

**Forest Management and Stump-to-Forest Gate Chain-of-Custody  
10-Year Re-certification Evaluation Report for the:**

**Big Creek Lumber Company**

**Conducted under auspices of the SCS Forest Conservation Program  
SCS is an FSC Accredited Certification Body**

**CERTIFICATION REGISTRATION NUMBER  
SCS-FM/COC-00009N**

**Submitted to:**

**Big Creek Lumber Company**

**Lead Author: Dr. Robert J. Hrubes**

**Date of Field Audit: August 28-29, 2006**

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Updated: December, 2008 (See Section 6.2)

Updated December 2007 (See Section 6.1)

**By:**

**SCIENTIFIC CERTIFICATION SYSTEMS  
2200 Powell St. Suite Number 725  
Emeryville, CA 94608, USA  
[www.scs-certified.com](http://www.scs-certified.com)**

**SCS Contact: Dave Wager, [dwager@scs-certified.com](mailto:dwager@scs-certified.com)  
Big Creek Contact: Janet Webb, [janetw@big-creek.com](mailto:janetw@big-creek.com)**

**Organization of the Report**

This report of the results of our evaluation is divided into two sections. Section A provides the public summary and background information that is required by the Forest Stewardship Council. This section is made available to the general public and is intended to provide an overview of the evaluation process, the management programs and policies applied to the forest, and the results of the evaluation. Section A will be posted on the SCS website ([www.scs-certified.com](http://www.scs-certified.com)) no less than 30 days after issue of the certificate. Section B contains more detailed results and information for the use of Big Creek Lumber Company.

## **FOREWORD**

Scientific Certification Systems, a certification body accredited by the Forest Stewardship Council (FSC), was retained by Big Creek Lumber Company (BCLC) to conduct a 5-year re-certification evaluation of its company-owned forest estate. Big Creek's forest estate was initially certified under FSC/SCS late 1996. Under the FSC/SCS certification system, forest management operations meeting international standards of forest stewardship can be certified as "well managed", thereby enabling use of the FSC endorsement and logo in the marketplace. The FSC protocols required that annual audits be conducted for every certificate holder and that every 5 years a full re-certification audit be conducted. The first 5-year re-certification audit of BCLC took place in 2001. This report summarizes the results of the second 5-year rec-certification audit.

In August 2006, a team of natural resource specialists was empanelled by SCS to conduct the evaluation. The team collected and analyzed written materials, conducted interviews and completed a two-day field and office audit of the subject property as part of the certification evaluation. Upon completion of the fact-finding phase of the evaluation, the team assessed conformance to the 56 FSC Criteria in order to determine whether re-award of certification for another 5-year period was warranted.

This report is issued in support of a recommendation to re-award FSC-endorsed certification to Big Creek Lumber Company for the management of its fee lands estate. In the event that a certificate is awarded, Scientific Certification Systems will post this public summary of the report on its web site ([www.scscertified.com](http://www.scscertified.com)).

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## SECTION A- PUBLIC SUMMARY AND BACKGROUND INFORMATION

### 1.0 GENERAL INFORMATION

#### 1.1 FSC Data Request

Applicant entity	Big Creek Lumber Company
Contact person	Janet McCrary Webb
Address	3564 Highway 1
Telephone	1-831-457-5023
Fax	1-831-423-2800
E-mail	<a href="mailto:janetw@big-creek.com">janetw@big-creek.com</a>
Certificate Number	SCS-FM/COC-00009N
Certificate/Expiration Date	November 1, 2006-November 1, 2011
Certificate Type	Multiple FMU
SLIMF <i>if applicable</i>	n/a
Group Members <i>if applicable</i>	n/a
Location of certified forest area	
Latitude	37.011N
Longitude	122.19W
Forest zone	Temperate
Total forest area in scope of certificate which is included in FMUs that:	
are less than 100 ha in area	791 acres
are between 100 ha and 1000 ha in area	4188 acres
meet the eligibility criteria as <i>low intensity</i> SLIMF FMUs	n/a
Total forest area in scope of certificate which is:	
privately managed <sup>1</sup>	7290 acres
state managed	
community managed <sup>2</sup>	
Number of forest workers (including contractors) working in forest within scope of certificate	#
Area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives	2165 ac
Area of forest protected from commercial harvesting of timber and managed primarily for the production of NTFPs or services	n/a
Area of forest classified as 'high conservation value forest'	2,165 ac
List of high conservation values present <sup>3</sup>	HCV 1
Chemical pesticides used	Garlon, Roundup
Total area of production forest (i.e. forest from which timber may be harvested)	5,125 ac
Area of production forest classified as 'plantation' for the purpose of calculating the Annual Accreditation Fee (AAF)	0

<sup>1</sup> The category of 'private management' includes state owned forests that are leased to private companies for management, e.g. through a concession system.

<sup>2</sup> A community managed forest management unit is one in which the management and use of the forest and tree resources is controlled by local communities.

<sup>3</sup> High conservation values should be classified following the numbering system given in the ProForest High Conservation Value Forest Toolkit (2003) available at [www.ProForest.net](http://www.ProForest.net)

Area of production forest regenerated primarily by replanting <sup>4</sup>	n/a
Area of production forest regenerated primarily by natural regeneration	5,125 ac
List of main commercial timber and non-timber species included in scope of certificate (botanical name and common trade name)	Coast Redwood ( <i>Sequoia sempervirens</i> ), Douglas-fir ( <i>Pseudotsuga menziesii</i> )
Approximate annual allowable cut (AAC) of commercial timber	Not calculated for estate. Cutting on fee lands rarely performed.
Approximate annual commercial production of non-timber forest products included in the scope of the certificate, by product type	n/a
List of product categories included in scope of joint FM/COC certificate and therefore available for sale as FSC-certified products (include basic description of product - e.g. round wood, pulp wood, sawn timber, kiln-dried sawn timber, chips, resin, non-timber forest products, etc.)	Redwood, Douglas fir and other softwood logs produced from trees harvested on the BCLC fee lands.

## Conversion Table English Units to Metric Units

### Length Conversion Factors

<u>To convert from</u>	<u>to</u>	<u>multiply by</u>
mile (US Statute)	kilometer (km)	1.609347
foot (ft)	meter (m)	0.3048
yard (yd)	meter (m)	0.9144

### Area Conversion Factors

<u>To convert from</u>	<u>to</u>	<u>multiply by</u>
square foot (sq ft)	square meter (sq m)	0.09290304
acre (ac)	hectare (ha)	0.4047

### Volume Conversion Factors

#### Volume

<u>To convert from</u>	<u>to</u>	<u>multiply by</u>
cubic foot (cu ft)	cubic meter (cu m)	0.02831685
gallon (gal)	liter	4.546

1 acre	= 0.404686 hectares
1,000 acres	= 404.686 hectares
1 board foot	= 0.00348 cubic meters
1,000 board feet	= 3.48 cubic meters
1 cubic foot	= 0.028317 cubic meters
1,000 cubic feet	= 28.317 cubic meters

Breast height = 1.4 meters, or 4 1/2 feet, above ground level

Although 1,000 board feet is theoretically equivalent to 2.36 cubic meters, this is true only when a board foot is actually a piece of wood with a volume 1/12 of cubic foot. The conversion given here, 3.48 cubic meters, is based on the cubic volume of a log 16 feet long and 15 inches in diameter inside bark at the small end.

## 1.2 Management Context

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<sup>4</sup> The area is the *total* area being regenerated primarily by planting, *not* the area which is replanted annually. NB this area may be different to the area defined as a 'plantation' for the purpose of calculating the Annual Accreditation Fee (AAF) or for other purposes.

Big Creek Lumber Company is subject to an array of regulations at the local, county, sub-state, state, and federal level. The principal regulations of greatest relevance to forest managers in California are associated with the following statutes:

**Pertinent Regulations at the Federal Level, as Promulgated under the Following Statutes:**

Endangered Species Act  
Clean Water Act  
Occupational Safety and Health Act  
National Historic Preservation Act  
Archaeological and Historic Preservation Act  
Americans with Disabilities Act  
U.S. ratified treaties, including CITES

**Pertinent Regulations at State Level:**

California Forest Practice Rules for the Southern Sub-district of the Coast Forest District

BCLC's compliance with the state Forest Practice Rules is evaluated on a continual basis by a Forest Practices Inspector from the California Department of Forestry (CDF). Inspections occur throughout the implementation of the Timber Harvest Plan (THP) process (before and after harvest). BCLC is also subject to inspections from the Central Coast Regional Water Quality Control Board.

**Pertinent Regulations at the County Level:**

Of principal significance is the zoning and land use restriction authorities of the counties in which BCLC own land: Santa Cruz, San Mateo, and Santa Clara.

**1.2.1 Environmental and Socioeconomic Context**

Big Creek Lumber Company's fee timberlands are spread throughout the Santa Cruz Mountains of California in San Mateo, Santa Cruz, and Santa Clara counties. As the density of the urban population has grown in recent years, the timber industry in these counties has endured a continuous downward trend. Big Creek is one of only two remaining private forest production companies in the Santa Cruz area. The company has resisted pressure to develop their forestlands, thus providing protection of open space and a buffer against an otherwise highly developed, urbanized landscape.

