

Application No.: A.06-07-_____.

Exhibit No.: _____

Witness: Timothy M. Knowd

Application of SAN DIEGO GAS & ELECTRIC
COMPANY (U 902 E) for Recovery of Costs Related to
the California Bark Beetle Infestation under the
Catastrophic Event Memorandum Account (CEMA).

PREPARED DIRECT TESTIMONY OF
TIMOTHY M. KNOWD
SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
July 18, 2006

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

**PREPARED DIRECT TESTIMONY OF
TIMOTHY M. KNOWD**

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

I. PURPOSE OF TESTIMONY

The purpose of my testimony is to describe San Diego Gas & Electric Company's (SDG&E's) tree removal efforts during the period September 1, 2004 through June 30, 2006 related to the Bark Beetle infestation. As a result of these efforts, incremental costs of \$8.165 million were recorded to the Bark Beetle Catastrophic Event Memorandum Account (CEMA) during the same period. This testimony

- Provides Bark Beetle background information,
- Describes the Bark Beetle project team,
- Describes the Bark Beetle project and schedule,
- Sets forth the incremental Bark Beetle costs, and
- Concludes that SDG&E successfully and effectively managed the Bark Beetle project.

The testimony of Todd J. Cahill sets forth the total amount for which SDG&E is seeking recovery (including interest) and describes SDG&E's proposed recovery method.

II. BARK BEETLE BACKGROUND INFORMATION

As a result of a prolonged drought in Southern California, combined with related insect infestations, tree mortality increased significantly over normal levels in the mountainous areas of San Diego County beginning in 2002. The high number of dead trees and the extreme fire conditions existing in these areas, prompted then Governor Gray

1 Davis to declare a state of emergency on March 7, 2003. The counties most severely
2 affected by the drought and the resulting insect infestations listed in the Governor's
3 proclamation include San Diego, San Bernardino, and Riverside. See Attachment A for
4 maps illustrating the areas of the SDG&E service territory subject to the Governor's
5 declaration. In response, the California Public Utilities Commission (CPUC or
6 Commission) issued Resolution E-3824 on April 3, 2003, which directed the affected
7 utilities to remove dead, dying and diseased trees located near overhead power lines and to
8 charge the costs to CEMA. The Bark Beetle affected areas included Palomar Mountain,
9 the greater Julian area, Cuyamaca mountain area, Mount Laguna, Corte Madera, and
10 Descanso. The most severely impacted tree species in San Diego County include:
11 Ponderosa Pine (*pinus ponderosa*), Jeffrey Pine (*pinus jeffreyi*), Sugar Pine (*pinus*
12 *lambertiana*), White Fir (*abies concolor*), Incense Cedar (*libocedrus decurrens*), Coast Live
13 Oak (*quercus agrifolia*), Black Oak (*Quercus kelloggii*) and Engelman Oak (*quercus*
14 *engelmannii*).

15 **III. BARK BEETLE PROJECT TEAM**

16 As illustrated on the maps in Attachment A, SDG&E has over 325 miles of
17 overhead distribution lines serving customers throughout the Bark Beetle-affected areas
18 where thousands of dead, dying and diseased trees required removal. A team of SDG&E
19 employees was assembled to work on this project, which included project scoping, supply
20 management, contract administration, community relations and other associated activities.
21 The team was composed of existing employees from various departments, including;
22 Vegetation Management, Supply Management, Construction Contracting, Regulatory

1 Affairs and Land Management. The project was managed with existing SDG&E
2 employees and no internal labor costs were charged to the CEMA.

3 In addition to SDG&E, there are numerous agencies and organizations involved in
4 addressing this enormous and complex problem. Representatives from SDG&E's
5 Vegetation Management Program initiated a meeting with the California Department of
6 Forestry and Fire Protection (CDF) and various other stakeholders on May 14, 2003. The
7 purpose of the meeting was to share ideas about how best to address the tree mortality
8 problem, establish priority areas, develop common work standards and coordinate the
9 efforts of the organizations involved with removing trees in the affected areas. In addition
10 to SDG&E and CDF, this group of organizations includes; the United States Department of
11 Agriculture (USDA) Forest Service, California State Parks, San Diego Fire Safe Councils,
12 Natural Resource Conservation District, Julian and Palomar fire departments, Bureau of
13 Land Management, Asplundh Tree Expert Company, Davey Tree Surgery, Bureau of
14 Indian Affairs, representatives from the San Diego County Supervisor Dianne Jacob's
15 Office, San Diego County Department of Planning and Land Use, San Diego County
16 Parks, San Diego County Department of Public Works, San Diego County Roads, San
17 Diego County Office of Emergency Services, American Red Cross, People for Trees, San
18 Diego Air Pollution Control District, California Transportation Department, San Diego
19 County Sheriff, California Highway Patrol, US Fish & Wildlife Service and various other
20 private companies and public agencies.

