NCCP Act of 1991.)
6. Areas immediately surrounding improvements to real property, whether such areas are undeveloped wildlands or are altered in some way, do not generally constitute core natural habitat areas, nor do they typically support sensitive species, by virtue of their proximity to human activities.
7. Uncontrolled wildfires pose a serious threat to human lives and property, but are generally part of the natural disturbance cycle of adjacent wildlands. The propensity of wildlands to carry fire to human developments usually necessitate the provision of fuel breaks in order to reduce or eliminate the likelihood of damage to property.
8. Properly maintained fuel modification zones and fire breaks will reduce the incidence of non-Natural fires spreading from developed areas to natural land and lower the potential impacts of unseasonable and frequent wildfires to listed species and their habitats."

NOW THEREFORE, the parties hereto mutually agree as follows:

Section I. General Terms and Conditions:

This MOU authorizes the take of species listed as threatened or endangered, or candidate species (under Chapter 1.5 of Division 3 of the Fish and Game Code) for management purposes necessitated by or incidental to those certain fire protection measures described herein.

The management purposes for which this MOU is issued are:

1. Mandatory fire protection measures in accordance with Section 4290 of the Public Resources Code, specifically:

(a) Measures necessary to implement minimum fire safety standards related to defensible space which are applicable to state responsibility are lands under the authority of CDF.

(b) Measures necessary to implement minimum safety standards related to fuel breaks and greenbelts.

(c) Other measures required by Section 4290 as determined by the Director of CDF.

2. Mandatory fire protection measures in accordance with Section 4291 of the Public Resource Code, specifically:

   (a) The maintenance around and adjacent to any building or structure in, upon, or adjoining any mountainous area or forest-covered lands, brush-covered lands, or grass-covered lands, or any land which is covered with flammable material, of a fire break made by removing and clearing away, for a distance of not less than 30 feet on each side of such building or structure or to the property line, whichever is nearer, all flammable vegetation or combustible growth.

   (b) The maintenance around and adjacent to any building or structure such as is described in (a) above, additional fire protection or fire break made by removing all brush, flammable vegetation, or combustible growth which is located from 30 feet to 100 feet from such a building or structure or to the property line, whichever is nearer, as may be required by the Director of Forestry and Fire Prevention upon a finding that, because of extra hazardous conditions, a firebreak of only 30 feet around such building or structure is not sufficient to provide reasonable fire safety, and including the maintenance of grass and other vegetation more than 30 feet from such building or structure and less than 18 inches in height where necessary to stabilize the soil and prevent erosion.

3. Mandatory fire protection measures in accordance with Section 4296.5 of Public Resource Code, specifically, upon order of the Director of Forestry and Fire Protection or the agency having primary responsibility for the fire protection of the area, the destruction, removal, or modification so as not to be flammable, of any vegetation or other flammable material on any railroad right-of-way on forest-covered, brush-covered, or grass-covered land.

4. Any measures as deemed necessary by the Fire Chief and in accordance with the Guideline section of this MOU.

Section II. GUIDELINE

The following guidelines may be implemented by individuals or entities owning or leasing property within the jurisdiction of the County and the Cities as well as by CDF, Fire Districts, and the Cities:

a. **Improved Property.** Property owners, their lessees, CDF, fire districts, and cities shall be permitted to clear all flammable vegetation within a one hundred (100) foot radius of all structures[1] using methods, such as mowing and trimming that leave the plant root structure intact to stabilize the soil. Clearing is not limited to these methods and discing, which exposes bare mineral soil, may be used if deemed necessary by the local fire chief. Where the distance from the structure to the property line of the parcel on which the structure is located is less than the distance required to be cleared, the adjacent owner, lessee, CDF, fire districts, or cities shall be permitted to establish the required fuel break. The removal of flammable vegetation does not apply to single specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if the Chief of the local fire department determines that they do not form a means of rapidly transmitting fire from the native growth to any structures.

b. **Unimproved Property.** Property owners, their lessees, fire districts and cities shall be permitted to establish fuel breaks on unimproved property if such a fire break is deemed necessary based on written findings by the Chief of the local fire department to protect improved property, or public safety and welfare. The Chief of the local fire department shall deem such a fuel break necessary only if the subject property is located within an unusually high fuel loading area or within a high or very high hazard area as determined by California Department of Forestry Fire Severity Mapping. These findings shall be provided to the Department and Service upon their adoption by the Chief of the Fire Department at least ten (10) days prior to the issuance of abatement orders. If the Department of Service fail to respond within the ten-day period, the party may complete the abatement and not be in violation of this MOU. Clearing may be done using methods, such as mowing and trimming that leave the plant root structure intact to stabilize the soil. Clearing is not limited to these methods and discing, which exposes bare mineral soil, may be used if deemed necessary by the local fire chief.

c. **Areas previously cleared.** Areas that have been consistently cleared of vegetation over the last three years may continue to be cleared even though they are outside of the limits established in Sections a. and b. above.

