

Soquel Demonstration State Forest

2011 Annual Report



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Forest Manager

State of California
DEPARTMENT OF FORESTRY AND FIRE PROTECTION
Northern Region
San Mateo-Santa Cruz Unit

Santa Cruz County



SUMMARY

2011 was a landmark year with several significant events occurring related to Soquel Demonstration State Forest. The Rim Timber Sale was sold and over 1.2 million board feet was removed on the first timber harvesting operation at SDSF since 1998. A new Forest Manager was hired at SDSF, filling the vacancy left since the retirement of Forest Manager, Thomas Sutfin, in June 2009. The Soquel Forest Advisory Committee was reconvened which had not met on a regular basis since 1997. New members were appointed to the Advisory Committee and began having regular meetings to help guide and approve the General Forest Management Plan update.

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ADMINISTRATION

For most of 2011, Rich Sampson, Unit Forester, continued to be the Acting Soquel Demonstration State Forest (SDSF) Manager. He filled in part-time in addition to his other duties for the San Mateo-Santa Cruz Unit (CZU). The Forest Manager position, which had remained vacant to achieve salary savings since Thomas Sutfin retired in July 2009, was filled on October 1st. Angela Bernheisel was hired as the new Forest Manager after working for CAL FIRE for 11 years in Forest Practice and the Vegetation Management Program (VMP) in CZU. Previously Angela worked as a private consulting forester in the Santa Cruz Mountains with Edward Tunheim. She is very enthused about returning to SDSF as the Forest Manager where she served as a Forestry Aide for one season after graduation from UC Berkeley in 1994. After beginning as the SDSF Forest Manager she continued to spend a portion of her work time on VMP grants, projects and reports. The VMP Coordinator position was filled in late February 2012.

Other staff at SDSF included: Assistant Forest Manager, Ed Orre; half-time Office Technician, Anna Cameron; and Forestry Aides, Julie Dufresne, who worked until February 4th and was rehired June 27th, and Elizabeth Lucas who returned for her third year as a Forestry Aide on July 11th.



SDSF Staff (left to right): Assistant Manager Ed Orre, Forestry Aide Julie Dufresne, and Office Technician Anna Cameron, Forestry Aide Elizabeth Lucas and new Forest Manager Angela Bernheisel

Beginning on November 9th, Orre reported to jury duty and was selected as a juror to serve on a trial which continued for five weeks. One Forestry Aide was injured while working and was on modified work duty for six weeks.

In April 2011, California Department of Forestry and Fire Protection (CAL FIRE) Director Ken Pimlott, appointed committee members to reconvene the Soquel Forest Advisory Committee. The legislation which created SDSF (AB 1965 and PRC Sections 4660-4664) called for the establishment of an advisory committee to assist with the development of SDSF's General Forest

Management Plan (GFMP) and to assist CAL FIRE in planning future management of SDSF. Soquel is the only DSF required by legislation to have an Advisory Committee. The Advisory Committee will provide input to CAL FIRE and the Board of Forestry and Fire Protection on the General Forest Management Plan update. On August 29th, the Committee held its first meeting which included a tour of the Forest. All nine members were in attendance as well as CAL FIRE representatives from the DSF Program in Sacramento, Region and Unit Headquarters. Four members of the public also attended. Two more meetings were held, one on October 3rd (seven of the nine members were present, plus seven members of the public) and the other on November 7th (eight of the nine members attended plus two members of the public). Meetings were held in the Scotts Valley City Council Chambers at City Hall. At the October meeting a decision was made by the committee for members to provide comments on the General Forest Management Plan (GFMP) and for CAL FIRE staff to incorporate updates and changes into a new draft. The next scheduled Advisory Committee meeting is April 2, 2012 when the updated draft will be available for review.



SDSF 2011 Advisory Committee Members (left to right): Terris Kastner (DFG), Steve Butler (Resource Conservation District of Santa Cruz County), Steve Staub (Chairman and Local RPF), Larry Serpa (The Nature Conservancy), Tim Hyland (California State Parks), Patty Ciesla (Stewards of Soquel Forest), Patricia Marland (Neighbor Representative), Eric Huff (Board of Forestry Representative). Not pictured: Donna Bradford (Santa Cruz County) and Chris Spohrer (California State Parks alternate)

Fire Crews from the Ben Lomond Conservation Camp worked with SDSF staff to burn piles, remove invasive plants, work on the grounds around the Soquel Forest Fire Station and the SDSF Headquarters, and clear roads and trails after a large wind event. Forest volunteers also assisted with clearing roads and trails of fallen trees and branches after winter storms.

Forestry Aides Dufresne and Lucas inventoried culverts along Hihn's Mill Road and worked with a contractor to clear repair and replace culverts along SDSF roads. SDSF staff also cleaned and prepared other culverts, waterbars and trash racks in preparation for winter.