Coast Redwood Forest Type

Forested areas on BCLC company lands are dominated by second-growth Coast Redwood (*Sequoia sempervirens*). Redwood has limited distribution from southwestern Oregon southward to Salmon Creek in Monterey County, California. The species generally grows near sea level to about 2,500 feet elevation and mainly on the seaward side of the coastal mountains within the fog belt.

Average rainfall throughout its range is 35 to 100 inches, with dense dripping fog in the summer. The growing season is 6 to 12 months, with 200 to 350 frost-free days. Temperature fluctuation is minimal both diurnally and seasonally; the mean summer maximum is 68°-84°F, the mean winter minimum is 33°-40°F.

South of San Francisco redwood is found on the seaward side of the coast range, covering crests and west slopes of the coast range in usually mixed associations with other tree and shrub species (*Pseudotsuga menziesii*, *Myrica californica*, *Lithocarpus densiflora*, *Vaccinium ovatum*, *Rhododendron macrophyllum*, *Oxalis oregona*, *Polystichum munitum*, and others). Throughout the Santa Cruz Mountains, the most common habitat associated with the redwood type is the Coast Oak Woodland (CWHR habitat type).

According to the CWHR system, the redwood habitats provide food, cover, or special habitat elements (for at least one season) for 193 species. The list includes 12 reptiles, 18 amphibians, 109 birds and 54 mammals. See below for listed species occurring on Big Creek properties.

### Central Coast Ranges

Many sources do not separate the North Coast Range from the Central Ranges since geologically they are very similar. Selecting a southern terminus for this range is somewhat controversial since there is no sharp distinction between the Central Coast Ranges and the western Transverse Ranges.

The Central Coast Province is approximately 250 miles long and 50 miles wide. The mountains are not high, principally between 2,000 feet and 4,000 feet in altitude. Viewed from the sea, they appear as a continuous mountain wall rising from the sea with few intermittent breaks of small valleys and plains. Wide or long beaches are the exception; rather high coastal terraces are the norm.

The Santa Cruz Range, part of the larger Central Coast Range, is about 75 miles long and ranges in altitude from 2,000 feet just south of San Francisco to nearly 3,800 feet in the south. The eastern slope is dictated by the San Andreas fault line, which continues to traverse this region southward along the western base of the Diablo and Temblor Ranges. The Range is generally flat crested between San Francisco and Santa Cruz. South of Monterey Bay, the Santa Cruz Ranges, interrupted by the Pajaro River Valley are renamed the Gabilan Range.

The Coast redwood type has been predominantly privately owned and managed for timber production since the late 19<sup>th</sup> century. As a result, the primeval forest that existed prior to European settlement has been reduced to 5% of its historical range. The remaining 95% of the redwood forest has been converted to a much younger age class through repetitive timber harvests throughout its range.

### Listed Species

The table below displays selected wildlife species occurring on BCLC properties, their listed status, and brief notes regarding BCLC’s management response. Appropriate monitoring occurs for these species, usually by independent wildlife biologists contracted by the company.

<b>Species</b>	<b>Federal Status</b>	<b>State Status</b>	<b>Units Affected</b>	<b>Notes from Management Plan</b>
Marbled Murrelet	Threatened	Endangered	Pescadero, Butano, Gazos, Scott Creek, Big Creek	BCLC has proactively located and protected MM habitat since 1990. Stands determined to be occupied during surveys are closed to harvesting and are also protected with 300’ no-cut buffers.
American Peregrine Falcon	Recovered	Endangered	Butano	A pair of falcons has regularly nested at cliff sites on the Butano unit since 1993. Annual presence/absence surveys are carried out; BCLC retains perching trees in the area and restricts timing of operations during nesting season.
Snowy Plover	Threatened	Special Concern	Scott Creek	BCLC forest management operations do not affect snowy plovers, which nest on sand beach and dunes in the Scott Creek unit. Monitoring is done by the adjacent state park’s personnel.
California Red-Legged Frog	Threatened	Special Concern	Scott Creek, Locatelli (breeding)	Occupied breeding habitat occurs only on the Locatelli (Mill Creek Reservoir) and on the Scott Creek (in non-forested area), however there is potential for upland dispersal during winter months. No active management is deemed necessary; BCLC adheres to no-take guidelines developed by US F&W.
Coho Salmon	Threatened	Endangered (south of SF Bay)	Scott Creek, Big Creek, Miller, Locatelli; Pescadero, Gazos, Grant Co. (marginally)	Only Scott Creek and Waddell Creek have regular, self-sustaining spawning runs. Gazos & Pescadero may occasionally support intermittent runs of a few fish. BCLC’s management direction for Coho and Steelhead is to maintain/enhance instream and riparian functions needed for migration, spawning, and rearing. BCLC adheres to the Threatened & Impaired Watersheds portion of the CA Forest Practice Rules.
Steelhead	Threatened	Special Concern	Potentially all but Butano, Cahill, Casale	Same as for Coho salmon.

### Listed Plants

According to the BCLC management plan, most species of special-status plants in the area do not occur in areas likely to be affected by forest management operations (coastal dunes, bluffs, grasslands, etc.).

### **1.3 Forest Management Enterprise**

### **1.3.1 Land Use**

BCLC company lands have been privately owned by the McCary family since 1946, and have been managed primarily for commercial timber production. Upon request, BCLC provides the community with sites for outdoor recreational activities including horseback riding events, mountain bike races, youth camps, and bird watching hikes. Big Creek also makes its property available to scientists and students conducting research and educational projects.

### **1.3.2 Land Outside Scope of Certification**

All of BCLC's company-owned timberlands are included in the scope of this certificate.

## **1.4 Management Plan**

### **1.4.1 Management Objectives**

BCLC's company vision statement appears in the management plan, and reads as follows:

“Our heritage is based on three interrelated components: our family, our land, and our business. In advocating family stability, we strive to balance unity of purpose with individual interests. In managing our lands, we strive to integrate aesthetic value with productivity and health. In our business dealings, we strive to achieve long-term sustainability and profitability while conducting ourselves with integrity and creating value for ourselves, our employees, our customers, and our community.”

BCLC management objectives include providing for a sustainable flow of high quality timber from its lands, managing for fish and wildlife habitat, providing recreational opportunities, and being a “good neighbor”.

### **1.4.2 Forest Composition**

BCLC's forestlands almost exclusively consist of stands of coast redwood (*Sequoia sempervirens*). Douglas-fir (*Pseudotsuga menziesii*) is the only other commercial species of any significance, and it is a minor component in some units. Please refer to section 1.2.1, Environmental Context, for more information on the Coast Redwood forest type.

### **1.4.3 Silvicultural Systems**

Big Creek manages its lands using selection silviculture under an uneven-age system. It must be noted that the State Forest Practice Rules for the Southern Sub-District of the Coast Forest District provide restrictions on commercial harvesting in the area. Specifically, no more than 60% of the trees greater than 18 inches diameter-breast-height (DBH) and 50% of the trees 12-18” dbh may be harvested in any ten-year period. Within Santa Cruz County, BCLC operates under the further constraint that if harvest rates are 51-60% of trees greater than 18” dbh, re-entry may only occur every 14 years. Additionally, no more than 40% of trees

between 14”-18” dbh may be harvested. Big Creek’s silvicultural prescriptions stay well within these legal limits and are focused on maximizing sawlog values over time.

Most of the stands on company lands are essentially even-aged due to their second-growth status, and initial entries target the most defective trees regardless of diameter. The general prescription is to remove approximately 50 percent of the largest trees in the stand, on a 15-year cutting cycle. BCLC’s goal over time is to transition stands into a diverse, uneven-aged structure.

#### 1.4.4 Management Systems

BCLC’s lands consist of 14 geographically dispersed units, ranging in size from 20 to 4,125 acres and totaling roughly 7300 forested acres. The company also owns timber rights on several additional parcels, covered under a different certificate (SCS-FM/COC-00054GN).

Unit Name	Total Acreage	Forested Acreage
Butano	4125	3639
Locatelli	3720	1080
Scotts Creek	2220	1155
Big Creek	861	351
Pescadero	466.5	420
Gazos	320	212
Miller	320	50
Casassa	231	107
Cahill	160	40
Grant Co.	150	82
Johnson/Noda	87	53
Casale	72	30
Biggers	71	51
Whitehouse	20	20

The BCLC Forestry department employs six full-time California Registered Professional Foresters (Janet Webb, Bob Reynolds, Matt Dias, Nadia Hamey, Andy Morse, Bob Berlage) and one full-time administrative assistant (Kristin Lovett). Big Creek is one of the few forest management companies in the region that has retained its company logging crew, who are kept employed throughout the year performing maintenance and other tasks when not harvesting.

#### 1.4.5 Monitoring System

In response to CAR 2006.2, BCLC has recently updated their publicly-available management plan to include a summary of monitoring efforts on company lands. According to the summary:

“Big Creek Lumber Company employees and contractors, along with outside scientists and agency researchers, are involved in a number of monitoring efforts of our forestlands, roads,

streams, wildlife, and other resources found on certified properties. Results of monitoring are used to meet government requirements, inform future management, answer research questions, and demonstrate effectiveness of company practices. Different properties receive different levels of monitoring intensity, based on use, property size, scheduling and intensity of forest management activities, and resources present. A summary of our monitoring efforts is presented below.