21 As a result of the initial meeting on May 14, 2003, a formal organization with an
22 Incident Command System (ICS) structure, the San Diego Forest Area Safety Taskforce
23 (FAST) was created. The mission of the San Diego Forest Area Safety Taskforce is to

1 promote the protection of life and property, and to promote the restoration of forest health.
 2 FAST meetings have been held monthly since May of 2003 and are facilitated by the
 3 California Department of Forestry & Fire Protection (CDF). Sub-committees made up of a
 4 cross-section of the FAST organizations were formed to work on specific efforts
 5 determined by the group to be a priority (see Table 1.0 below).

6 **SAN DIEGO FOREST AREA SAFETY TASKFORCE SUBCOMMITTEES**
 7 **TABLE 1.0**
 8

<u>SUB-COMMITTEE NAME</u>	<u>CHAIR PERSON</u>	<u>ORGANIZATION</u>
Evacuation and Community Protection	John Wiejorek	County of San Diego OES
Forest Health and Restoration	Bryan Petit	Natural Resource Conservation Service
Legislative Outreach	Tina Terrell	US Forest Service
Public Education and Outreach	Joan Winn	US Forest Service
Vegetation Reduction and Fuels Management	Tim Knowd	San Diego Gas & Electric Company

9 San Diego Gas & Electric's active involvement with the San Diego FAST,
 10 including the company's Vegetation Program Manager working as the Chair of the
 11 Vegetation Reduction and Fuels Management subcommittee, ensured the FAST group and
 12 the represented organizations were made aware of SDG&E's project strategy for felling
 13 and removing trees near overhead power lines. On June 7, 2006 the California Department
 14 of Forestry & Fire Protection (CDF) Unit Chief, Chuck Manor, issued San Diego Gas &
 15 Electric Company a letter of commendation (see Attachment B) for its efforts in removing
 16 hazardous trees around overhead power lines as well as the SDG&E employees
 17 involvement in the San Diego Forest Area Safety Taskforce (FAST).

18 **IV. BARK BEETLE PROJECT/SCHEDULE**

19 April 3, 2003 - August 30, 2004
 20 Inspection and Felling Work

1 The high level of tree mortality near overhead electric lines created a situation that
2 posed immediate wildfire hazard to the people and property in these communities served
3 by SDG&E. SDG&E's priority was to effectively eliminate the hazard created by dead
4 trees potentially falling into overhead power lines and igniting destructive wildfires.
5 SDG&E's initial approach was to employ the vegetation management companies under our
6 existing contractual agreements, experienced in similar efforts, to quickly mobilize
7 available local crews and resources. SDG&E immediately began a process to inventory
8 the dead, dying and diseased trees and commenced tree felling operations. This enabled
9 SDG&E to begin work immediately on the dead trees before they began to decompose and
10 become structurally unsound. Trees that have been standing dead for extended periods not
11 only would have created a more immediate fire hazard by falling into the overhead lines,
12 but may also become unsafe for a tree worker to climb during felling operations.

13 As the process to inventory dead, dying and diseased trees continued during the
14 early stages of the project in the summer of 2003, the tremendous scope of the effort
15 became clear. Local tree removal resources were limited so SDG&E issued a request to its
16 existing contractors for additional crews. Twenty (20) additional tree felling crews were
17 mobilized from Asplundh Tree Expert Company to continue the large scale tree removal.
18 These crews, brought in from outside of the area, were primarily responsible for mitigating
19 the immediate hazard of trees falling into the overhead electric lines and igniting wildfires.
20 The crews were directed to fell trees, or top them to a safe height. As of August 2004, a
21 total of 7,821 dead, dying or diseased trees were felled clear of SDG&E overhead lines.

22 As discussed in the testimony of Todd Cahill, the CPUC approved SDG&E's
23 request for recovery of \$5.9 million in Bark Beetle costs incurred during the period April

1 3, 2003 through August 31, 2004 via Commission Resolution E-3904. The Bark Beetle
2 CEMA costs for the April 3, 2003 through August 31, 2004 time period were recovered in
3 electric distribution rates over twelve months beginning in February, 2005.