CAL FIRE Surveyors from Technical Services, Dan Gregory and Jeff Gawronski, completed a survey for the joint SDSF Office and Soquel Forest Fire Station grounds and submitted final reports to the Santa Cruz County Recorder's office. This work, begun in 2010, was performed for the State's Capital Improvement Plan.

Bernheisel worked with CZU Unit Pre-Fire Planner, John Martinez, on new maps of SDSF and with CAL FIRE GIS Specialist, Shawn Headley, in early 2012, to begin updating maps for the General Forest Management Plan.

The total precipitation recorded at the rain gauge in the Forest for the 2011 calendar year was 32.49 inches. Above average rainfall was recorded in March (11.4 inches) and although Forest roads remained open, most were too wet to drive during this time. A large storm in late March produced a mudslide which blocked Highland Way in both directions. This landslide was at the site of a previous large landslide. The County Public Works received an emergency grant to pay for clearing Highland Way, and this work was completed in mid-June.

Forest staff participated in a VMP burn at Big Basin State Park in October. Bernheisel coordinated the four-day, 460-acre, VMP burn with cooperation from multiple agencies, and worked extensively on the VMP coordination in addition to her duties as new Forest Manager. Lucas and Dufresne accompanied Bernheisel on the burn for incident and prescribed burn training. Orre served as a Field Observer for the VMP. On the fifth day, the VMP was in patrol status and was turned over to State Parks.

Forest Manager Bernheisel met with Donald Barr, a private landowner, to discuss the possibility of donating a parcel of his land to the State. This property has good access from Summit Road and provides opportunities for high-value education. It also could be a potential step closer to having a continuous hiking trail from the Summit to the Sea in this part of the county.

Two old computers were replaced at the Forest office and multiple maintenance repairs were performed on State Forest vehicles. The Forest office was cleaned and files from the last 20 years were sorted and organized. Dufresne and Lucas painted the office ceiling tiles which had water damage stains from a roof leak several years ago. The generator at the State Forest office and Fire Station was serviced in November and was found to need several repairs. Repairs to the generator were made in February 2012.

TRAINING

Orre, Dufresne, Lucas and a Forest volunteer completed the annual sponsor training at the Ben Lomond Conservation Camp. This training is required by CAL FIRE and the Department of Corrections and Rehabilitation for all personnel who work as sponsors with fire crews on projects.

Dufresne and Lucas completed the Adult CPR AED First Aid training at the American Red Cross. Bernheisel provided safety and orientation training for Dufresne and Lucas on the operation of the Santa Cruz County Fire Chief's Chipper.

Orre attended Emergency Medical Responder (First Responder) training to reinstate his certification. Bernheisel and Orre completed the CAL FIRE/CLFA Archaeology refresher course to maintain their Certified Archaeological Surveyor qualifications.

The Central Fire District had planned to do training on the Forest in May, as they had in 2010, but canceled due to weather. Plans were discussed for using the Forest for wildland fire engine driver training.

Monterey Bay Search Dogs (MBSD) conducted several daytime search-dog training activities in the Forest. MBSD is affiliated with the Santa Cruz Sheriff's Department Search and

Rescue Team and the California Task Force 3 Urban Search and Rescue team. Monterey County Search and Rescue Dogs, Inc. met with Forest staff to determine training opportunities for their group.

TIMBER MANAGEMENT

Timber operations for the Rim Timber Harvesting Plan (1-09-107-SCR) started on June 23, 2011 following a pre-work meeting with the purchaser, Sierra Pacific Industries (SPI) and the Licensed Timber Operator, Ken Pelphrey. Old growth assessment was completed for the Rim THP area by Dufresne, Lucas and Orre.

Hauling of timber began on July 27th on the Rim timber sale. As of the October 15th winter shutdown, a total of 1,255 MBF of redwood and 6.34 MBF of Douglas-fir had been removed for a total revenue of \$475,942.35. Harvesting operations were not completed prior to the winter period, so the contract for Rim was extended to October 14th, 2012. Erosion control, maintenance, and inspections of the Rim Timber Sale were conducted by SDSF staff in the fall and winter.

The Central Coast Regional Quality Control Board (CCRWQCB) determined that the Rim THP is subject to a General Conditional Waiver of Water Discharge requirements. This General Waiver requires SDSF, as Timberland Owner, to conduct specific monitoring and reporting activity which was ongoing throughout the winter.

CAL FIRE Forester I, Jonathan Pangburn, from San Benito-Monterey Unit completed two Forest Practice inspections for the Rim THP. The second inspection included Terris Kastner of DFG. The inspection consisted of reviewing preparations for the winter period and mitigations on Hihn's Mill Road. No problems were identified.

A check scale was completed by CAL FIRE Forester I Tim Meyers and Forestry Assistant II Andy Whitlock from the Mendocino Unit. No significant discrepancies were identified.



First log load- from Rim Timber Sale- on SDSF since 1998

Orre worked with Greg Waas, the Unit's Water and Sewage Treatment Plant Operator (WASPO), to design a water source at neighboring Camp Loma to be used during operations, as well as for fire suppression. Two Ben Lomond skilled inmates helped with installation of the water meter and plumbing system at Camp Loma.