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[1]For the purposes of this MOU, the term "structure" does not include fences or similar barriers enclosing or separating areas of land.

d. **Roadway clearance.** Property owners, their lessees, fire districts, the County of San Diego, Cal Trans and cities shall be permitted to clear up to 30' along each side of established regularly traveled roadways. The required width will be at the discretion of the fire chief.

e. **Prior or Future Agreements.** The terms and guidelines in this MOU may be superseded by any other specific agreement entered into with the Service or the Department governing the removal of vegetation. This MOU shall not preclude revision of the flammable vegetation abatement guidelines contained herein when future regional and local conservation plans are adopted by the local jurisdictions.

f. **Federal Lands.** Land owned or controlled by Federal Multiple Use Land Management Agencies, will be handled on a "case by case" basis, with the federal agency that controls the subject lands to determine what clearing is appropriate.

g. Property owners, their lessees, fire districts, and cities shall continue to avoid vegetation removal in recognizable riparian (stream side) zones and vernal pool depressions, as these areas are naturally somewhat resistant to fire and are subject to separate federal and state regulations. If such removal is deemed necessary by the local fire chief, the Department and Service must be notified in writing and consulted at least ten (10) days prior to anticipated vegetation abatement. If the Department and Service fail to respond within the ten-day period, the party may complete the abatement and not be in violation of this MOU.

Section III NOTIFICATION OF LANDOWNERS

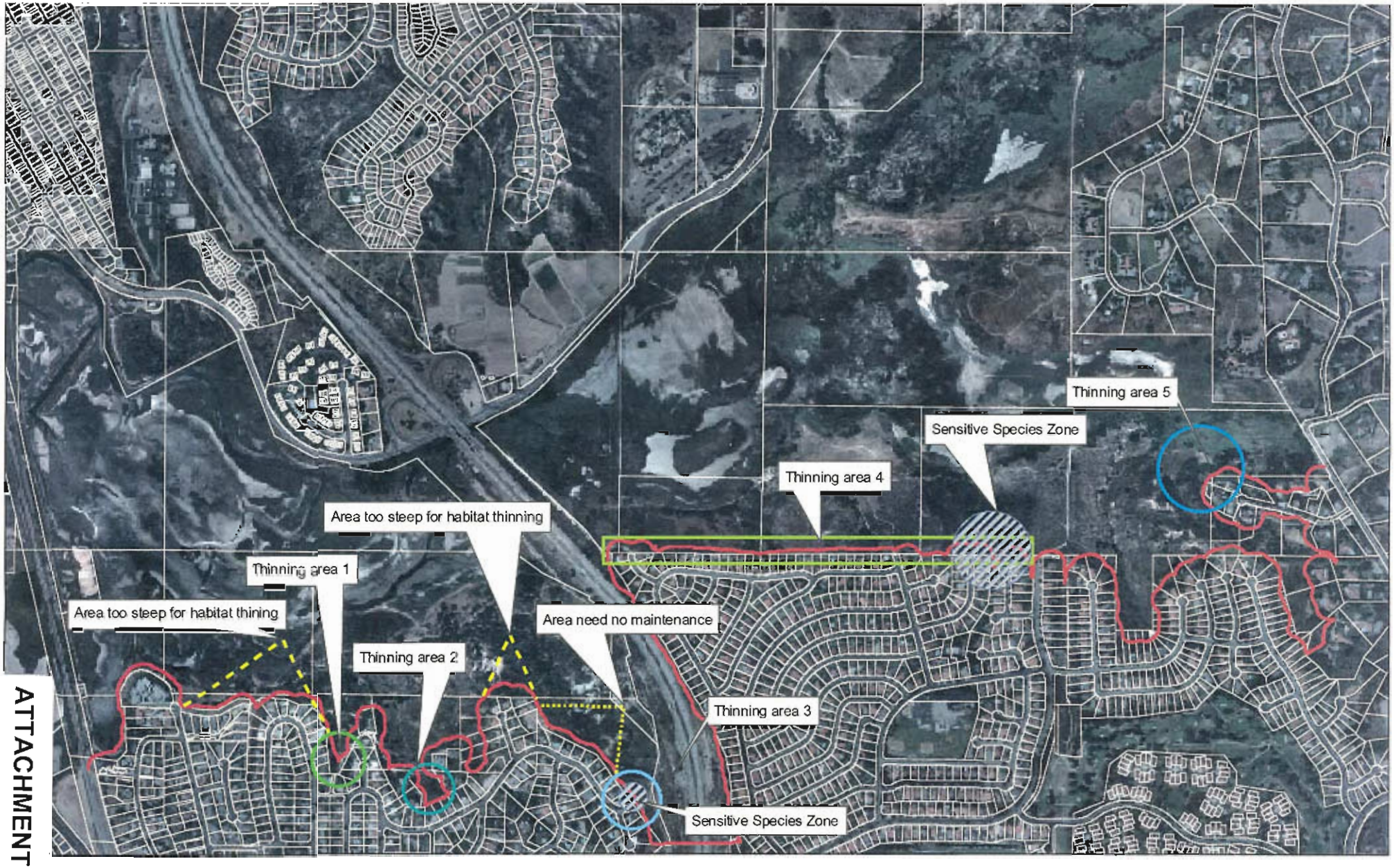
Fire agencies that require abatement of flammable vegetation clearance shall develop guidelines for this clearance. These guidelines shall be made available to the public, either through direct mail or a public notices, stating that the guidelines are available and the location where they can be obtained. The guidelines must include directions as to the minimum and maximum limits for vegetation clearing and acceptable clearing methods. Additionally, the following statement shall be included in the guidelines:

> Landowners who have received notice from the California Department of Fish and Game or U.S. Fish and Wildlife Service of the occurrence of rare, threatened, or endangered species on their property in areas subject to fuel break clearance must notify both agencies in writing at least 10 days prior to vegetation clearing. The agencies will have up to 10 days following such notification to (1) determine whether the proposed clearing complies with State and/or Federal endangered species requirements and (2) to suggest voluntary, alternative abatement measures if feasible and warranted. Failure of the agencies to respond within 10 days will allow the landowner to proceed with abatement

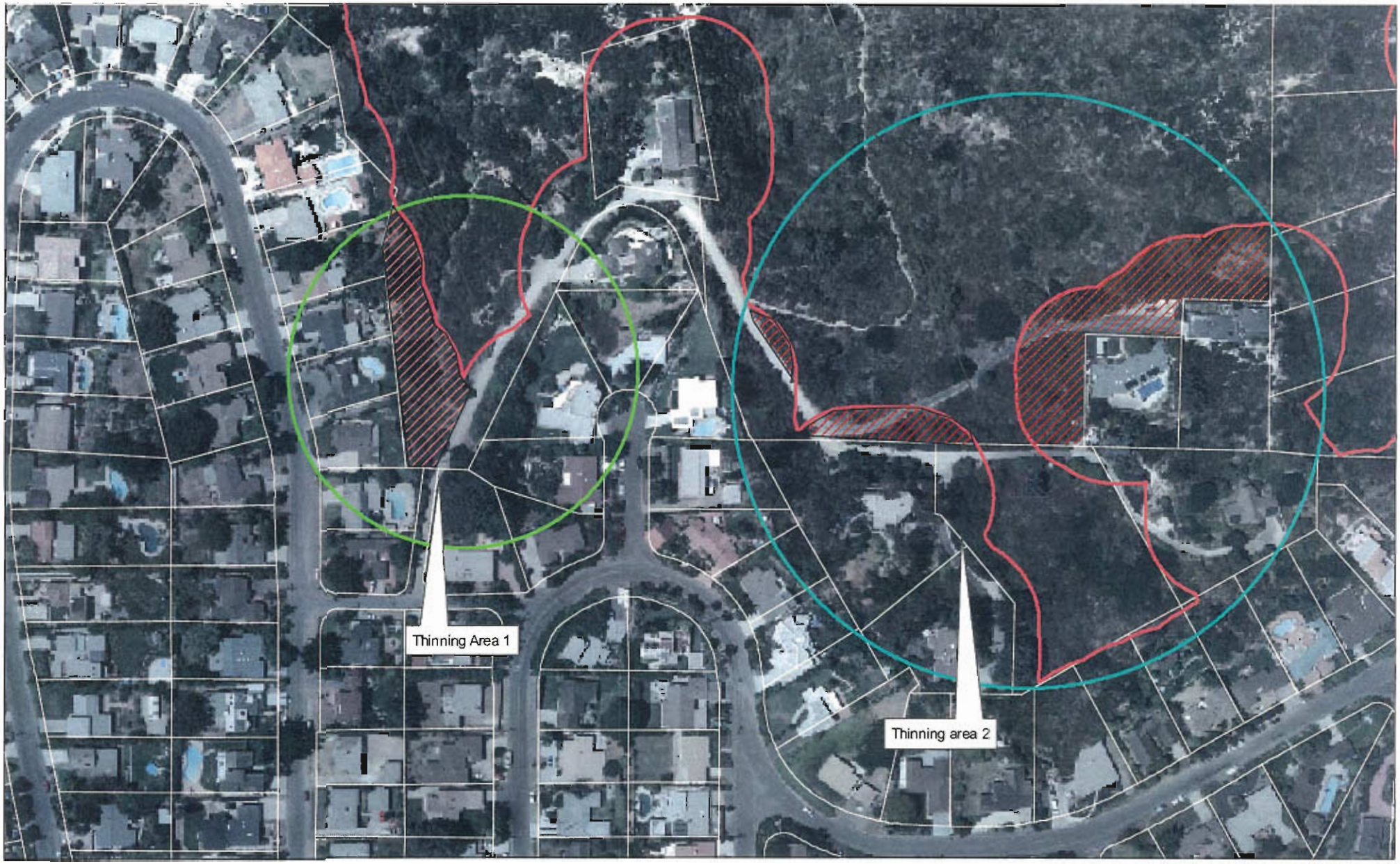
activities without further delay. Failure by landowners to provide adequate notification as described above may render landowners liable under State and Federal law.