4 September 1, 2004 - June 30, 2006
5 Inspection, Felling, and Clean-up Work

6 A Request for Proposal (RFP) was issued by SDG&E to thirteen (13) companies
7 for competitive bidding on the next phase of the Bark Beetle Project, which involved
8 biomass clean up operations for the 7,821 already felled trees as well as tree removal
9 services for additional tree mortality. Due to operating restrictions related to the California
10 Forest Practice Rules, environmental compliance and high fire conditions, SDG&E
11 solicited Time & Equipment (T&E) rates for the biomass site clean up, grinding operations
12 and tree felling operations. Transportation of biomass material from the grinding yard to
13 an end source would be compensated on a unit price per ton basis. Bidder proposals were
14 evaluated based on the following criteria; lowest total cost, safety & fire prevention plan,
15 effectiveness of solutions, thoroughness of proposal, qualifications of personnel, and
16 company strength & experience. Asplundh Tree Expert Company was the successful
17 bidder and was awarded the contract on August 3, 2004.

18 On September 1, 2004 SDG&E biomass clean up operations commenced and
19 additional tree felling continued in areas where mortality persisted. For each location
20 where clean up of downed trees was necessary, a specific site review was required to
21 determine the following; work prescription, identification of environmental concerns and
22 mitigation, equipment requirements, and accessibility. Once the site review was
23 completed, crews and equipment were mobilized and clean up operations were performed.
24 Environmental monitors were commonly required to be on site to ensure compliance with

1 regulations. During high fire conditions, the United States Department of Agriculture
 2 (USDA) Forest Service and the California Department of Forestry & Fire Protection
 3 (CDF) would also declare fire prevention related work restrictions using the Project
 4 Activity Levels system developed by the Forest Service. This would commonly require
 5 tree removal operations to shut down by 1:00pm, limiting contractor productivity.
 6 Additionally during wet weather, contractor tree removal and clean up operations would be
 7 suspended due to environmental concerns.

8 Between September 1, 2004 and October 31, 2005 there were an additional 4,530
 9 trees felled, 29,765 tons of biomass transported from the various job sites to the grinding
 10 yard, and 9,750 tons of woods chips produced. Biomass clean-up is complete on trees
 11 felled to date.

12 Attachment C includes photographs of the Bark Beetle-related tree removal work.

13 **V. BARK BEETLE COSTS**

14 Incremental costs of \$8.165 million were recorded in Bark Beetle Catastrophic
 15 Event Memorandum Account (CEMA) during the period September 1, 2004 through June
 16 30, 2006. Table 2.0 below summarizes the incremental costs.

17 **BARK BEETLE COSTS BY WORK TYPE**
 18 **TABLE 2.0**

<u>Work Type</u>	<u>Amount</u>
Pre-Inspection	\$190,999
Environmental Services	\$763,986
Tree Felling	\$1,715,427
Wood/Biomass Removal	\$3,519,953
Grinding Operations	\$1,879,506
Biomass Transportation	\$95,509
Total Bark Beetle Expenses for the period 9/1/04 - 6/30-06	<u>\$8,165,380</u>

1 Costs Recorded in SDG&E's Bark Beetle CEMA are separate from those recorded
2 in the Tree Trimming Balancing Account (TTBA) for normal vegetation management
3 activities. The Bark Beetle-related tree removal activities were situated around
4 distribution facilities only and therefore are all CPUC jurisdictional. No transmission-
5 related costs were incurred. SDG&E has not incurred any Bark Beetle capital-related
6 costs. As stated above, no internal labor costs were charged to the Bark Beetle CEMA
7 account.

8 **VI. CONCLUSION**

9 SDG&E's strategy of promptly and continuously scoping the work, mobilizing the
10 necessary resources and partnering with the other lead agencies was a sound approach to
11 addressing the Bark Beetle infestation emergency. As of the time of this filing SDG&E
12 believes that, through a comprehensive tree removal effort, it has successfully mitigated
13 the problem of dead and dying trees located near overhead electric lines in the Bark
14 Beetle-affected areas. Tree mortality in the affected mountain areas of San Diego County
15 where overhead lines exist has returned to more normal levels. SDG&E, through its
16 Vegetation Management Program, will continue to regularly inspect the areas near the
17 overhead electric system for additional tree mortality due to Bark Beetle infestation.
18 Unless future tree mortality increases beyond normal levels, SDG&E expects to recover
19 costs for on-going tree removal through the existing Tree Trimming Balancing Account
20 (TTBA).