Local RPF and wildlife biologist, Matt Greene, conducted a Raptor Survey for both the Fern Gulch and Rim THP areas.

A pre-bid tour was conducted for potential bidders for the Fern Gulch Timber Sale on July 15th and three mills participated. No bids were received on the bid opening date due to several factors cited by potential bidders. These factors included minimum bid, difficulty with moving Large Woody Debris (LWD) rootwads, bridge issues and time frames for conducting work. The project was subsequently re-structured to address bidder concerns. Bernheisel completed a Major Amendment to the THP with assistance from Michael Huyette of CGS to change Fern Gulch Road from a seasonal road to a temporary road. Requirements for large logs and root wads to come from the THP area and transported to the LWD project and stream bank stabilization site were also modified to make the THP more feasible.

Orre consulted with both a bridge engineer and a bridge contractor about specifications for a proposed bridge in the Fern Gulch Timber Sale area. Orre also met with a Cal Trans bridge inspector to examine Hihn's Bridge. This was its first inspection since it was installed in 1998. No recommendations or restrictions were noted.

Technical Services Senior Civil Engineer, Donald Clark, provided a design and drawings to upgrade the existing railcar bridge at the Highland Way entrance. This bridge work is planned to be included in the Fern Gulch timber sale.

A 2006 stream bank failure which threatened an appurtenant road was a major issue during review of the Fern Gulch THP. This stream bank failure suffered minor additional bank loss in March, which resulted in a field visit with Michael Huyette, CGS, Jon Ambrose, NMFS, and Terris Kastner, DFG. The repair of this site has been combined with the Large Woody Debris Project to be implemented in 2012.

Five firewood permits (Class 1 Timber Sales) were issued in 2011 for a total of 17 cords and \$340 in revenue. In 2011 the price per cord was increased from \$10 to \$20, with a three cord minimum. All firewood permits terminated on October 15th, the beginning of the winter period.

Posting of annual closure areas including the seasonal closures of THP areas was completed in May prior to the season's work.

Preparation for a new THP began on the western side of the Forest with the assistance from CAL FIRE Forester I, Scott Bullock from the San Mateo-Santa Cruz Unit.

RESEARCH

After several years of consultation with various fishery experts from NOAA Fisheries, the local Resource Conservation District, the Natural Resources Conservation Service, the California Geological Service, CAL FIRE Hydrologist Pete Cafferata and private consultants, plans were finalized for a stream bank stabilization and an in-stream habitat improvement project in conjunction with the Fern Gulch THP. The Large Woody Debris and Habitat Complexity Project has been planned to occur along the East Branch of Soquel Creek. Plans include installation of large wood along a 0.7 mile stretch of the East Branch of Soquel Creek in four, 200-foot reaches, and monitoring the large wood structures to document wood movement, aquatic habitat changes, and fish community changes. The purpose of the project is to contribute to the survival and recovery of federally and State endangered coho salmon in this watershed, as well as the survival

and recovery of federally threatened steelhead, by increasing habitat complexity and pool frequency. The Fern Gulch THP will be the source of most of the large wood for the project.



Large Woody Debris Pre-project photo monitoring site 1A

NOAA Fisheries staff conducted the annual electro-fishing survey in September to sample steelhead trout at five stream sites. One of these sites was also sampled in May and December. Nine volunteers and SDSF Staff assisted. Electro-fishing surveys began in 1993 in partnership with the California Department of Fish and Game. The 2011 survey data was analyzed and an annual report of the results was prepared.



NOAA Fisheries Staff and Volunteers sampled steelhead trout in the East Branch of Soquel Creek

Dufresne and Lucas installed new instream water temperature monitoring devices at six locations on SDSF in July (two months late due to delayed staff hiring). There were six stream

locations and one air temperature location on the Forest. The loggers were removed in October. One monitoring device was found to be defective and its data from the Amaya Creek site was irretrievable. The data was analyzed and an annual report of the results was prepared, an effort which continues the ongoing stream temperature monitoring which began in 1997.



Forestry Aide Elizabeth Lucas with data logger for monitoring seasonal water temperatures in primary streams

Dr. Brook Kraeger, a local hydrologist, civil engineer and SDSF neighbor, continued collecting data from a pair of rain and stream gauges located in a small watershed in the Forest. The purpose is to model the effects of forest management on runoff. The Rim timber sale logged in 2011 represents the first disturbance in this watershed since the study began in 1995.

SDSF staff worked with Pat Paramour, a master's student in Archaeology at Sonoma State University, to perform an archaeological survey and report for the Badger Spring picnic area on the Forest. SDSF staff also met with an archaeology professor from Cabrillo College to discuss possible future mutually beneficial opportunities.

