

# SmartWood

*Practical Conservation Through Certified Forestry*

## **Forest Management Public Summary for: Mendocino Redwood Company**

Certificate Number: SW-FM/COC-128  
Date of Certification: November 15, 2000  
Date of Public Summary: November 16, 2000

**This document was produced according to the guidelines of the  
Forest Stewardship Council (FSC) and the SmartWood Program.  
No part of the report should be published separately.**

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<sup>1</sup> SmartWood is implemented worldwide by the nonprofit members of the SmartWood Network. The Network is coordinated by the Rainforest Alliance, an international nonprofit conservation organization. The Rainforest Alliance is the legally registered owner of the SmartWood certification mark and label. All uses of the SmartWood label for promotion must be authorized by SmartWood Network headquarters. SmartWood certification applies to forest management practices only and does not represent endorsement of other product qualities (e.g., financial performance to investors, product function, etc.). SmartWood is accredited by the Forest Stewardship Council (FSC) for the certification of natural forest management, tree plantations and chain of custody.

## ***1. Introduction and General Summary***

To earn SmartWood certification, a forest management operation must undergo an on-site field assessment. This Public Summary Report summarizes information contained in the initial assessment report, which is produced based on information collected during the field assessment. Annual audits are conducted to monitor the forest management operation's activities, to review the operation's progress toward meeting their certification conditions, and to verify compliance with the SmartWood standards. Addenda providing the updated information obtained during these annual audits are included as attachments to the Public Summary Report.

This report presents the findings of an independent certification assessment conducted by a team of specialists representing the SmartWood Program (SW) of the Rainforest Alliance. The purpose of the assessment was to evaluate the ecological, economic, and social sustainability of the forest management practiced by Mendocino Redwood Company, LLC.

The purpose of the SmartWood program is to recognize conscientious land stewardship through independent evaluation and certification of forestry practices. The SmartWood Program is an accredited certification program of the Forest Stewardship Council (FSC). Forestry operations that attain SmartWood certification may use the FSC and SmartWood labels for public marketing and advertising, after approval of the specific use by SmartWood headquarters.

### ***1.1. Name and General Summary***

**Source Name:** Mendocino Redwood Company (MRC)  
**Address:** 6500 Durable Mill Road  
P.O. Box 390  
Calpella, CA 95418  
**Contact:** Sandy Dean  
**Tel:** (707) 485-8731  
**Fax:** (707) 485-7918  
**Web Page:** www.mrc.com

### ***1.2. General Background***

#### **A. Type of operation:**

Forestland owner/manager

#### **B. Years in operation:**

Mendocino Redwood Company, LLC, is owned and controlled by Sansome Forest Partners, Limited Partnership (hereinafter referred to as Sansome Partners) a private San Francisco-based firm specializing in long term investments. The Fisher family is the primary investor in Sansome Partners. Sansome Partners acquired the forestlands in summer of 1998 and formed Mendocino Redwood Company on June 30, 1998.

#### **C. Date first certified:**

November 15, 2000

#### **D. Latitude and Longitude:**

N 22° 96', W 123° 44' (Fort Bragg operations center)

### **1.3. Forest Management System**

#### **A. Forest type and land use history**

MRC's forests comprise 232,024 acres (about 350 square miles) of timberland in Mendocino and Sonoma Counties. The entire ownership was assessed for FSC-accredited SmartWood forest management certification. The forestland is divided up into 10 watershed areas, as shown in Table 1.1., and further subdivided into 85 different watershed planning units. The lands are approximately 98% forested. The forested areas are a mix of conifers and hardwoods. Common tree species include: redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*), tanoak (*Lithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), with occasional chinquapin (*Castanopsis chrysophylla*), black oak (*Quercus kelloggii*), Oregon white oak (*Quercus garryana*), canyon live oak (*Quercus chrysolepis*), coastal live oak (*Quercus agrifolia*), bigleaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), western hemlock (*Tsuga heterophylla*), Bishop pine (*Pinus muricata*), sugar pine (*Pinus lambertiana*) and grand fir (*Abies grandis*). The topography is moderately steep to steep. Soils are generally site 3 quality from the Dunning Class with very limited amounts of site 4 and site 2. Elevation is extremely variable among the dispersed tracts, but ranges from 100 to 2500 feet.

Before the 1850's, MRC lands were largely unharvested late-successional mixed Douglas-fir and redwood forests. White settlers began colonization of the area around this time, which marks the beginning of the redwood lumber industry for Mendocino County. Most of the lands owned by MRC were clearcut from the mid-to-late 1800's to the early 1900's. Each decade, advances in logging technology facilitated the rapid removal of the "old-growth" conifers. Some settlers used fire in an attempt to convert forest lands to grasslands. Since the 1950's the industrial timberland owners of these properties sought to maximize fiber output to feed their mills without much regard for long-term sustained timber production.