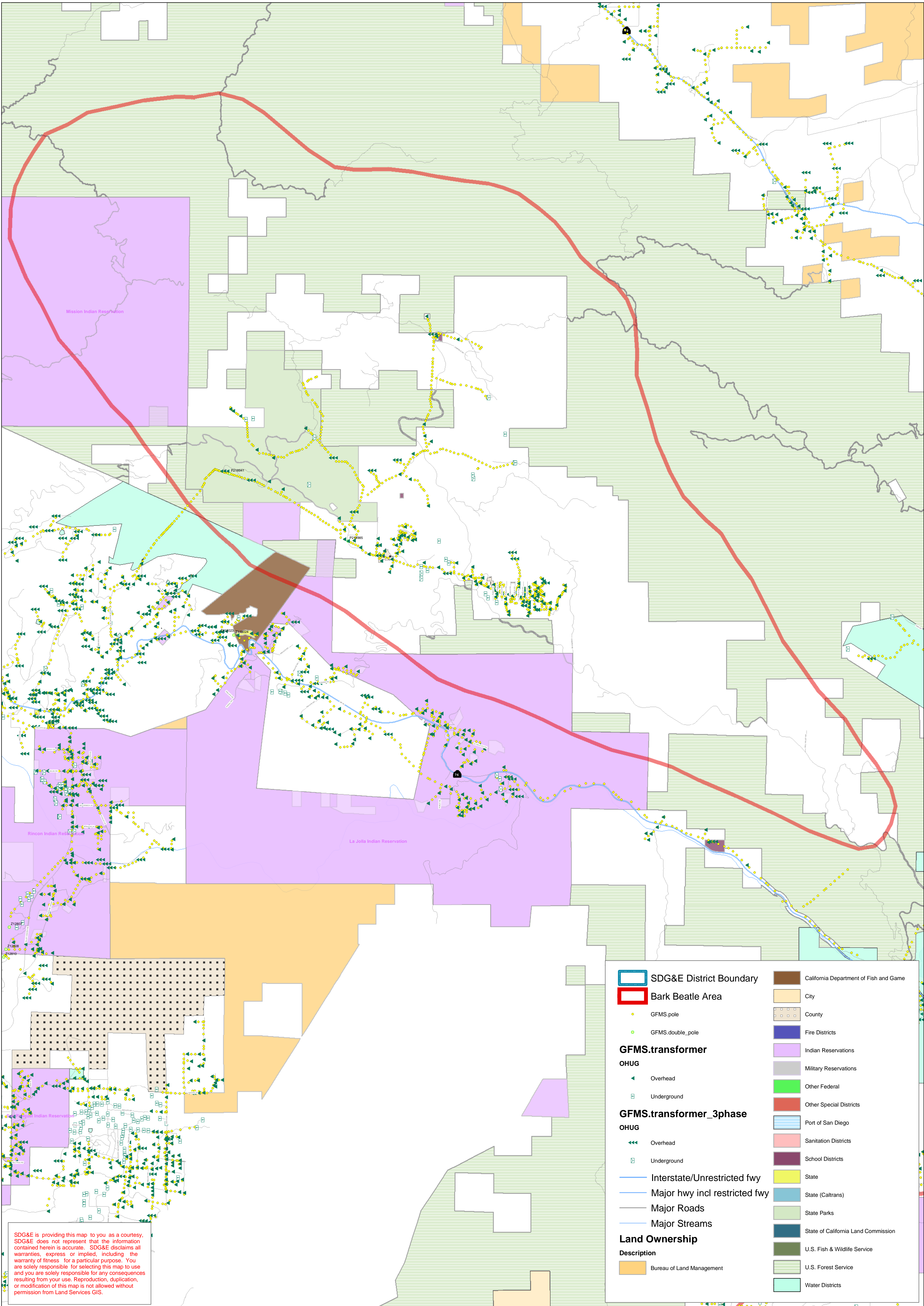
21 This concludes my testimony.

1 **QUALIFICATIONS**

2 My name is Timothy M. Knowd and I am employed by San Diego Gas and Electric
3 (SDG&E). My business address is 8315 Century Park Court, San Diego, California
4 92123. I am currently Program Manager of the Vegetation Management Program within
5 the Construction Services department of SDG&E. My primary responsibilities include
6 maintaining vegetation clear of the company's electrical facilities for safety, system
7 reliability and compliance with applicable rules and regulations. Major duties include;
8 developing, implementing and managing vegetation management contracts, monitoring
9 contractor performance, budget management, and developing and writing program
10 standards. I have been working in the Vegetation Program Manager position since August
11 of 2000.