Dr. Doug Schmidt from UC Berkeley continued research on two studies related to Sudden Oak Death. One study involves treating tanoak to resist infection from *Phytophthora ramorum* while the other investigates *P. ramorum* spore production from bay trees in an overstory canopy. He continued to collect data over the year and discussed possibility of expanding the scope of his research as funding allows.

The potential for a research study on California bay or Pacific madrone was examined with Dr. Gary Chastagner from Washington State University. No suitable site on SDSF was found, although a suitable site for a Pacific madrone research project was located at the Ben Lomond Conservation Camp with support from SDSF staff. This study is species wide and examines the various agents and situations that occur in the different ecoregions where the Pacific madrone occurs. The Ben Lomond Camp site represents the furthest south study location that expands from California to Oregon and Washington, representing four ecoregions. A 3-acre madrone plantation was established with seedlings representing 105 families in a common garden plot. The study is expected to expand to at least 10 other sites in other areas, representing a network of monitoring sites. Information about disease susceptibility within the range of madrone will be made available

as a result of this project. The Ben Lomond Camp site is expected to be measured and monitored for at least the next 10 years.



Madrone plantation research project at Ben Lomond Conservation Camp

A group of amateur herpetologists continued their reconnaissance-level survey of herpetofauna on SDSF in May, June and November. This effort represents the first formal survey for herps in the Forest. The group was led by CAL FIRE Captain Lawrence Erickson and sanctioned by the North American Field Herping Association (NAFHA). They had the first confirmed sighting of a Northern Pacific rattlesnake on SDSF plus some unusual pattern-less alligator lizards. So far to date, they have found two species of frogs, six species of salamanders and newts, three species of lizards and five species of snakes. They expect to find many more species on SDSF. The group will follow up with bi-annual surveys as part of a long-term assessment. Data collected from these surveys is being stored in NAFHA's Herpetological Education and Research Project database.

Dr. Janet Foley of UC Davis returned to the Forest with a graduate student in herpetology to study blood-borne disease reservoirs in ticks and small mammals and expanded her research to include herps. They consulted with Erickson on the location and distribution of a herpetofauna in the Forest, and the herp surveyors assisted with sample collection for Dr. Foley. Preliminary results indicated that 6% of small mammals tested positive for Lyme disease (*Borrelia burgdorferi*) and 18% tested positive for Anaplasmosis (*Anaplasma phagocytophilum*).

Dr. Chris Wilmers and Paul Houghtaling of UC Santa Cruz continued work on SDSF as part of the Santa Cruz Mountain Puma Project. This study monitored the distribution and behavior of local mountain lions using GPS telemetry collars. Bait stations and game cameras were used to locate un-collared lions in the area. Wet weather during the first part of the year hampered their efforts to detect lions in the Forest. The research team continued to receive GPS data from a female lion that was collared on the Forest in the fall of 2010. By March of 2011, this lion had established a territory outside of SDSF and in the fall was killed by a vehicle on Highway 17. In December, a previously collared male lion was caught on the Forest so it could be given a new GPS collar and was monitored through the rest of the year. His range included SDSF and

west of Highway 17 to Loch Lomond and occasionally as far away as Castle Rock State Park. SDSF and Soquel Fire Station provided storage of bait near the office for the Puma Project.

Dr. Pinliang Dong and two graduate students from the University of North Texas visited the Forest for three days in the winter to measure tree canopy characteristics related to USGS LiDAR coverage. This study hopes to correlate forest stand characteristics with LiDAR data.

Bernheisel has maintained her position as a member of the Jasper Ridge Coordinating Committee for the Stanford University, Jasper Ridge Biological Preserve. She also assisted with a VMP burn at the Jasper Ridge Global Change Experiment in June.

RECREATION

Mountain biking remained the primary recreational visitors to SDSF. The Highland Way parking area, which had been closed to vehicular traffic since November 2009, was reopened in July. SDSF staff continued to monitor potential environmental impacts at the Highland Way parking area and close the cable gate on the Highland Bridge when conditions warranted.

Highland Way was closed by the County after a mudslide blocked the road during a large storm in late March. This is the primary County road used to access the Forest. Visitors were forced to go through Corralitos to reach Highland Way from Eureka Canyon until the road was cleared in mid-June.

The Stewards of Soquel Forest, a non-profit organization supporting SDSF educational and recreational goals, continued to be the driving force behind trail maintenance. The website www.trailworkers.com continues to help with volunteer sign-ups, notifications and work day reports. The trail work days for 2011 are summarized in the table below:

Date	Location	# of Volunteers
January 9	Sawpit Trail	10
February 6	Braille Trail	13
March 13	Upper Braille Trail	9
April 2	Various	8
April 23	Various	13
August 14	Ridge Trail	7

Tractor Trail was closed to public use in June due to timber operations and will remain closed until the area is considered safe for public use. Forestry Aides Dufresne and Lucas posted bulletins about the trail closure on Forest sign boards and at local stores and bicycle shops. Only one trespass of the closure was observed during the summer. This success is attributed to the good relationship with the mountain bikers who use and support SDSF.