As a result of this history, large portions of the property are dominated by young forests in their second and third generation, and have reduced conifer stocking and elevated levels of hardwoods, especially tan oak. The natural tan oak component of the stands has "stump sprouted" in response to past patterns of clearcutting and fire. Thus, the tan oak component has grown out of balance in the forest stands, to the point where tan oak can represent nearly 50% of the property, where it now suppresses the natural regeneration of the redwood and Douglas fir trees that originally dominated the forest. MRC estimates that their inventory includes 9,000,000 conifer trees with diameters of 10 inches or larger. The total merchantable conifer timber volume on the land is estimated at 2.3 billion board feet. Few residual old-growth trees remain (~50,000 trees) and even fewer old-growth stands remain intact on this property (~130 acres). MRC has developed protection measures for these trees and stands (see discussion in section 3.0) based on policies that identify tree and stand conditions by age, size, functions and characteristics specific to each particular species. With the purchase of this property, the current owners desire to reverse these historical trends and seek to restore the forest to a more balanced and natural composition, and improve the quality and quantity of redwood, Douglas-fir and other conifer trees on these forestlands.

## **B. Size of management unit and area in production forest**

**Table 1. Acreage by Watershed Area (MRC Management Plan, 2000)**

<b><i>Watershed Areas</i></b>	<b><i>Acres</i></b>
Albion	16,473
Big River	34,333
Garcia	15,687
Southcoast (Greenwood, Alder and Elk)	34,429
Navarro East	29,733
Navarro West	24,986
Noyo	19,388
Rockport	39,036
Sonoma	12,242
Ukiah	5,717
<b><i>Total</i></b>	<b><i>232,024</i></b>

## **C. Regional landscape context**

The MRC property is in Mendocino and Sonoma Counties, California. Ninety-five percent of the MRC properties are in Mendocino County, accounting for 10 percent of the private land in the county. The property is located across the California coast range and is divided into 85 Planning Watersheds. In both counties timber production, ranching, agriculture (includes vineyard production), urbanization, recreation and tourism are the common uses of the land.

MRC's properties are primarily in the timber production areas of Mendocino County. Other industrial timberlands and some small, rural communities and rural subdivisions adjoin them. A portion of the assessment team flew over the MRC property in 1998 and 1999 and observed that previous owners have heavily harvested MRC's lands. The condition of the property is similar to the neighboring industrial ownerships. Historically industrial ownerships in this region were heavily cut-over. This was demonstrated in the 1970's when Mendocino County was ranked second in the state for the most timber volume harvested. California, at this time, was ranked second in the nation in volume harvested.

## **D. Annual allowable cut and or annual harvest covered by management plan**

The targeted annual harvest by Mendocino Redwood Company is approximately 2% of their total inventory. The company currently estimates that their conifer trees are growing at an average annual rate of 2.9% per year or 66 MMbf per year and will be subject to change based upon their landscape planning and inventory process. MRC is currently cutting at 40 MMbf per year. Approximately 60% of their harvested conifer volume is from redwood and 40% from Douglas-fir with minimal amounts from grand fir and western hemlock. Tanoak is the only hardwood species that is harvested commercially. Before the sale of the property, the previous owner drafted a Sustained Yield Plan (SYP) with a target harvest level of 63.5 MMbf per year, and expected approval of their SYP from the California Department of Forestry (CDF). Under the previous ownership, the harvest levels for the property were 48 MMbf during the years of 1994-1997 and were more than twice as much during the 1980's. MRC's rate of cutting is 15% lower than the most recent cut level of the previous owner (Louisiana Pacific) and about one third lower than the level described in Louisiana Pacific's SYP. MRC's cut level is expected to continue to decline in response to the landscape planning process.

As of September 2000, MRC has completed a new timber inventory assessment of half of the inventory blocks and expects completion of the entire ownership by the end of 2001. In concert with the inventory process MRC has also developed and implemented a landscape planning process that integrates ecological, physical science and stewardship objectives, which can be used to guide site specific and

watershed scale management decisions. As of September 2000 the landscape planning process had been completed on two inventory blocks. The timber inventory data and the landscape planning process are providing the tools for MRC to evaluate and improve their assessment of the annual allowable cut (AAC) for each of the 85 planning watersheds and 10 inventory blocks. Upon completion of the timber inventory assessment/ landscape planning process, for each inventory block, MRC will adjust the annual allowable cut downward for those blocks, if indicated by the data. MRC has stated that any changes proposed will be consistent with commitments to address cumulative impacts and progress on improved integration of ecological design into the landscape planning process. The final results of the landscape planning process for the next decade will be at or below the harvest level contained in the state approved Option A and will not exceed the results of the inventory and landscape planning process.