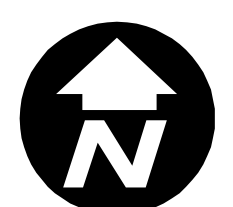
12 I earned my Bachelor of Science degree in Forestry & Natural Resources from
13 California Polytechnic State University in 1994. I started working in utility vegetation
14 management in 1995 as a Utility Forester with Environmental Consultants, Inc. and was
15 hired by SDG&E in 1998 as an Area Forester. In 1999, I earned the System Forester
16 position, which lasted approximately 1 ½ years before moving into my current position as
17 Vegetation Program Manager.

Attachment A
Maps of SDG&E Bark Beetle Areas

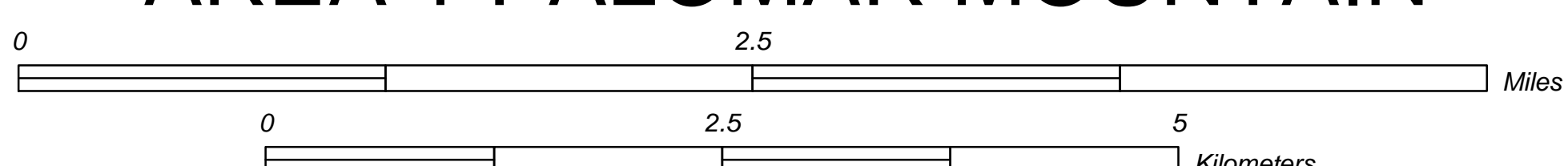


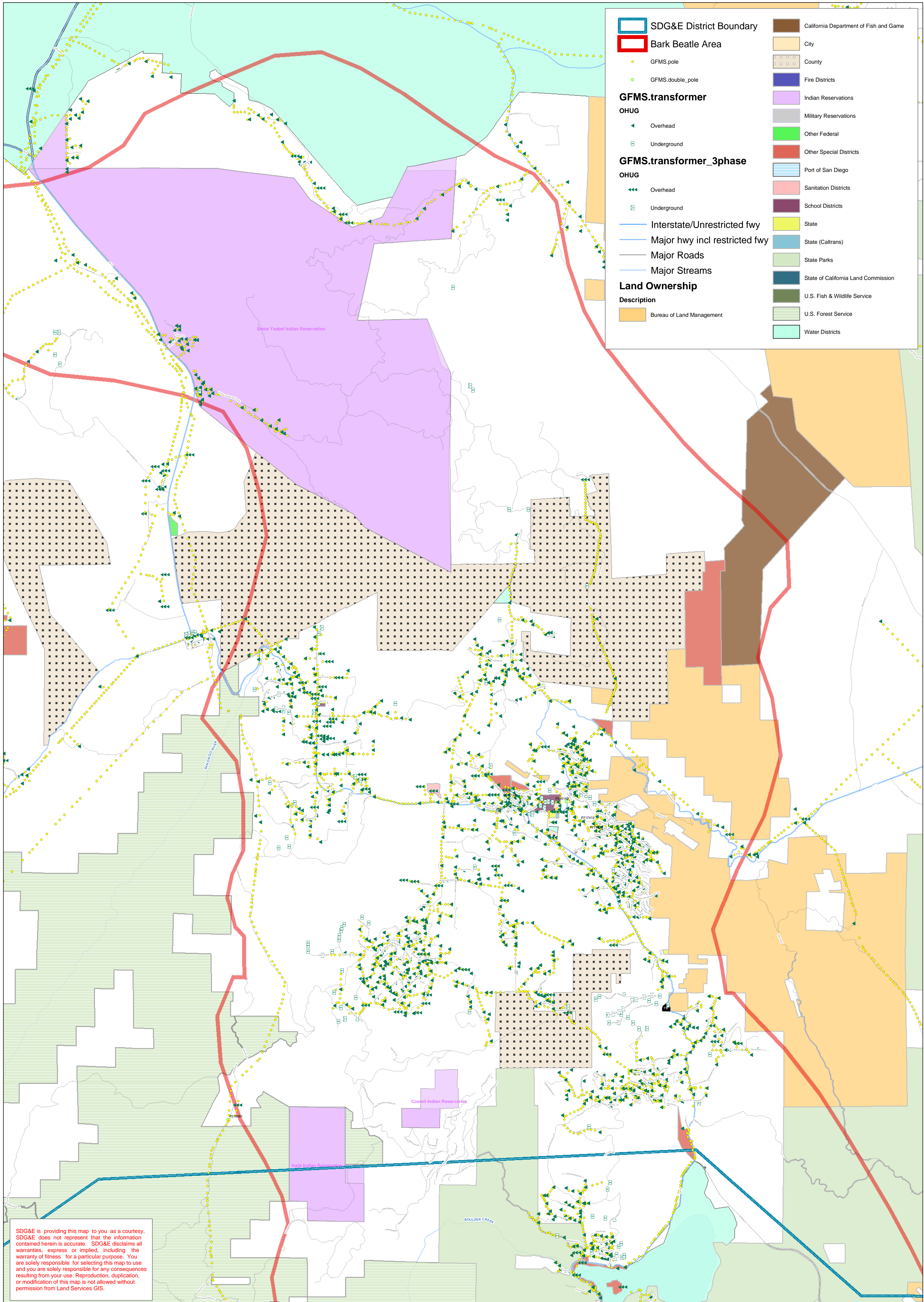
SDG&E is providing this map to you as a courtesy. SDG&E does not represent that the information contained herein is accurate. SDG&E disclaims all warranties, express or implied, including the warranty of fitness for a particular purpose. You are solely responsible for selecting this map to use and you are solely responsible for any consequences resulting from your use. Reproduction, duplication, or modification of this map is not allowed without permission from Land Services GIS.