- Big Creek Road Inventory Program: This is an ongoing road monitoring program that consists of Big Creek foresters and operators visiting company lands during winter storms to ensure that erosion control structures and drainage facilities are functioning properly. Where drainage facilities are found to need additional support or repair, foresters and operators are equipped with a shovel to make adjustments on the spot. When additional work is needed, repairs can be requested and scheduled through the Road Inventory Program process, to address needs in a timely and appropriate manner. Frequency and timing of road monitoring and repair is overseen by Big Creek's Chief Operations Forester, and results are compiled and kept on file in the Forestry Office. Additional information about this program is found in this Management Plan, under Road Maintenance and also in Appendix C.
- Water quality monitoring occurs on some company lands as part of an ongoing stream monitoring effort, along with monitoring that is specified by the Regional Water Quality Control Board (RWQCB) as a condition of Waivers of Waste Discharge Requirements. Summertime continuous stream temperature monitoring has been occurring for about 10 years in a number of watercourses that are found on company lands. The advent of the RWQCB waiver process in 2003 continued and expanded the use of continuous stream temperature monitoring, and added periodic wintertime turbidity monitoring, photo point monitoring, and forensic and visual monitoring to projects on company properties. Monitoring requirements associated with waivers vary based on a number of factors, and monitoring typically lasts for about 5 years following harvest. Summaries of monitoring associated with the RWQCB waiver process are provided to the Water Board on an annual basis, along with detailed data sets and analysis. Water Board staff have, in turn, developed a process for making this data available to the public.
- Growth and yield monitoring occurs occasionally on Big Creek properties, most often in conjunction with harvest re-entry planning. Specifically, a forester will visit a company property where harvesting occurred in approximately the last 10 years, and he or she may measure stump sprouts, use an increment borer to determine redwood release growth, assess planted seedling success, sample basal area, and observe canopy closure. The results of this monitoring typically take the form of a note documenting the observations and findings of the visit, which is placed in the file associated with that property. Also, some long-term growth and yield data may be obtained by way of permanent plots that have been proposed for establishment in the company's Butano Unit. Finally, as described in this Management Plan under the heading Inventory and Growth Data, timber cruises were conducted in 1990, 1995, 1997, and 2002 on company properties. Summaries of the data obtained from the previous timber cruises can be found in Appendix A.

- Marbled murrelet monitoring occurred for the ten-year period from 1992 to 2001 in the company’s Butano Unit. This extensive research effort has provided a baseline dataset for marbled murrelet presence in, and use of, the Butano property, and periodic marbled murrelet assessments since 2001 have built upon this dataset. Future management in the Butano Unit will likely require additional marbled murrelet monitoring, but this is expected to build upon the data and observations of the original ten-year monitoring effort. A copy of the study findings, titled “10 Years of Monitoring Marbled Murrelets at the South Fork of Butano Creek, San Mateo County, California, 1992-2001,” by David L. Suddjian, is on file in the Big Creek Forestry Office.
- The National Marine Fisheries Service (NMFS) has been granted permission to use Big Creek company property for several different studies into steelhead and coho salmon populations in the Scotts Creek watershed. These efforts to monitor anadromous salmonids on the Central Coast involve several different researchers from NMFS’ Santa Cruz Lab, and their study designs include SCUBA surveys, electrofishing, fish trapping, and fish passage monitoring using passive electronic fish tagging. These monitoring efforts are ongoing, and it is expected that the study results will be made available to the public following publication in peer-reviewed journals.
- Big Creek Lumber Company has provided land, as well as financial assistance, to the Monterey Bay Salmon and Trout Project fish hatchery on the main stem of Big Creek. This hatchery project monitors the success of the coho salmon population in the Scotts Creek watershed, and their periodic newsletters inform the public of activities at the hatchery and their observations regarding the local hatchery.”

#### **1.4.6 Estimate of Maximum Sustainable Yield**

The company is currently in the process of regulating its growing stock as it transitions from even-aged to uneven-aged second-growth management. The maximum sustainable yield has not been defined for the ownership.

#### **1.4.7 Estimated, Current and Projected Production**

BCLC has not harvested timber from their feelands in the past two seasons and generally harvests on feelands only intermittently. The Davenport mill as of late has relied predominantly and some years exclusively on procuring logs from various sources throughout the region.

#### **1.4.8 Chemical Pesticide Use**

Chemical herbicides are only used on Big Creek’s forests for the purposes of controlling invasive exotic weed species. BCLC does not use pesticides for site preparation or other chemical-dependent silvicultural practices. Neither of the two pesticides (Garlon and Roundup) used for control of invasives appear on the (recently expanded) FSC’s Prohibited Chemicals List.

## **2.0 GUIDELINES/STANDARDS EMPLOYED**

As the applicant forest property is located in northern California, the certification evaluation that is the subject of this report was conducted against the duly-endorsed FSC Pacific Coast Regional Forest Stewardship Standard, Version 9.0, May 9, 2005. The standard is available at the FSC-US web site ([www.fscus.org](http://www.fscus.org)) or is available, upon request, from Scientific Certification Systems ([www.scscertified.com](http://www.scscertified.com)).

## **3.0 THE CERTIFICATION ASSESSMENT PROCESS**

### **3.1 Assessment Dates**

The recertification evaluation took place over the course of two days, during August 28-29, 2006.

### **3.2 Assessment Team**

#### **Robert Hrubes, Ph.D. Forest Economist and Registered Professional Forester Project Role: FSC Team Leader**

Dr. Hrubes is a California registered professional forester (#2228) and forest economist with over 30 years of professional experience in both private and public forest management issues. He has served as Senior Vice-President of Scientific Certification Systems since February, 2000. He served as the lead auditor on the 2003 and 2005 BCLC annual audits. Dr. Hrubes worked in collaboration with SCS to develop the programmatic protocol that guide all SCS Forest Conservation Program evaluations, and has led numerous SCS Forest Conservation Program evaluations of North American (U.S. and Canada) industrial forest ownerships, as well as operations in Scandinavia, Chile, and Japan. He also has professional work experience in Brazil, Germany, Guam (U.S.), Hawaii (U.S.), and Malaysia. Dr. Hrubes holds graduate degrees in forest economics (Ph.D.), economics (M.A.) and resource systems management (M.S.) from the University of California-Berkeley and the University of Michigan. His professional forestry degree (B.S.F. with double major in Outdoor Recreation) was awarded from Iowa State University. Dr. Hrubes is the principal author of this audit report.

#### **Andrea Jung, Forester and Certification Trainee**

Andrea Jung works in the SCS Forest Management department as the Forest Certification Coordinator, where she provides logistical and programmatic support for SCS' 68 FSC endorsed forest management certificates. She received her B.S. in Forestry from the University of California, Berkeley in 2004. She has related experience interning with a large forest products company in Oregon, and studying plantation forestry in New Zealand. Ms. Jung also participated in the 2005 annual audit of Big Creek Lumber Company.

### **3.3 Assessment Process**

#### **3.3.1 Itinerary**

Monday, August 28<sup>th</sup>

*AM: Opening meeting, Headquarters*

Staff Present: Janet Webb, Bob Reynolds, Andy Morse, Nadia Hamey, Kristen Lovett, Bob Berlage.

The 10th-year recertification evaluation commenced at Big Creek's Davenport, CA headquarters with an opening meeting. Auditor Robert Hrubes gave an overview of the recertification process, and Janet Webb presented an overview of the current forest management issues for Big Creek Lumber Company. It should be noted that the recertification evaluation was performed in conjunction with the 2006 annual audit of the Big Creek Resource Managers certification (SCS-FM/COC-00054GN). Because no harvesting had been done on BCLC feelds in the past two years, the audit team decided to focus the itinerary on non-company lands displaying evidence of recent harvesting and management activities planned and executed by BCLC. In this way, and in combination with knowledge derived from Big Creek's 10-year certificate tenure, the audit team was able to assess BCLC for conformance with the Pacific Coast Regional Standard.

*PM: Field visits*

Stop 1: King's Grove Unit.

King's Grove is an 1,800-acre forested property managed under a non-industrial timber management plan (NTMP) overseen by Big Creek. The unit was purchased by a group of 17 people after World War II, and a number of the shareholders still live on the property. At the time of the evaluation, King's Grove was being actively harvested by a BCLC company logging crew of 7 people, led by supervisor Brad Barham. The particular unit visited during the audit was being tractor-logged.

Stop 2: San Jose Water Company

San Jose Water Company has engaged Big Creek in creating an NTMP for 1,000 acres it has owned since the 1850s in the Los Gatos Creek Watershed. The primary objective is to create a long-term, sustainable, conservative forest management plan that would assist in decreasing fire risk in the area, as well as providing revenue from a resource that is otherwise underutilized. The undertaking has been a high-profile, highly controversial affair due to opposition from some residents living near the Lexington Reservoir, who have formed a coalition against the NTMP called Neighbors Against Irresponsible Logging, or "NAIL". Though not included in the scope of any FSC-endorsed certificates, Big Creek will consider including the NTMP under the umbrella of their group certification. It should be noted that no harvesting has as yet occurred on this property. But the auditors viewed this property as pertinent to the assessment of Big Creek's management planning and consultative activities.