#### **E. General description of details and objectives of the management plan/system**

The opening statement of the MRC forest management plan states that the company believes it is "*possible to manage a large block of productive forestland utilizing high standards of environmental stewardship and also operate as a successful business at the same time.*" As they manage their land they expect to increase their timber inventory (with a doubling between 2050 and 2060), improve wildlife and aquatic habitat, and develop a more "natural" tree species composition over time, restoring the natural redwood and Douglas fir components of the forest. They also intend to be a successful company that people want to work for, the community is proud of, produces quality products, keeps its word, is a business that earns a profit to sustain itself and earns a return on the capital invested (MRC Management Plan, 2000).

MRC currently utilizes both uneven-aged and even-aged silviculture in its management. MRC has developed a series of guidelines and policies to assist company foresters with management decisions. They are utilizing uneven-aged management when conifer stands have good stocking (> 120 ft<sup>2</sup> of basal area) and healthy regeneration. The harvesting systems in such stands involve selecting individual trees or small groups. However, many of MRC's stands have poor stocking due to past management practices from the previous owners. In the short term before advancing to uneven-aged management systems, MRC foresters prescribe even-aged management for stands that were historically dominated by conifers but are now heavily dominated by hardwoods. In these stands, company foresters utilize primarily variable retention, either as dispersed trees or aggregate patches of trees over the harvest site. Such treatment results in a minimum tree retention of 10-40%, with the average over 20%. MRC does not utilize traditional clearcutting. Once conifer stocking has improved in these hardwood-dominated stands, MRC anticipates utilizing selection harvesting systems. As described in the company management plan, during the next five years MRC anticipates utilizing 55% uneven-aged and 45% even-aged silviculture and by 2050 they anticipate a shift to approximately 95% uneven-aged silviculture.

MRC has developed a comprehensive management plan that includes clear explanations of Company management policies. This plan is available on their web site. The plan describes:

- MRC's policies for harvest operations including: retention and recruitment of snags and large woody debris;
- "old-growth" protection; herbicide use;
- a description of their study of alternatives to herbicides currently in progress;
- completion of watershed analyses following the model for all 303d listed watersheds developed in the Garcia River watershed;
- road construction, maintenance and restoration;
- WLPZ protection; hillslope management policies that protect areas of instability and limit winter operations; and,
- hardwood recruitment and retention for wildlife; and fire protection.

In addition to MRC's timber harvesting activities, the public is allowed access, through permit, to MRC's lands for research, education and recreation. These permits limit MRC's liability in case of injury, protect wildlife, prevent road damage and sedimentation, protect watercourses and inform users of their responsibilities while on MRC's land.

#### ***1.4. General Environmental and Socioeconomic Context***

In the past, large tracts of land within the North Coast region of California were clearcut and burned, usually by timber and ranching interests. Most old-growth redwood and Douglas fir trees were harvested. Watercourses were often used as log transportation corridors. Cull logs and logging slash accumulated in most streams, often forming log jams and becoming barriers to upstream passage of adult salmonids. Human-caused fires associated with past ranching and logging activities converted some previously timbered areas to open grasslands, now used for ranching, urban development and agriculture. These historical activities, along with pollution from urbanization, agriculture and industries, have had significant adverse effects on fish and wildlife; witnessed by the growing list of rare, threatened and endangered species in the region.

To protect these species, wildlife and conservation laws have been implemented in an attempt to restore native forest ecosystems (e.g. the Migratory Bird Treaty Act of 1918, the Wildlife Conservation Law of 1947 {which set policy for conservation of wildlife in California} and the Z'Berg-Nejedly Act of 1973). In particular, the federal listing of the Northern spotted owl, marbled murrelet, coho and steelhead salmon as endangered species has had significant affect on forest management throughout the Pacific Northwest. Additionally, California also has some of the most rigorous forest practice regulations in the United States. These regulations are the result of the passage of the Z'Berg-Nejedly Forest Practices Act of 1973, developed by a governor appointed Board of Forestry and administered by the California Department of Forestry and Fire Protection (CDF). Compliance by land managers with these, and other, rules has become very challenging, especially for the small landowner. The effectiveness of these rules is a current topic of debate in California.

Since the mid-1980's conflicts over forest management within the human community, particularly in NW California have been commonplace. At the same time, forest related employment has plummeted significantly in NW California since 1990. This is due to a wide range of interacting reasons such as, changes in mill technologies, corporate consolidation of the industry and associated downsizing, historic over capitalization/excess mill capacity, shifting policy priorities on public lands, and diminishing log supplies.