SDG&E District Boundary	California Department of Fish and Game
Bark Beetle Area	City
GFMS.pole	County
GFMS.double_pole	Fire Districts
GFMS.transformer	Indian Reservations
OHUG	Military Reservations
Overhead	Other Federal
Underground	Other Special Districts
GFMS.transformer_3phase	Port of San Diego
OHUG	Sanitation Districts
Overhead	School Districts
Underground	State
Interstate/Unrestricted fwy	State (Caltrans)
Major hwy incl restricted fwy	State Parks
Major Roads	State of California Land Commission
Major Streams	U.S. Fish & Wildlife Service
Land Ownership	U.S. Forest Service
Description	Water Districts
Bureau of Land Management	



AREA 1 PALOMAR MOUNTAIN



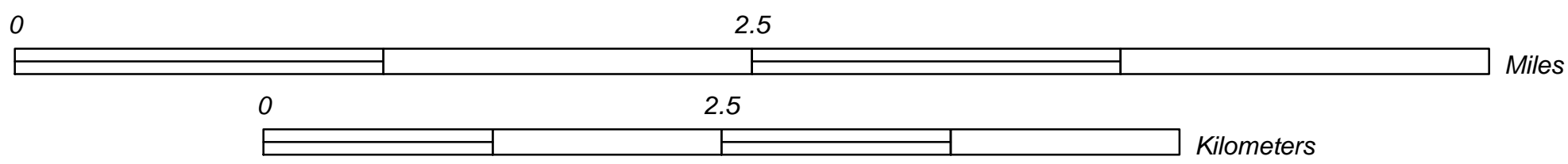


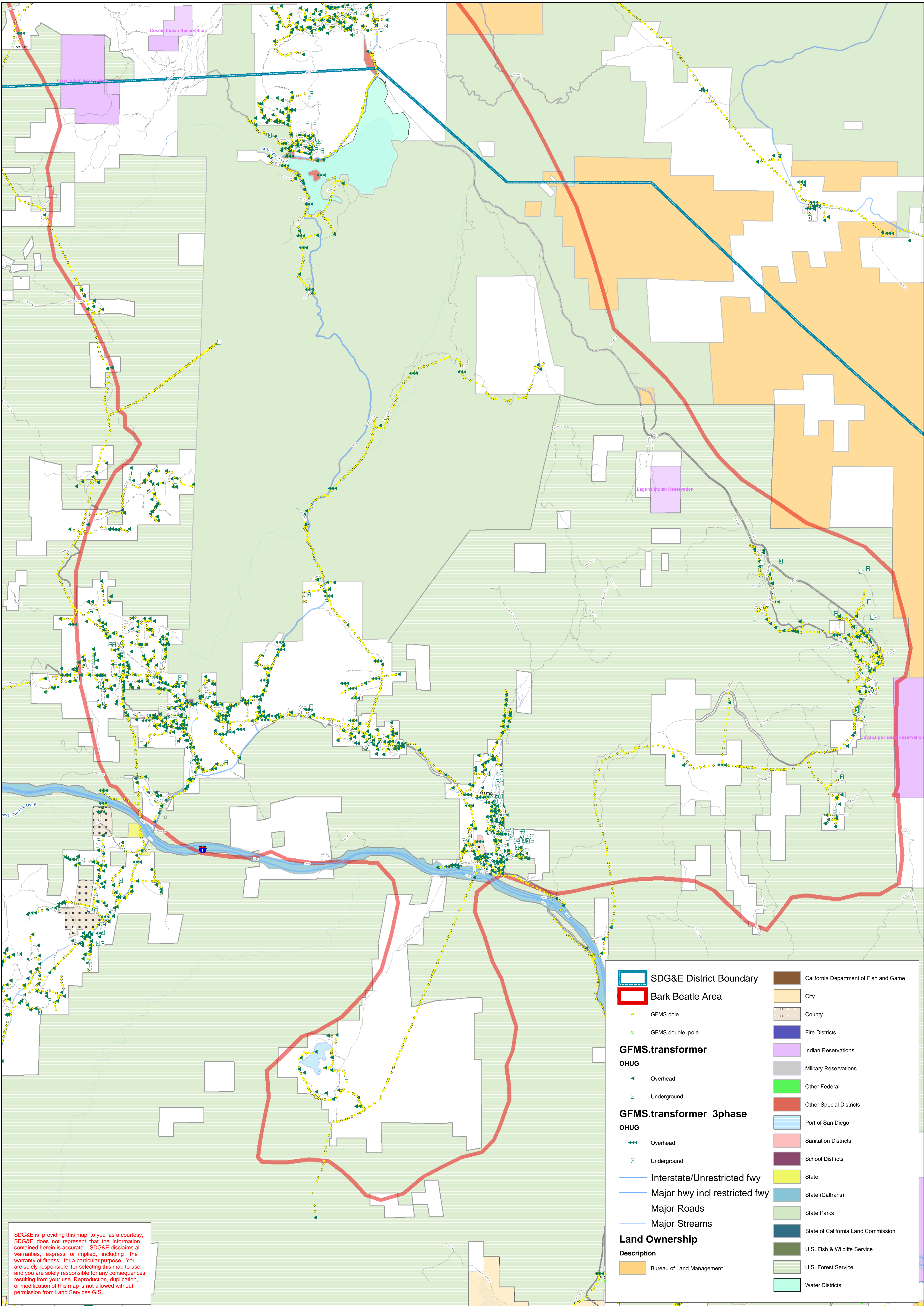
SDG&E District Boundary	California Department of Fish and Game
Bark Beetle Area	City
GFMS.pole	County
GFMS.double_pole	Fire Districts
GFMS.transformer	Indian Reservations
OHUG	Military Reservations
Overhead	Other Federal
Underground	Other Special Districts
GFMS.transformer_3phase	Port of San Diego
OHUG	Sanitation Districts
Overhead	School Districts
Underground	State
Interstate/Unrestricted fwy	State (Caltrans)
Major hwy incl restricted fwy	State Parks
Major Roads	State of California Land Commission