Tuesday, August 29<sup>th</sup>

*AM: Field Visits*

Stop 1: Bodfish

The Bodfish (Walsh) Unit is a roughly 1,600-acre parcel that has been managed by Big Creek since the early 1980s. It was heavily cutover in the late 1950s/early 1960s, and currently hosts 3-4 age classes of second-growth redwood. In spring of 2006, two units totaling 47 acres were harvested, and 1.4 MMBF were removed using a combination of tractor and helicopter yarding methods.

#### Stop 2: Estrada Ranch

Estrada Ranch is a 1,200-acre unit owned by two brothers, Frank and Richard Estrada. Big Creek developed and submitted an NTMP in 1998, and has assisted the landowners in managing for multiple uses including timber management, recreation and grazing. It contains a very open, park-like mix of redwood, oak, and grassland. Earlier in this year, 1 MMBF was harvested off the Estrada property using a combination of cable and tractor logging. Karl Ellis of Pacific Conifer, who has worked for many years with Big Creek as a sub-contractor, performed the job.

#### *PM: Deliberations and Closing Meeting, Headquarters*

In the afternoon, the audit team reconvened at Big Creek Lumber Company headquarters to interview BCLC staff in other departments, to deliberate on the company's conformance to the FSC Pacific Coast Regional Standard, and to present the preliminary findings of the 10th-year recertification evaluation to Big Creek forestry staff.

### **3.3.2 Big Creek Personnel Interviewed**

During the course of the 2-day audit, the SCS auditors had the opportunity to interview the following individuals:

Janet Web, Chief Forester  
Bob Reynolds  
Bob Berlage  
Andy Morse  
Nadia Hamey  
Kristin Lovett  
Brad Barham, Logging Superintendent  
Mary Samuels, Accounting Department  
Dave Rankin, CFO

### **3.3.3 Stakeholder Consultation**

Pursuant to SCS protocols, consultations with key stakeholders were an integral component of the evaluation process. Consultation took place prior to, concurrent with, and following the field evaluation. A key purpose of the consultations was to solicit input from affected parties as to the strengths and weaknesses of BCLC's management of their fee lands relative to the standard, as well as to the nature of the interaction between the company and the surrounding communities.

Principal stakeholder groups of relevance to this evaluation were identified based upon

results from the two previous BCLC certification evaluations, names of stakeholders provided by BCLC, and additional stakeholder contacts from other sources. The following types of groups and individuals were determined to be principal stakeholders:

- BCLC employees, including headquarters and field
- Contractors
- Adjacent property owners
- Members of the local environmental community
- Local and State regulatory agency personnel

Stakeholder comments were received principally through phone interviews. Due to the relatively smaller scope and complexity of the Big Creek certificate (compared to larger, more intensive industrial timber operations), a smaller sample of stakeholder interviews as deemed appropriate. A summary of stakeholders contacted and their comments is shown below.

- 1) The audit team contacted an environmental stakeholder who requested anonymity. This person regularly reviews Timber Harvest Plans and NTMPs produced by Big Creek. The individual expressed concern over old growth on Big Creek land, and was displeased that FSC policy allows for certification of companies that harvest individual old growth trees. However, it was acknowledged that this could not be effectively challenged through this certification exercise. The stakeholder also discussed the environmental community's mistrust of Big Creek and the San Jose Water Company stemming from the NTMP in the Lost Gatos Creek Watershed.
- 2) Julia Dyer, CA Central Coast Regional Water Quality Control Board. Ms. Dyer has experience with BCLC from a regulatory agency standpoint, having performed both pre- and post-harvest inspections for Big Creek THPs and NTMPs. Big Creek has not had any fines or violations for failing to meet water quality standards during her tenure as their inspector. Ms. Dyer stated that Big Creek was very proactive with regards to responding to her requests, as well as to reporting information of concern/relevance to water quality on their feelands. She also stated that Big Creek's performance was "exemplary" compared to other companies in her jurisdiction.
- 3) Rich Sampson, CDF Forest Practices Inspector. The audit team contacted Mr. Sampson, who inspects implementation of the CA Forest Practice Rules for the Southern Sub-District of the Coast District on Big Creek's lands. He stated that while there are issues with all companies he inspects, Big Creek was "one of the better ones", and that they have always been honest and up front with him if any issues do arise. Mr. Sampson asserted that BCLC has been doing a good job of complying with the requirements of the Forest Practice Rules, and that Big Creek has gone above and beyond what is required of them in terms of working with the public on NTMPs.
- 4) Kevin Flynn, Neighbors Against Irresponsible Logging. Mr. Flynn is an employee of Cisco Systems, and has been a resident of Santa Clara for the last 20 years. His property is located near the San Jose Water Company land for which Big Creek has submitted an

NTMP. Mr. Flynn is actively involved in NAIL, the community group that has organized to oppose the NTMP. He stated that before this issue arose, he did not know much about logging in general, but had heard that Big Creek had a good reputation. Since the advent of the NTMP controversy, he has felt “disillusioned” and that he has lost trust in the Big Creek and SJWC, and that he had a better perception of them prior to situation at hand. He expressed general concern that Big Creek’s outreach to the public has been “minimal”.

### **3.4 Total Time Spent on audit**

The total time spent on the audit was roughly 8 person-days, including the tasks of management documents and plans review, field visits, stakeholder consultation, and report writing.

### **3.5 Process of Determining Conformance**

Consistent with SCS Forest Conservation Program evaluation protocols, for scoring purposes the team collectively assigned weights of relative importance to the Criteria within each of the ten Principles. Scores were assigned to each Criterion at the completion of the field phase and importance-weighted means (average scores) were calculated for each Principle. Scoring takes place on a 100-point scale, using a consensus process amongst all members of the evaluation team. Scores less than 80 points connote performance in which there is discernible non-conformance to the breadth of a Criterion. For any Criterion for which the team assigns a score below 80 points, the team is required to specify one or more Corrective Action Requests (CARs), also known as “conditions.” If the weighted average score of any Principle is less than 80, certification cannot be awarded and, instead, the evaluation team must stipulate one or more Major Corrective Action Requests (Major CARs), also known as “pre-conditions.” The evaluation team also retains the option to specify “discretionary CARs” even when the score for the pertinent Criterion is above 80 points. This may occur when, overall, the Criterion was highly scored but there are issues within the scope of an Criterion where important improvements are, in the judgment of the team, necessary even though these deficiencies are not severe enough to move the score below 80 for the totality of the Criterion. For certification to be awarded, the importance-weighted average score for each of the 10 FSC Principles must be 80 points or higher.

#### ***Interpretations of Preconditions (Major CARs), CARs and Recommendations***

*Preconditions/Major CARs:* These are corrective actions that must be resolved or closed out prior to award of the certificate. These arise when the importance-weighted average score for a Principle is less than 80 points or where there is observed non-compliance with a “pre-emptive” indicator (e.g., use of GMOs is a “fatal flaw” that precludes award of certification regardless of the strength of the overall management program).

*CARs:* Corrective actions must be closed out within a specified time period of award of the certificate. Certification is contingent on the certified operations response to the CAR within the stipulated time frame.

*Recommendations:* These are suggestions that the audit team concludes would help the company move even further towards exemplary status. Action on the recommendations is voluntary and does not affect the maintenance of the certificate. Recommendations can be changed to CARs if performance with respect to the criterion triggering the recommendation falls into non-compliance.

## **4.0 RESULTS OF THE EVALUATION**

Table 4.1 below, contains the evaluation team's findings as to the strengths and weaknesses of the subject forest management operation relative to the FSC Principles of forest stewardship. The table also presents the corrective action request (car) numbers related to each principle.

**Table 4.1 Notable strengths and weaknesses of the forest management enterprise relative to the P&C**

Principle/Subject Area	Strengths Relative to the Standard	Weaknesses Relative to the Standard	CAR/REC #s
<b>P1: FSC Commitment and Legal Compliance</b>	<ul style="list-style-type: none"> <li>▪ Big Creek Lumber Company has been committed to the Principles and Criteria of the FSC since its inception; this is their 10-year re-certification</li> <li>▪ Lead Forester Janet Webb is actively involved in FSC policy development and deliberation; she also maintains active communications with SCS, thereby providing a means for promptly resolving any conflicts between regulatory requirements and the FSC certification standards</li> <li>▪ Regulatory agency personnel interviewed had only positive comments for BCLC</li> </ul>		
<b>P2: Tenure &amp; Use Rights &amp; Responsibilities</b>	<ul style="list-style-type: none"> <li>▪ BCLC has owned the rights to the land since 1946, and the McCrary family has lived in the area for 130 years.</li> </ul>		
<b>P3: Indigenous Peoples' Rights</b>	<ul style="list-style-type: none"> <li>▪ The aboriginal presence in Santa Cruz County has long been removed from the area. BC continues to look for sites.</li> <li>▪ Timber harvest planning includes a solicitation of input from neighboring rancherias</li> </ul>		