SDSF neighbor and volunteer, George Smith, continued Herculean efforts to single handedly eradicate French broom along roads in the Forest including Hihn's Mill Road, Amaya Creek Road and Sulphur Springs Road. George also attended Sponsor Training at Ben Lomond Camp and assisted with crew supervision of projects at SDSF.



SDSF Volunteer George Smith pulling French broom

SDSF issued three Special Use Permits for activities on SDSF. Permits were issued to BMC Racing Bikes for a media ride and to Dirt Series, a women's mountain biking skills clinic. Another permit was issued in October to a film crew that captured footage of mountain biking for Specialized Bicycle Components on Sawpit and Braille Trails. Bernheisel escorted the film crew and staff. Media Location Agreement and the Liability Release forms were coordinated through Sacramento HQ Communications and legal staff.

Specialized Bicycle Components Company continued to provide a portable toilet (with servicing) to SDSF visitors as a donation. This portable toilet is located at the Highland Way parking area.

In October, Dufresne and Lucas attended a Fungus Federation of Santa Cruz meeting to brief members on SDSF activities and to issue mushroom gathering permits to 51 members. A total of 84 personal-use mushroom gathering permits were issued for the year. Some permits were issued for couples and families. Requests for permits decreased during the dry weather in December.

A representative from the State Forest office in Sacramento, Maria Milanes-Murcia, visited the Forest in the spring to conduct an informal survey to determine the recreational value of the Forest for visitors. She also took a variety of pictures for use in poster board displays about SDSF.

CAL FIRE fire engines responded to four medical aid incidents for injured mountain bikers on SDSF. In February, a mountain biker injured his wrist on Tractor Trail. In August, a patient crashed on Braille Trail, declined Calstar helicopter transport, and left in an ambulance with a possible dislocated shoulder. In October, a biker slipped as he went over a log and fell over his handle bars near the top of Corral Trail. This patient also declined Calstar helicopter and ambulance and was transported by friends off the Forest with head and shoulder injuries plus multiple yellow-jacket bites. Later in October, another patient crashed on Sawpit Trail, injuring a shoulder, and was transported by ambulance to a local hospital.

EDUCATION

Forestry Aides Lucas and Dufresne represented CAL FIRE at the County Fair to provide education and outreach to the public at the CAL FIRE Fire Prevention Booth. They also gave forestry presentations to Soquel High School students in the Green Construction and the Horticulture classes.

Orre led an educational tour of SDSF and discussed forestry for 22 homeschooled students and their parents who were on a weekend educational retreat at a neighboring camp.

Orre, Lucas and Dufresne participated in the Forestry Challenge as instructors, proctors and judges. Meetings were held with representatives from Big Creek Lumber, Redwood Empire and Soquel High School to examine the potential for having the Forestry Challenge at SDSF in 2012. The Forestry Challenge is a competitive event for high school students in technical forestry and current forestry issues.



Forestry Aides Elizabeth Lucas and Julie Dufresne teaching at Soquel High School Green Construction class about forest products

LAW ENFORCEMENT

While the Forest Manager position was vacant, there was an increased workload for other Unit Law Enforcement (LE) and Forest Practice staff members. The Forest of Nisene Marks State Park gate on the upper Aptos Fire Road was found open and vandalized in January. Several times in 2011 the CAL FIRE lock on the Highland Way bridge gate was cut. Remnants from illegal weekend parties and camping were discovered at the Highland Way parking area a few times in 2011 and this is an ongoing problem. Bernheisel and Orre met with Unit Law Enforcement personnel to review enforcement issues on State lands. Unit Prevention Officers increased patrols of the Forest on weekends and evenings.

In addition to medical aid incidents, CAL FIRE fire engines provided emergency response for one search and rescue call for two lost mountain bikers of a family of four, one public assist for

keys locked in a vehicle on Highland Way, and one request to clear a tree from the main road in the Forest. The Search and Rescue request involved coordination from several agencies: County Sheriff's, State Parks, Loma Prieta Volunteers and CAL FIRE. The two missing family members were found after dark walking their bikes on Aptos Creek Fire Road. Illegal firewood cutting occurred intermittently at SDSF. No suspects have been identified.

2011 CALENDAR YEAR FINANCIAL SUMMARY FOR
SOQUEL DEMONSTRATION STATE FOREST

Expense Summary

1.	Capital investment in land, timber, buildings, and roads	\$0
2.	Operating expenses	
	Labor	\$224,570.00*
	Material	\$44,082.00
	<u>Property Tax</u>	<u>\$5,630.00</u>
	Total	\$ 274,282.00

Revenue Summary

3.	Gross revenues	
	(Class I Timber Sales)	\$340.00
	(Class III Timber Sales)	\$475,942.35

Net Operating Costs

	Total	\$274,282.00
		<u>-\$476,282.35</u>
		-\$202,000.35

* Personnel costs shown are for SDSF budgeted personnel. Other CAL FIRE personnel who have contributed work to SDSF in 2011 include Rich Sampson (CZU Unit Forester), John Martinez (CZU PreFire Planner), Scott Bullock (CZU Forester), Jake Dellamonica (CZU Prevention Battalion Chief), Jim Galassi (CZU Prevention Captain), Pete Cafferata (State Hydrologist) and Jill Butler (Region HQ Forester). California Geological Survey Certified Engineering Geologists Michael Huyette and Stephen Reynolds spent significant time developing the Large Woody Debris project specifications. Michael Huyette also spent significant time in 2011 providing technical assistance to SDSF staff to guide THP preparation and planning.