Major Streams	U.S. Fish & Wildlife Service
Land Ownership	U.S. Forest Service
Description	Water Districts
Bureau of Land Management	

SDG&E is providing this map to you as a courtesy. SDG&E does not represent that the information contained herein is accurate. SDG&E disclaims all warranties, express or implied, including the warranty of fitness for a particular purpose. You are solely responsible for selecting this map to use and you are solely responsible for any consequences resulting from your use. Reproduction, duplication, or modification of this map is not allowed without permission from Land Services GIS.



AREA 2 GREATER JULIAN

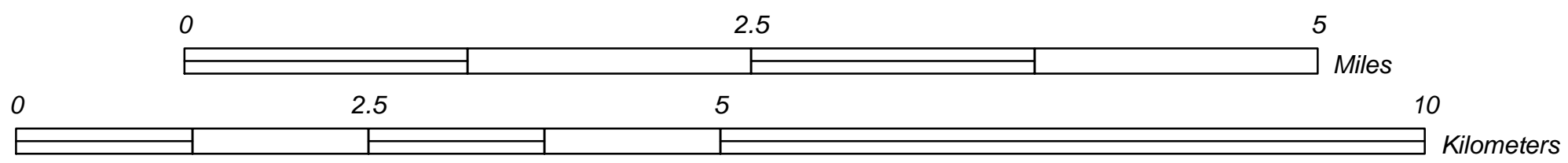
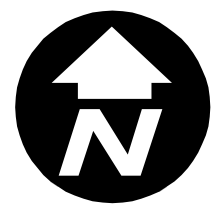




SDG&E is providing this map to you as a courtesy. SDG&E does not represent that the information contained herein is accurate. SDG&E disclaims all warranties, express or implied, including the warranty of fitness for a particular purpose. You are solely responsible for selecting this map to use and you are solely responsible for any consequences resulting from your use. Reproduction, duplication, or modification of this map is not allowed without permission from Land Services GIS.