Section IV. BIOLOGICAL SURVEYS

Property owners, their lessees, CDF, fire districts and cities shall not be required to perform biological surveys as a condition precedent to performance of the fire protection activities established by the guidelines set forth in Section 1.



ATTACHMENT 2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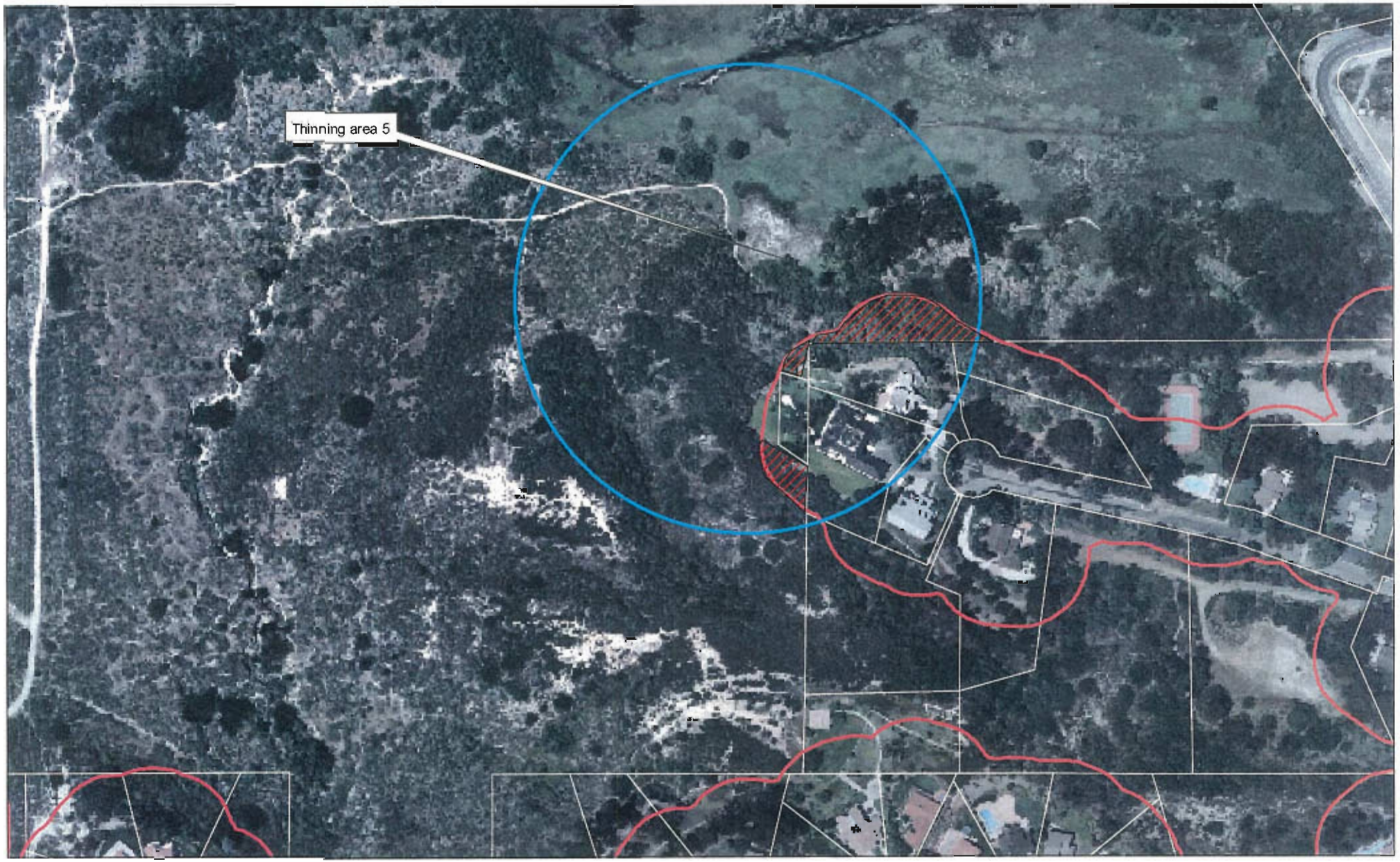
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