ANNUAL REPORT OF TIMBER CUT

Soquel Demonstration State Forest

From January 1, 2011 to December 31, 2011

COMMERCIAL SALES

FOREST PRODUCTS CONVERTIBLE TO BOARD FEET

Product (give dimensions)	Conversion Factor	# of Pieces, Cords, Lineal Feet, Etc	MBF	Value
MBF			1261.34	\$475,942.35
Cords				
Christmas Trees				
Posts (size)				
Shingle Bolts				
Poles (size)				
Grape Stakes				
Shakes				
TOTALS			1261.34	\$475,942.35

Miscellaneous Forest Products - Not Convertible to Board Feet

Kind	Unit	Quantity	Value
Firewood	cord	17	\$340.00
TOTALS			\$340.00

No Forest Products were cut for Department Use.

The Rim Timber Sale contract was extended until October 14, 2012.

Approved by Angela Bernheisel Signature *Angela Bernheisel*
 Title Forest Manager Date Submitted 4/12/2012

**ANNUAL STATE FOREST REPORT
STATISTICAL DATA** (attach to annual Narrative Report)

**SOQUEL STATE FOREST
Calendar Year 2011**

ADMINISTRATION

	<u>Processed</u>	(number)	<u>Pending</u>
Rights-of-Way	0		0
Leases	0		0
Trespass Cases	0		0

PROTECTION

Fires: Number of Fires: **0** Acres Burned: **0** Person-days Fire Patrol: 40
State Forest Campfire Permits Issued (number): **0**

Insects: Number of Trees Treated: 0 Number of Acres Covered: 0
Control Methods Used: none

Disease: Number of Acres Treated (Contract): 0 Disease Involved none
(State): 0 none

Number of Pest Detection Reports Submitted: 0

Hazard Reduction:

Snags Felled or Removed: 0 Acres: 0
Roadsides Treated (miles): 1
Slash Abated or Cleanup (acres treated): 1
Salvaged (board feet): 0

TIMBER STAND MANAGEMENT

Number of Timber Sales Class I: 5 Class III: 1

Timber Stand Improvements

Trees Pruned: Number of Trees: 0 Acres: 0

Thinning (acres): Acres: 0

Release (acres): Acres: 0

Planting Number of Trees: 0 Acres: 0

Seeding Number of Spots: 0 Acres: 0

Site Preparation for

Natural Seedfall (acres): 0 Planting (acres): 0 Seeding (acres): 0

State Method of Site Preparation: none

EXPERIMENTS & DEMONSTRATIONS

Approved Studies Worked on (list by titles):

2011 Steelhead Trout Population Report- Report submitted
Instream Temperature Monitoring 2011- Report submitted
SDSF Herpetology Survey 12/2010-12/2011- Report submitted
Santa Cruz Mountain Puma Project- Ongoing
Sudden Oak Death Studies (various)- Ongoing
Stream Flow Modeling Study - Ongoing
Blood-borne Disease Study through Spring 2011, Summary submitted

Approved Studies Worked on (list by titles):

Large Woody Debris Stream Habitat Restoration Project- Implementation planned for 2012
Soquel Creek Streambank Stabilization Project- Implementation planned for 2012

PERMANENT PLOTS

	<u>Size</u>	<u>Number</u>
Inventory Plots Established	1/5 acre	0
Other Plots Established	none	0
Plots Remeasured	none	0
Timber Cruised (acres):		

ENGINEERING

Corners Recovered or Set: 0
Miles of Line Run: 0
Miles of Boundary Surveyed and/or posted: 0
Boundary Surveyed and Posted to Date: 14%
Soquel Station and Forest Headquarters Parcel Boundary Surveyed: completed in 2010
Boundary of Highland Way Parking Area/Right-of-Way across Burch property: completed in 2010

CAPITAL IMPROVEMENTS

	New Construction	Total System (miles & tenths)	Amount Maintained
Main Timber Access Roads	0	8.1	8.1
Secondary (Spur) Timber Access Roads	0	5.0	5.0
Fire Protection Roads- (included above)	0	0	0
Firebreaks	0	1.0	1.0
Christmas Tree Roads/(included above)	0	0	0
Trails	0	8.6	8.6
Powerlines	0	0	0
Telephone Lines	0	0	0
		(number)	
Bridges	0	1 (Hihn)	1
Water Development	0	1 (East well)	0
Campgrounds	0	1	1
Camping Units	0	1	1
Picnic Grounds	0	4	4
Picnic Units- tables	0	9	9
Toilets	0	1	1
Storage Containers	0	2	2