SDG&E District Boundary	California Department of Fish and Game
Bark Beetle Area	City
GFMS.pole	County
GFMS.double_pole	Fire Districts
GFMS.transformer	Indian Reservations
OHUG	Military Reservations
Overhead	Other Federal
Underground	Other Special Districts
GFMS.transformer_3phase	Port of San Diego
OHUG	Sanitation Districts
Overhead	School Districts
Underground	State
Interstate/Unrestricted fwy	State (Caltrans)
Major hwy incl restricted fwy	State Parks
Major Roads	State of California Land Commission
Major Streams	U.S. Fish & Wildlife Service
Land Ownership	U.S. Forest Service
Description	Water Districts
Bureau of Land Management	

AREA 3 CUYAMACA / MOUNT LAGUNA



Attachment B
California Department of Forestry & Fire Protection(CDF)
Letter of Commendation

DEPARTMENT OF FORESTRY AND FIRE PROTECTION

P.O. Box 944246
SACRAMENTO, CA 94244-2460
Website: www.fire.ca.gov
(916) 653-7772



June 7, 2006

San Diego Gas & Electric Company
Attention: Mike Hale
8315 Century Park Court, Suite 22C
San Diego, CA 92123-1550

Dear Mr. Mike Hale,

This correspondence is being sent to you in acknowledgement of San Diego Gas & Electric Company's (SDG&E) extensive efforts in removing dead and dying trees around overhead electric lines throughout the mountain areas of the county since spring of 2003. In addition, SDG&E employees have participated as key members of the multi-agency San Diego Forest Area Safety Taskforce (FAST), an organization working to mitigate the extreme fire hazard and safety concerns associated with dead trees and other vegetation within the affected areas of San Diego County.

In May of 2003, the California Department of Forestry and Fire Protection (CDF) was contacted by SDG&E to discuss issues related to extensive removal of dead and dying trees with potential to fall into overhead electric lines. SDG&E was planning to initiate tree felling and removal operations and it was agreed that further discussions with various other affected agencies and organizations was warranted.

On May 14, 2003 a meeting was held at the Yuima Municipal Water District office in Pauma Valley with representatives from various agencies, including; CDF, SDG&E, US Forest Service, Natural Resource Conservation Service, Bureau of Land Management, California State Parks, County of San Diego, US Fish & Wildlife Service, California Department of Fish & Game, the Fire Safe Council of San Diego and other stakeholders. Topics discussed during the meeting included; causes of increased tree mortality and future outlook, public safety and education, the need for mapping and prioritization of project areas, laws and regulations, funding needs, Governor Davis' Emergency Proclamation, and biomass solutions. The group agreed, based on the complexity of the problem and the number of agencies and organizations affected, that regular planning meetings should occur.

Based on this initial meeting, the San Diego Forest Area Safety Taskforce was formed and has met monthly from May 2003 to the present time. SDG&E's Vegetation Management Program Manager, Tim Knowd, has served as the Chair of the Fuels Reduction and Vegetation Management Committee for over two and one half years. Tim not only made a point of regularly communicating SDG&E's project strategy and work schedule to the taskforce but he and his committee helped develop the FAST Project Priority Matrix based on key input from the responsible fire agencies. Additional SDG&E employees who were active participants in the FAST include; Bruce Taylor, Hal Mortier, Don Akau, and Ron Freeman. SDG&E contractors Asplundh Tree Expert Company, Davey Tree Surgery, and ECORP were also regular attendees of the monthly FAST meetings.

The California Department of Forestry and Fire Protection would like to commend San Diego Gas & Electric Company for its work on the Forest Area Safety Taskforce and for its expeditious removal of dead trees that threatened to fall into power lines, mitigating the threat of destructive wildfire and making the San Diego mountain communities a safer place to live.

Sincerely,

A handwritten signature in black ink that reads "Charles R. Maner".

Charles R. Maner
Unit Chief, San Diego Unit

CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY FOR TIPS AND INFORMATION VISIT "FLY YOUR POWER" AT WWW.CA.GOV

Attachment C
Bark Beetle Tree Removal Project Photos



Figure 1.0 Dead Pine Trees on Laguna Mountain



Figure 2.0 Dead Pine and Fir Trees on Palomar Mountain



Figure 3.0 Asplundh Tree Worker Removing Dead Pine Tree



Figure 4.0 Dead Tree Grinding Operations