<b>P4: Community Relations &amp; Workers' Rights</b>	<ul style="list-style-type: none"> <li>▪ BCLC has long-term, stable relationships with both its employees and contractors</li> <li>▪ Working conditions meet or exceed regional norms.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Formal safety procedures for contractors would help to assure that the risks of work-related injuries are minimized.</li> </ul>	<b>REC 2006.1</b>
<b>P5: Benefits from the Forest</b>	<ul style="list-style-type: none"> <li>▪ BCLC practices conservative selection silviculture, and has increasingly relied on timber procurement from other sources to feed their sawmill.</li> <li>▪ Minimal residual stand damage</li> </ul>		
<b>P6: Environmental Impact</b>	<ul style="list-style-type: none"> <li>▪ BCLC strictly adheres to the California Forest Practice Rules for the Southern Sub-District of the Coast Forest Region</li> </ul>		
<b>P7: Management Plan</b>	<ul style="list-style-type: none"> <li>▪ BCLC's management plan describes the forest resource in depth, presents the company's management goals and objectives, and is appropriate in breadth and detail given the relatively small size and complexity of the forest management operation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ At the time of the audit, the management plan did not contain sufficient mapping to meet the requirements of Indicator 7.1.h. More "big-picture" property maps need to be included in the management plan, rather than maps only of harvest layouts</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>CAR 2006.1</b></li> </ul>
<b>P8: Monitoring &amp; Assessment</b>	<ul style="list-style-type: none"> <li>▪ Level of monitoring is appropriate for the scale of the BCLC forest operation</li> </ul>	<ul style="list-style-type: none"> <li>▪ BCLC needs to produce a publicly available summary of monitoring activities on their company lands, and include it in their management plan; the monitoring summary should include socio-economic indicators such as annual employment and contractor totals, annual purchases of goods and services, interactions with stakeholders, etc.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>CAR 2006.2</b></li> </ul>

<b>P9: Maintenance of High Conservation Value Forest</b>	<ul style="list-style-type: none"> <li>▪ Forests with HCV attributes are adequately protected and maintained in Big Creek land.</li> <li>▪ BCLC is one of the only industrial ownerships that still has HCVF components, including Type 1 old growth</li> </ul>		
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## 4.2 Preconditions/Major Corrective Action Requests

Preconditions are major corrective action requests that are placed on a forest management operation after the initial, or in this case, recertification evaluation and before the operation is certified. Certification cannot be awarded if open preconditions exist.

No preconditions/Major CARs were stipulated for Big Creek Lumber Company as a result of the recertification evaluation.

## 5.0 CERTIFICATION DECISION

### 5.1 Certification Recommendation

As determined by the full and proper execution of the SCS *Forest Conservation Program* evaluation protocols, the evaluation team hereby recommends that Big Creek Lumber Company be awarded FSC certification as a “Well-Managed Forest” subject to the corrective action requests stated in Section 5.2. Big Creek has demonstrated that their system of management is capable of ensuring that all of the requirements of the FSC Pacific Coast Regional Forest Stewardship Standard are met over the forest area covered by the scope of the evaluation. Big Creek Lumber Company has also demonstrated that the described system of management is being implemented consistently over the forest area covered by the scope of the certificate.

### 5.2 Corrective Action Requests and Recommendations

<b>Background/Justification:</b> The Big Creek management plan does not contain the array of map data that are listed in FSC Criterion 7.1., Indicator 7.1.1.	
<b>CAR 2006.1</b>	BCLC foresters must develop and incorporate additional maps containing the resource information enumerated in FSC Pacific Coast Regional Indicator 7.1.h.1.
<b>Deadline</b>	By 12/31/06
<b>Reference</b>	<i>FSC Criterion 7.1.h</i>

Note: On September 29, 2006, Big Creek staff conveyed to SCS an extensive array of ownership-level maps that are now incorporated into the management plan. As such, and concurrent to issuance of this audit report, this CAR is now **closed**.

<b>Background/Justification:</b> Big Creek presently does not make available a summary of periodic monitoring results, as required by FSC Criterion 8.5. This monitoring summary should include both bio-physical metrics as well as socio-economic metrics.	
<b>CAR 2006.2</b>	BCLC foresters must develop and make available upon request a summary of monitoring activities carried out on the property and the results of those monitoring activities.
<b>Deadline</b>	By 12/31/06
<b>Reference</b>	<i>FSC Criteria 8.2 and 8.5</i>

Note: On September 29, 2006, Big Creek staff conveyed to SCS a summary of monitoring activities undertaken by Big Creek foresters. As such, and concurrent to issuance of this audit report, this CAR is now **closed**. However, we recommend (see below) that Big Creek work to expand the focus on socio-economic metrics in this monitoring summary and that an updated summary is provided to SCS at the time of the 2007 annual audit.

### Recommendations:

<b>Background/Justification:</b> While BCLC holds a monthly safety meeting with company workers, has a safety incentive program with rewards, and requires first aid/CPR certification and evacuation plans, there are no procedures currently in place for sub-contractors.	
<b>REC 2006.1</b>	Big Creek Lumber Company should consider implementing formal safety training with sub-contractors and to more fully incorporate safety policies/issues in its contracts with entities engaged in field work on the BCLC fee lands.
<b>Reference</b>	<i>FSC Criterion 4.2a</i>

## 6.0 SURVEILLANCE EVALUATIONS

If certification is awarded, surveillance evaluations will take place at least annually to monitor the status of any open corrective action requests and review the continued conformance of Big Creek Lumber Company to the Pacific Coast Regional Forest Stewardship Standard. Public summaries of surveillance evaluations will be posted separately on the SCS website ([www.scs-certified.com](http://www.scs-certified.com)).

### 6.1 2007 ANNUAL AUDIT

#### 6.1.1 Assessment Dates

This first annual surveillance audit (of the third 5-year certificate held by Big Creek) took place on December 10-11, 2007. A total of 4 person days were spent reviewing documents and records, carrying out stakeholder consultations, performing office and field reviews, and presenting the audit findings to BCLC. The field audit was conducted concurrently with a 10-year recertification audit of SCS-FM/COC-00054GN, the Big Creek Resource Managers group certificate.

#### 6.1.2 Assessment Personnel

##### **Robert Hrubes, Ph.D. Forest Economist and Registered Professional Forester**

##### **Project Role: FSC Team Leader**

Dr. Hrubes is a California registered professional forester (#2228) and forest economist with over 30 years of professional experience in both private and public forest management issues. He has served as Senior Vice-President of Scientific Certification Systems since February, 2000. He served as the lead auditor on the 2003 and 2005 BCLC annual audits. Dr. Hrubes worked in collaboration with SCS to develop the programmatic protocol that guide all SCS Forest Conservation Program evaluations, and has led numerous SCS Forest Conservation Program evaluations of North American (U.S. and Canada) industrial forest ownerships, as well as operations in Scandinavia, Chile, and Japan. He also has professional work experience in Brazil, Germany, Guam (U.S.), Hawaii (U.S.), and Malaysia. Dr. Hrubes holds graduate degrees in forest economics (Ph.D.), economics (M.A.) and resource systems management (M.S.) from the University of California-Berkeley and the University of Michigan. His professional forestry degree (B.S.F. with double major in Outdoor Recreation) was awarded from Iowa State University. Dr. Hrubes is the principal author of this audit report.

##### **Andrea Jung, Certification Trainee**

Since 2005, Andrea Jung has worked in the SCS Forest Management department as the Forest Certification Coordinator, where she provides logistical and programmatic support for SCS' 70+ FSC endorsed forest management certificates worldwide. She received her B.S. in Forestry from the University of California, Berkeley in 2004. She has related experience interning with a large forest products company in Oregon, and studying plantation forestry in New Zealand. Ms. Jung also participated in the 2005 annual audit and 2006 recertification of Big Creek Lumber Company.

### **Sarah McKay, COC Program Associate and Certification Trainee**

Sarah McKay has been working as a Natural Resources Program Associate in the SCS Chain of Custody Certification Department since August 2007. Prior to that she worked for three years in the Policy and Standards Unit of FSC International in Bonn, Germany. Ms McKay has a degree in Biology from the University of Guelph.

#### **6.1.3 Assessment Process**

The scope of the 2007 annual audit, as with all annual audits, included: document review, auditors spending time in the office and field, and interviewing management personnel. For the purposes of stakeholder consultation as part of this annual surveillance audit, the auditors conducted phone and face-to-face interviews with a small sample of individuals having recent exposure to the Big Creek forestry operations; interviewees included agency personnel and consulting foresters. This annual audit took place in conjunction with the 2005 annual audit of Big Creek Resource Managers (BCRM, SCS-FM/COC-00054N). Because the forest management staff is the same for both managing entities, the auditor combined the review of their forest management systems and managed lands.

#### Monday, December 10th

*AM: Opening meeting, Headquarters*

Staff Present: Janet Webb, Matt Dias, Bob Reynolds, Nadia Hamey, Bob Berlage.

The 10-year recertification evaluation commenced at Big Creek's Davenport, CA Forestry division office with an opening meeting. Auditor Robert Hrubes gave an overview of the recertification process and FSC developments, and Janet Webb presented an overview of the current situation of the Big Creek Resource Managers group. The status of the previous year's CARs was discussed, and the field visit itinerary was finalized. It should be noted that the recertification evaluation was performed in conjunction with the 2007 annual audit of the BCLC certification (SCS-FM/COC-00009N).