Buildings Constructed (describe each): none

RECREATION

Primary Use	Day Use (Visitor Days) ESTIMATED	Overnight Use Campers	Camper Days
Camping ¹	0	0	0
Fishing ²	0	0	0
Hunting ³	0	0	0
Picnicking (see hiking)	0	0	0
Sightseeing (driving)	0	0	0
Hiking	2,680	0	0
Horseback Riding	20	0	0
Nature Walks (see hiking)	0	0	0
Swimming	0	0	0
Wintersports ⁴	0	0	0
Other (specify):			
Mushroom Collecting	300	0	0
Mountain Biking	14,000	0	0
Estimated TOTAL	17,000	0	0

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1 No campgrounds exist on SDSF. Camping is only allowed by special use agreement.

2 No fishing is allowed on SDSF by California Department of Fish and Game regulations.

3 Hunting and/or firearm use is only allowed on SDSF by special use agreement.

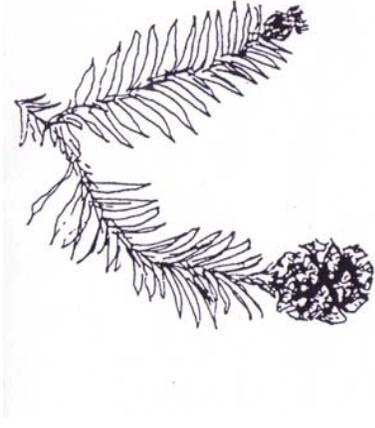
4 SDSF is not located in an area that normally receives snowfall.

FOREST RULES

Forest Rules are designed to protect the resources and visitors of SDSF. Please help by adhering to these rules:

- To protect wildlife, and as a courtesy to others, dogs should be on a leash at all times.
- As a safety precaution, firearms of any kind are not allowed in the Forest.
- Motorcycles or any other motorized vehicles are not permitted in the Forest.
- Respect private property by not trespassing onto adjacent private lands.
- California Fish and Game regulations prohibit fishing in the East Branch of Soquel Creek because of protection requirements.
- Smoking or fires of any kind are not allowed anywhere in the forest due to the associated fire risks.
- Day use recreation only (dawn to dusk). No camping is permitted.
- To help protect the Forest, horses and mountain bikes must stay on designated trails or roads.
- Please do not litter- pack out what you pack in.
- Practice Trail Etiquette. Trails and roads are for your convenience, so please be courteous to other forest users. Mountain bikers yield to horse riders and hikers, hikers yield to horse riders.
- Check signboards for any current closure areas.

SOQUEL DEMONSTRATION STATE FOREST



4750 Soquel-San Jose Road
Soquel, California 95073
(831) 475-8643

www.fire.ca.gov
www.demoforests.net

State of California
The Natural Resources Agency
Department of Forestry and
Fire Protection



SANTA CRUZ COUNTY

DEMONSTRATION STATE FORESTS

Demonstration State Forests (DSF) are parcels of timberlands purchased by the State of California and administered by the Department of Forestry and Fire Protection (CAL FIRE). These forests are used primarily for the demonstration of sustained-yield timber management, education, research and recreation.

The DSF are healthy, active, living forests providing a variety of benefits. The forests' multiple uses conserve and protect wildlife, fisheries, vegetation, soil, watershed and aesthetic values.

SOQUEL DEMONSTRATION STATE FOREST

Soquel Demonstration State Forest (SDSF), dedicated in 1990, is the first state forest to be added to the system since 1949. The Forest is located along the East Branch of Soquel Creek and includes portions of Amaya Creek and Fern Gulch Creek. It contains nearly 2700 acres of redwood, mixed hardwoods, riparian and chaparral ecosystems.

The State Forest is geologically active. The San Andreas and Zayante Faults pass through the property. The epicenter of the 1989 Loma Prieta earthquake is approximately 2 miles south of the Forest, in the Forest of Nisene Marks State Park.

Associated with the Forest's geologic activity are some natural springs found in closed depressions, known as sag ponds.

The SDSF is unique because it is the only State Forest located close to large urban areas (the metropolitan centers of San Francisco and Monterey Bay areas). Its proximity to these larger population centers provides excellent opportunities for "hands on" forestry education and outdoor recreation. It also demonstrates a "working forest" to the public.

SDSF GOALS

- Restore and enhance the natural resources within the Forest, including watershed protection;
- Provide public recreational uses that are consistent with protection of SDSF;
- Develop a forestry education program for the public, schools and interested organizations;
- Demonstrate sustained-yield timber harvesting sufficient to cover forest operations and management costs;
- Protect old-growth redwood trees;
- Research the benefits and risks of forest operations close to urban areas.