*PM: Field visits*

#### Stop 1: Whitehouse

For the past several years, BCLC has relied exclusively on logs purchased from other landowners to support their company mill. However, the Whitehouse unit in Santa Cruz County, owned by the company, is the only feelands tract scheduled for harvesting in 2008. The unit itself covers 20 acres, and is part of a larger 80-acre THP (Timber Harvest Plan). Harvesting prescriptions include taking up to 50% of trees that are 12-18 inches in diameter, and up to 60% of trees 18" or larger. It is estimated that roughly 200,000 board feet will be removed during the operation. The lower portion of Whitehouse Creek, which runs through the property, has been designated a Class I fish-bearing watercourse by Big Creek foresters.

#### Stop 2: King's Grove

King's Grove is an 1,800-acre forested property managed under a non-industrial timber management plan (NTMP) overseen by Big Creek. The unit was purchased by a group of 17 people after World War II, and a number of the shareholders still live on the property. The site visited had been logged in August 2007 by the Big Creek logging crew; roughly 800,000 board feet were removed. The particular 30-acre unit harvested boasts some of the oldest second-growth redwood in the Santa Cruz mountains and is one of the best sites in terms of productivity (site class I). The last entry in this harvest unit had been in 1963.

Tuesday, December 11th

*AM: Field visits*

**Stop1: Johnson/Noda**

The Johnson/Noda tract is a company-owned unit located in southern Santa Cruz County. It covers a total of 87 acres (53 forested) and is slated for harvesting in 2009. An issue on this particular unit is trespassing by neighbors who have deposited trash and built illegal structures and sheds over the property line. Big Creek has responded by sending written notification to the neighbors that there may be a boundary discrepancy, and seems to be making a good faith effort to resolve any potential disputes before they occur. Another feature of this property is the presence of invasive exotic species, including pampas grass and scotch broom. Current actions to minimize the effects of these invasives include mowing and hand removal, though the situation has improved over the years by natural canopy closure.

**Stop 2: Bodfish (Walsh-Fletcher)**

The Bodfish (Walsh) property is a roughly 2300-acre parcel (1800 forested) that has been managed by Big Creek since the early 1980s, and under an NTMP since 1996. It was heavily cutover in the late 1950s/early 1960s, and currently hosts 3-4 age classes of second-growth redwood. In 2006 two units were logged using a combination of helicopter and tractor yarding. In 2007, two units totaling 150 acres were tractor-logged, yielding 500,000 board feet.

*PM: Audit Team Deliberations and Closing Meeting, Headquarters*

In the afternoon, the audit team reconvened at Big Creek Lumber Company headquarters to deliberate on the company's conformance to the FSC Pacific Coast Regional Standard. During the closing meeting, the team's overall findings from the audit were presented to Big Creek forestry staff, and four new Corrective Action Requests were stipulated.

**6.1.4 Status of Corrective Action Requests**

There were no open Corrective Action Requests at the time of this audit.

**6.1.5 General Observations**

The lead auditor's overall assessment of the Big Creek forestry staff remains that they are an exceptionally qualified and competent group of foresters and resource professionals operating in a forest management business notable for its environmental and social sensitivity. The Big Creek operations remain in solid overall conformance with what is expected of all FSC-certified operations.

**6.1.6 New Corrective Action Requests and Recommendations**

<b>Background/Justification:</b> Although it is implied that Big Creek has a long-term commitment to the FSC Principles and Criteria, as evidenced by the fact that this is their 11 <sup>th</sup> year of certification, there is no written statement thereof for the Feelands as required by Indicator 1.6.a.	
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<b>Minor CAR 2008.1</b>	BCLC should provide a written statement of commitment to the FSC Principles and Criteria.
<b>Deadline</b>	One month from receipt of recertification report
<b>Reference</b>	FSC Pacific Coast Standard Indicator 1.6.a.

<b>Background/Justification:</b> In response to CAR 2006.2, Big Creek created a monitoring summary document in place which is updated on an annual basis. However, the document does not incorporate any social assessment metrics or results.	
<b>Minor CAR 2008.2</b>	BCLC must provide SCS with an updated summary of monitoring efforts on the feelands, including results for the items listed in FSC Criterion 8.2.d.1-4. This document should serve as a template for reporting monitoring results future years, and should be made accessible to the public, if requested.
<b>Deadline</b>	2008 annual audit
<b>Reference</b>	FSC Pacific Coast Standard Indicators 8.2.d.1 - 8.2.d.4 and 8.5.a

### Recommendations:

<b>Background/Justification:</b> BCLC should consider carbon offsets when taking into account the full range of ecosystem services provided by the company forestlands.	
<b>REC 2008.2</b>	BCLC should continue to track the development of carbon credit markets and consider possible opportunities for entrance.
<b>Reference</b>	FSC Pacific Coast Standard Indicators 5.2.b, 5.4.a

<b>Background/Justification:</b> No explicit comparison has been performed of current forest conditions to historical conditions for the landscape types represented within the company forest management units.	
<b>REC 2008.3</b>	For each landscape type (i.e. redwood/Douglas-fir, oak woodland, etc.) represented on BCLC property, BCLC should perform a comparison of current ecological conditions to historical (pre-settlement) conditions, considering the elements in 6.1.a.
<b>Reference</b>	FSC Pacific Coast Standard Indicators 6.1.a and 6.1.b.

### 6.1.7 General Conclusions of the Annual Audit

Based upon information gathered through site visits, interviews, and document reviews, the SCS auditor concludes that Big Creek Lumber Company's management of its feeland forest estate continues to be in overall conformance with the FSC Principles and Criteria, as further elaborated by the Pacific Coast Regional Standard. That is, the SCS audit team has concluded from this annual audit that Big Creek Lumber Company is in superlative compliance with FSC Principles 1 through 9 (Principle 10 is not applicable as the operation is classified as "natural forest management under the FSC definitions). As such, continuation of the certification is warranted.

## 6.2 2008 ANNUAL AUDIT

### 6.2.1 Assessment Dates

This second annual surveillance audit (of the third 5-year certificate held by Big Creek) took place on December 15, 2008. A total of 4 person days were spent reviewing documents and records, carrying out stakeholder consultations, performing office and field reviews, and presenting the audit findings to BCLC. The field audit was conducted concurrently with the 2008 annual audit of SCS-FM/COC-00054G, the Big Creek Resource Managers group certificate.

## 6.2.2 Assessment Personnel

### **Robert Hrubes, Ph.D. Forest Economist and Registered Professional Forester**

#### **Project Role: FSC Team Leader**

Dr. Hrubes is a California registered professional forester (#2228) and forest economist with over 30 years of professional experience in both private and public forest management issues. He has served as Senior Vice-President of Scientific Certification Systems since February, 2000. He served as the lead auditor on the 2003 and 2005 BCLC annual audits. Dr. Hrubes worked in collaboration with SCS to develop the programmatic protocol that guide all SCS Forest Conservation Program evaluations, and has led numerous SCS Forest Conservation Program evaluations of North American (U.S. and Canada) industrial forest ownerships, as well as operations in Scandinavia, Chile, and Japan. He also has professional work experience in Brazil, Germany, Guam (U.S.), Hawaii (U.S.), and Malaysia. Dr. Hrubes holds graduate degrees in forest economics (Ph.D.), economics (M.A.) and resource systems management (M.S.) from the University of California-Berkeley and the University of Michigan. His professional forestry degree (B.S.F. with double major in Outdoor Recreation) was awarded from Iowa State University. Dr. Hrubes is the principal author of this audit report.

### **Lead Verifier: Christopher Hipkin, Contract Forestry Verifier**

#### **Project Role: FSC Forest Management Certification Trainee**

Mr. Hipkin holds a Master of Science in Wildland Resource Science, a Bachelor of Science in Forestry, and a Bachelor of Arts in Botany from the University of California at Berkeley. Mr. Hipkin is a *Registered Professional Forester* (RPF) in the State of California, a *Certified Forester* under the Society of American Foresters, and has over 20 years experience as a forestry and wildlands consultant. His work has involved providing land management services, botanical and wildlife surveys, and forest management and chain-of-custody certification services. Mr. Hipkin was amongst the first group of RPFs to be trained in the protocols of the California Climate Action Registry (CCAR) and is qualified as a Greenhouse Gas (GHG) project verifier by CCAR. Mr. Hipkin has experience serving as a verifier on a CCAR forestry project. Mr. Hipkin is currently a Certification Forester conducting FSC chain-of-custody and forest management audits along with GHG verifications for SCS and NSF-ISR.

## 6.2.3 Assessment Process

The scope of the 2008 annual audit, as with all annual audits, included: document review, auditors spending time in the office and field, and interviewing management personnel. For the purposes of stakeholder consultation as part of this annual surveillance audit, the auditors conducted phone and face-to-face interviews with a small sample of individuals having recent exposure to the Big Creek forestry operations; interviewees included agency personnel and consulting foresters. This annual audit took place in conjunction with the 2008 annual audit of Big Creek Resource Managers (BCRM, SCS-FM/COC-00054G). Because the forest management staff is the same for both managing entities and because the same management practices and silvicultural regimes are employed on both fee land and client tracts, the auditors combined the review of their forest management systems and managed lands.

### December 15th

#### *AM: Opening meeting, Headquarters*

Staff Present: Janet Webb, Matt Dias, Bob Reynolds, Nadia Haney, Bob Berlage, Kristen Lovett

This second annual surveillance audit of the third 5-year certificate held by Big Creek commenced at Big Creek's Davenport, CA Forestry division office with an opening meeting. Lead Auditor Robert Hrubes gave an overview of the certification process and FSC developments, and Janet Webb presented an overview of the current situation of the Big Creek Fee Lands and Resource Managers group.

The auditors were informed that no commercial timber harvesting took place on the fee lands during the past 12

months. This was largely due to the poor lumber markets. With this key fact in mind, the field itinerary was finalized to include a visit to two tracts: Whitehouse and Estrada Ranch.

*Late AM: Field visits*

Stop 1: Whitehouse

The Whitehouse area was recently harvested as a part of a larger 80-acre THP (Timber Harvest Plan). The unit covers 20 acres and harvesting prescriptions included taking up to 50% of trees that are 12-18 inches in diameter, and up to 60% of trees 18" or larger. It was estimated that roughly 200,000 board feet would be removed during the operation. The lower portion of Whitehouse Creek, which runs through the property, has been designated a Class I fish-bearing watercourse by Big Creek foresters.

During the site visit, the certification team observed the impacts of the logging and site preparation practices; no concerns or issues were observed. Landings, skid trails, and road maintenance were reviewed to ensure that they were in conformance with FSC indicators to minimize forest damage during harvesting, control erosion, and protect water resources. The team agreed that BCLC practices were exemplary.

The certification team also interviewed neighbours who may have been impacted by the Whitehouse THP areas to discuss the harvesting operations. No impacts or disturbances were noted. This positive response from those interviewed is in line with BCLC management objectives to be a "good neighbor." This management objective is in addition to their other objectives for its lands to provide for a sustainable flow of high quality timber, manage for fish and wildlife habitat and provide recreational opportunities.

Stop 2: Estrada Ranch

Estrada Ranch is a 1,200-acre unit owned by two brothers, Frank and Richard Estrada. Big Creek developed and submitted an NTMP in 1998, and has assisted the landowners in managing for multiple uses including timber management, recreation and grazing. It contains a very open, park-like mix of redwood, oak, fir and grassland in the southern portion of the property. The upper (northern) portion of the property is steeper and more typical of a closed canopy redwood-dominated forest common to the region. The certification team spoke with Frank Estrada during the site visit regarding the NTMP, FSC certification, and international certification standards. Additionally, the SCS lead auditor was interviewed on-camera by a local filmmaker who is engaged in a project focusing on forestry in Santa Cruz and Santa Clara counties.

*PM: Audit Team Deliberations and Closing Meeting, Headquarters*

After the first two stops, the audit team reconvened at Big Creek Lumber Company headquarters to deliberate on the company's conformance to the FSC Pacific Coast Regional Standard. During the closing meeting, the team's overall findings from the audit were presented to Big Creek forestry staff, and no Corrective Action Requests or Observations were presented.

#### **6.2.4 Status of Corrective Action Requests**

There were two open Corrective Action Requests at the time of this audit (Minor CAR 2008.1 and Minor CAR 2008.2). While BCLC managers had in fact undertaken actions in response to these two CARs, their documentation of the actions taken was deemed to not be sufficient. As such, the Minor CARs were not closed during the audit with the expectation that additional documentary evidence would be conveyed to SCS within 90 days<sup>i</sup>.

<p><b>Background/Justification:</b> Although it is implied that Big Creek has a long-term commitment to the FSC Principles and Criteria, as evidenced by the fact that this is their 11<sup>th</sup> year of certification, there is no written statement thereof for the fee lands as required by Indicator 1.6.a.</p>
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<b>Minor CAR 2008.1</b>	BCLC should provide a written statement of commitment to the FSC Principles and Criteria.
<b>Deadline</b>	One month from receipt of recertification report
<b>Reference</b>	FSC Pacific Coast Standard Indicator 1.6.a.
<b>Auditor Comments</b>	The written statement must be better formalized and conveyed to SCS within 90 days. Formal disposition of the CAR to be carried over to the 2009 annual surveillance audit.

<b>Background/Justification:</b> In response to CAR 2006.2, Big Creek created a monitoring summary document in place which is updated on an annual basis. However, the document does not incorporate any social assessment metrics or results.	
<b>Minor CAR 2008.2</b>	BCLC must provide SCS with an updated summary of monitoring efforts on the fee lands, including results for the items listed in FSC Criterion 8.2.d.1-4. This document should serve as a template for reporting monitoring results future years, and should be made accessible to the public, if requested.
<b>Deadline</b>	2008 annual audit
<b>Reference</b>	FSC Pacific Coast Standard Indicators 8.2.d.1 - 8.2.d.4 and 8.5.a
<b>Auditor Comments</b>	A draft summary was made available to the auditors during the audit. The summary needs to be finalized and conveyed to SCS within 90 days. Formal disposition of the CAR to be carried over to the 2009 annual surveillance audit.

### 6.2.5 General Observations

The lead auditor's overall assessment of the Big Creek forestry staff and their management of the certified fee lands remains that they are an exceptionally qualified and competent group of foresters and resource professionals operating in a forest management business notable for its environmental and social sensitivity.

The fee land forest tracts owned and managed by BCLC remain in a highly productive and ecologically healthy condition.

### 6.2.6 New Corrective Action Requests and Observations

No new Corrective Action Requests or Observations were issued during the 2008 Annual Audit.

### 6.2.7 General Conclusions of the Annual Audit

Based upon information gathered through site visits, interviews, and document reviews, the SCS auditor concludes that Big Creek Lumber Company's management of its fee land forest estate continues to be in overall conformance with the FSC Principles and Criteria, as further elaborated by the Pacific Coast Regional Standard. That is, the SCS audit team has concluded from this annual audit that Big Creek Lumber Company is in superlative compliance with FSC Principles 1 through 9 (Principle 10 is not applicable as the operation is classified as "natural forest management under the FSC definitions). As such, continuation of the certification is warranted.

## **6.3 2009 ANNUAL AUDIT**

### **2.1 Assessment Dates**

This third annual surveillance audit (of the third 5-year certificate held by Big Creek) took place on December 15, 2009. A total of 4 person days were spent reviewing documents and records, carrying out stakeholder consultations, performing office and field reviews, and presenting the audit findings to BCLC. The field audit was conducted concurrently with the 2009 annual audit of SCS-FM/COC-00054G, the Big Creek Resource Managers group certificate.

### **2.2 Assessment Personnel**

#### **Robert Hrubes, Ph.D. Forest Economist and Registered Professional Forester**

##### **Project Role: FSC Team Leader**

Dr. Hrubes is a California registered professional forester (#2228) and forest economist with over 30 years of professional experience in both private and public forest management issues. He has served as Senior Vice-President of Scientific Certification Systems since February, 2000. He served as the lead auditor on the 2003 and 2005 BCLC annual audits. Dr. Hrubes worked in collaboration with SCS to develop the programmatic protocol that guide all SCS Forest Conservation Program evaluations, and has led numerous SCS Forest Conservation Program evaluations of North American (U.S. and Canada) industrial forest ownerships, as well as operations in Scandinavia, Chile, and Japan. He also has professional work experience in Brazil, Germany, Guam (U.S.), Hawaii (U.S.), and Malaysia. Dr. Hrubes holds graduate degrees in forest economics (Ph.D.), economics (M.A.) and resource systems management (M.S.) from the University of California-Berkeley and the University of Michigan. His professional forestry degree (B.S.F. with double major in Outdoor Recreation) was awarded from Iowa State University. Dr. Hrubes is the principal author of this audit report.

#### **Christie Pollet-Young, SCS GHG Program Associate**

##### **Project Role: FSC Forest Management Certification Trainee**

Ms. Pollet-Young is a Program Associate for SCS's Greenhouse Gas Verification Program. Ms. Pollet-Young has over a decade of experience in forestry, ranging from forest ecology research to conservation planning to carbon offset verification in both tropical and temperate climates. She has previously worked for the Smithsonian Tropical Research Institute's Center for Tropical Forest Science and The Nature Conservancy in Peru. Ms. Pollet-Young completed a Master of Forest Science from the Yale School of Forestry and Environmental Studies, and graduated with high honors from the University of California, Berkeley with a Bachelor of Science in natural resources and forestry. Ms. Pollet-Young is a lead auditor with SCS who has validated and verified forest projects under the California Climate Action Registry, the Chicago Climate Exchange and the Climate, Community and Biodiversity Standards.

#### **Rachel Lem, SCS FSC Chain of Custody Program Associate**

##### **Project Role: FSC Forest Management Certification Trainee**

Rachel Lem received her B.S. from UC Berkeley in Conservation and Resource Studies, where she worked on several projects involving the efficacy of third-party certification in effecting international environmental governance. She has worked at SCS for over a year as both a Certification Coordinator and Program Associate and specializes in trademark use.