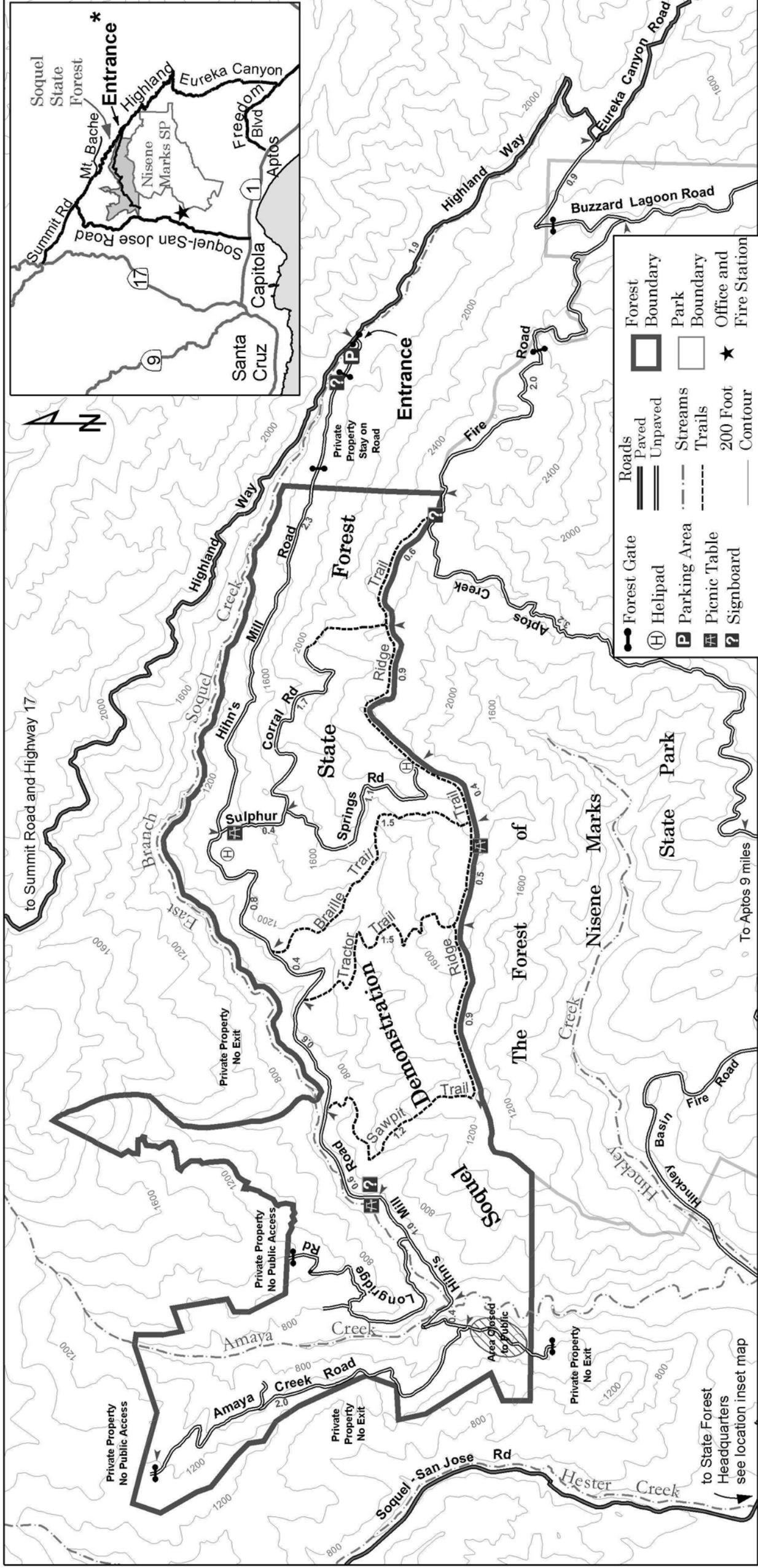
SAFETY

The Soquel Demonstration State Forest covers rugged terrain, in a fairly inaccessible area. Please be safety-conscious at all times. Travel with others whenever possible and let someone know of your plans.

There is no developed water source in the Forest so please bring your own drinking water with you.

CAUTION: Poison oak and ticks are common throughout the Forest.

Soquel Demonstration State Forest



- | | | | | | |
|--|--------------|--|---------------|--|---------------------------|
| | Forest Gate | | Roads Paved | | Forest Boundary |
| | Helpad | | Roads Unpaved | | Park Boundary |
| | Parking Area | | Streams | | Office and Fire Station |
| | Picnic Table | | Trails | | 200 Foot Contour Interval |
| | Signboard | | | | |

Scale 1:32,000 at 8 1/2 x 14
 Revised August 2003

0 0.25 0.5 1 Mile
 0 0.25 0.5 1 Kilometer

* The Forest entrance is located on Highland Way 6 miles east of Soquel-San Jose Road (Old San Jose Road) and 10 miles east of Highway 17. SDSF Office: (831) 475 - 8643