### **2.3 Assessment Process**

The scope of the 2009 annual audit, as with all annual audits, included: document review, auditors spending time in the office and field, and interviewing management personnel. For the purposes of stakeholder consultation as part of this annual surveillance audit, the auditors conducted phone and face-to-face interviews with a small sample of individuals having recent exposure to the Big Creek forestry operations; interviewees

included agency personnel and consulting foresters. This annual audit took place in conjunction with the 2009 annual audit of Big Creek Resource Managers (BCRM, SCS-FM/COC-00054N). Because the forest management staff is the same for both managing entities, the auditor combined the review of their forest management systems and managed lands.

### December 15th

#### *AM: Opening meeting, Headquarters*

Staff Present: Janet Webb, Matt Dias, Bob Reynolds, Nadia Haney, Bob Berlage, Colin Noyes, Kristen Lovett

This third annual surveillance audit of the third 5-year certificate held by Big Creek commenced at Big Creek's Davenport, CA Forestry division office with an opening meeting. Auditor Robert Hrubes gave an overview of the certification process and FSC developments, and Janet Webb presented an overview of the current situation of the Big Creek Fee Lands and Resource Managers group. There are two personnel changes at Big Creek Lumber since the last audit; Janet Webb is now President and Colin Noyes has joined the staff as a Forest Technician. In June, about 20 acres of the 1200 acre property, were harvested from the Estrada Ranch client lands. An open THP exists on the fee lands but there has been no activity since the last annual audit site visit.

During the opening meeting, a large focus of the discussion was the Lockheed Fire which started on August 12, 2009, and spread over 7,800 total acres. About 1700 acres of the blaze were on Big Creek lands. With CalFire, Big Creek staff were instrumental in the fire suppression activities through scouting efforts and aiding agencies in mobilization efforts through GIS. Due to the significant impact of the fire, it was decided that the site visit would highlight the effects of the Lockheed fire on the BCLC lands. Additionally, a client site was added to the field visit itinerary.

It should be noted that the annual audit was performed in conjunction with the 2009 annual audit of Big Creek Resource Managers (BCRM, SCS-FM/COC-00054G).

#### *Late AM: Field visits*

##### Stop 1: East of Lud McCrary's House

The main parcel of the Big Creek fee lands was visited to see the impacts of the Lockheed Fire. From this area, the extensive damage of the fire was seen across the landscape. Drier south-facing slopes were particularly impacted as evidenced by charred soil, minimal ground cover, few trees remaining, and holes left by roots which had been burned belowground. Limited salvage activities have taken place on the land due to both cost and Watercourse and Lake Protection Zone (WLPZ) restrictions. Destabilization was noted in the creek and some log jams were been incinerated. Nonetheless, regeneration was noted throughout the burn area.

Due to the unique opportunity to have a baseline study from the Lockheed Fire, several researchers have asked Big Creek for permission to access their lands. Big Creek has granted various researchers and scientific institutions access in exchange for receiving the results from these studies.

##### Stop 2: Fish Hatchery

The forests near the Hatchery contain lands owned by both PG&E and Big Creek, which were also affected by the Lockheed Fire. Throughout the footprint of the transmission lines and in this area, PG&E cleared potential hazard trees and ignition sources. On Big Creek's property, a 3-acre Emergency Notice was approved to remove substantially damaged trees. Both dead redwood and fir were salvaged on these lands. During the site visit it was not that the removal was conservative and trees continue to fall. There is little or no ground cover in the area and fungal conks were observed on standing trees. Though stump sprouts are present on many trees, Big Creek plans to replant in the stand.

#### *PM: Audit Team Deliberations and Closing Meeting, Headquarters*

After the first two stops, the audit team reconvened at Big Creek Lumber Company headquarters to deliberate

on the company’s conformance to the FSC Pacific Coast Regional Standard. During the closing meeting, the team’s overall findings from the audit were presented to Big Creek forestry staff, and one Observation was presented.

### Stop 3: King’s Grove

King’s Grove is a 1,800-acre forested property managed under a non-industrial timber management plan (NTMP) overseen by Big Creek. The unit was purchased by a group of 17 people after World War II, and a number of the shareholders still live on the property. The particular 30-acre unit harvested boasts some of the oldest second-growth redwood in the Santa Cruz mountains and is one of the best sites in terms of productivity (site class I). The site was not logged in 2009 due to the down timber market.

## 2.4 Status of Corrective Action Requests

There were two open Corrective Action Requests at the time of this audit (Minor CAR 2008.1 and Minor CAR 2008.2). Both Minor CARs were closed during the audit when Big Creek presented documentation to satisfy each of the corrective actions.

<b>Background/Justification:</b> Although it is implied that Big Creek has a long-term commitment to the FSC Principles and Criteria, as evidenced by the fact that this is their 11 <sup>th</sup> year of certification, there is no written statement thereof for the Feelands as required by Indicator 1.6.a.	
<b>Minor CAR 2008.1</b>	BCLC should provide a written statement of commitment to the FSC Principles and Criteria.
<b>Deadline</b>	One month from receipt of recertification report
<b>Reference</b>	FSC Pacific Coast Standard Indicator 1.6.a.
<b>Disposition of CAR</b>	A written state of commitment to the FSC Principles and Criteria was reviewed. With this documentation, this CAR is <b>closed</b> .

<b>Background/Justification:</b> In response to CAR 2006.2, Big Creek created a monitoring summary document in place which is updated on an annual basis. However, the document does not incorporate any social assessment metrics or results.	
<b>Minor CAR 2008.2</b>	BCLC must provide SCS with an updated summary of monitoring efforts on the feelands, including results for the items listed in FSC Criterion 8.2.d.1-4. This document should serve as a template for reporting monitoring results future years, and should be made accessible to the public, if requested.
<b>Deadline</b>	2008 annual audit
<b>Reference</b>	FSC Pacific Coast Standard Indicators 8.2.d.1 - 8.2.d.4 and 8.5.a
<b>Disposition of CAR</b>	An updated summary of monitoring efforts was reviewed. With this documentation, this CAR is <b>closed</b> .

## 2.5 General Observations

The lead auditor’s overall assessment of the Big Creek forestry staff remains that they are an exceptionally qualified and competent group of foresters and resource professionals operating in a forest management business notable for its environmental and social sensitivity. The Big Creek operations remain in solid overall conformance with what is expected of all FSC-certified operations.

## 2.6 New Corrective Action Requests and Observations

**Observation:**

<b>Background/Justification:</b> Management plans should be periodically revised to respond to changing environmental circumstances.	
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<b>OBS 2009.1</b>	BCLC should consider updating their management plan to include the recent Lockheed Fire.
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<b>Reference</b>	FSC Pacific Coast Standard Indicator 7.2
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**2.7 General Conclusions of the Annual Audit**

Based upon information gathered through site visits, interviews, and document reviews, the SCS auditor concludes that Big Creek Lumber Company’s management of its fee land forest estate continues to be in overall conformance with the FSC Principles and Criteria, as further elaborated by the Pacific Coast Regional Standard. That is, the SCS audit team has concluded from this annual audit that Big Creek Lumber Company is in superlative compliance with FSC Principles 1 through 9 (Principle 10 is not applicable as the operation is classified as “natural forest management under the FSC definitions). As such, continuation of the certification is warranted.

## 7.0 SUMMARY OF SCS COMPLAINT INVESTIGATION PROCEDURE

The following is a summary of the SCS Complaint Investigation Procedure, the full version of the procedure is available from SCS upon request. The SCS Complaint Investigation Procedure is designed for and available to any individual or organization that perceives a stake in the affairs of the SCS Forest Conservation Program and that/who has reason to question either the actions of SCS itself or the actions of a SCS certificate holder.

The SCS Complaint Investigation Procedure is a first-stage forum and mechanism for hopefully resolving issues, thereby avoiding the need to involve the FSC. A complaint may come from either clients (e.g., forestland owner, mill owners, manufacturer or retailer, brokers) or from other parties such as interested stakeholders. To have standing under this Procedure, complaints must be in writing, accompanied by supporting evidence, and submitted within 30 days of the date in which the action triggering the complaint occurred.

The written complaint must:

- Identify and provide contact information for the complainant
- Clearly identify the aggrieved action (date, place, nature of action) and which parties or individuals are associated with the action
- Explain how the action is alleged to violate a FSC requirement, being as specific as possible with respect to the applicable FSC requirement
- In the case of complaints against the actions of a certificate holder, rather than SCS itself, the complainant must also describe efforts taken to resolve the matter directly with the certificate holder
- Propose what actions would, in the opinion of the complainant, rectify the matter.

Written complaints should be submitted to:

Dr. Robert J. Hrubes  
Senior Vice-President  
2200 Powell Street, Suite 725  
Emeryville, California, USA 94608  
Email: [rhrubes@scscertified.com](mailto:rhrubes@scscertified.com)

As detailed in the *SCS-FCP Certification Manual*, investigation of the complaint will be confidentially conducted in a timely manner. As appropriate, corrective and preventive action and resolution of any deficiencies found in products or services shall be taken and documented.

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<sup>i</sup> Disposition of these two CARs was held over to the 2009 annual audit.