The intent of the SmartWood Certification is not to blanket landowners with another layer of regulation, but to recognize those resource managers who, while under the constraints placed through the conditions developed by the assessment team, move beyond conventional practices.

#### ***1.5. Products Produced***

##### **A. Species and Products**

MRC currently produces approximately 40 MMbf of conifer logs per year (60% of which are redwood and 40% are Douglas-fir). It sells approximately 75-80% of these logs to the mills of its associated company, Mendocino Forest Products (MFP). The remaining 20-25% of its logs are sold to other local sawmills.

**B. Actual (and Potential) Annual Volumes Produced**

MRC has owned the property for just over 2 years. During 1994-1997, the previous owner harvested 48 MMbf prior to selling the property. From the late 1970's to the early 1990's the previous owner harvested more than twice the late 1990's harvest levels. The current MRC harvest level is 40 MMbf, which is 15 percent less than previous owner's most recent levels. MRC's current landscape planning process, which is expected to be complete by the end of 2001, will likely lead to modifications in the annual allowable cut (See Section 1.3D of this report).

**A. Description of Current and Future Production**

Mendocino Forest Products (MFP) is an associated but separate company from MRC. MFP has two conifer sawmills in operation, one in Ukiah and the other in Ft Bragg. The Ukiah mill is a state of the art small log mill with a capacity of 25 MMbf (log scale) per shift per year. The Fort Bragg mill is older and has slightly lower capacity of 17 MMbf (log scale) per shift per year. MFP opened a hardwood mill in Willits this year. They produce hardwood flooring and firewood (primarily from tanoak). This is one of the first full production mills utilizing hardwoods in California.

The majority of MRC's logs are processed in the three MFP mills. The large diameter logs that MFP can not process are sold on the open market. In the late Spring of 2000 the MFP mills were evaluated and certified as meeting the SmartWood chain-of-custody (CoC) requirements. This certificate enables MFP to purchase FSC certified wood from the open market and process and sell the wood as certified. Only after MRC becomes FSC certified will this certificate allow MFP to purchase, process and sell MRC's wood as being certified. The chain-of-custody assessment of these mills is not the subject of this report, however, the CoC report for MFP can be found on the SmartWood web page ([www.smartwood.org](http://www.smartwood.org)).

**D. Stable Sources of Product**

Home Depot is the primary recipient of the forest products made at the MFP mills. The MFP lumber is distributed by their Calpella Distribution Center. This center is a state of the art facility, where essentially all the Home Depot stores on the west coast have their redwood orders filled. The facility buys redwood from other California mills, as well as selling all of the MRC milled redwood. The distribution facility has the capacity to handle 200 MMbf of lumber.

***1.6. Chain of Custody Certification***

**A. Products Covered by a Chain of Custody Certificate**

Redwood and Douglas fir logs. (See 1.5 A)

**B. Approximate Annual Quantity of Products**

<b>Mill</b>	<b>Volume Produced</b>
Ukiah	80 MMbf in annual production (52% from Certified Logs) 40 MMbf treated lumber
Willits	2 MMbf tanoak flooring in annual production (estimated capacity), with 0.5 MMbf for 2000
Fort Bragg	77 MMbf in annual production (30% from Certified Logs)

**C. Chain of Custody Certificate Number: SW-FM/COC-128**

## **2. Certification Assessment Process**

The FSC certification evaluation of the Mendocino Redwood Company (MRC) was initiated in the Fall of 1998, when both SmartWood and Scientific Certification Systems (SCS) conducted preliminary/scoping evaluations. The SCS preliminary evaluation was conducted by Dr. Robert J. Hrubes, and the SmartWood scoping evaluation was conducted by a team comprised of Steven Smith (RFP), Walter Smith (Logging Specialist), Chris Maser (Forest Ecologist), Dr. Steven Radosevich (Forest Ecologist and Herbicide Expert) and Charlotte Ambrose (Wildlife Biologist). Steve Smith, Walter Smith and Charlotte Ambrose are all residents of Mendocino County.

Subsequent to each certifier's preliminary evaluation/scoping reports, MRC requested that the two certifiers consider conducting a joint evaluation. MRC requested this format because it wished to have the most rigorous certification possible by having experts associated with both certification programs involved in the evaluation of their forestlands. After discussions among the three parties, SmartWood and SCS agreed to an evaluation format that used a joint team, but with a format in which the protocols of both certification programs would be fully followed, including particularly the scoring and decision-making protocols. Robert Hrubes of SCS, and Steven Smith and Yana Valachovic of SmartWood were the respective team leaders and shared a team consisting of Chris Maser, Steven Radosevich, Dr. Mark Baker (Sociologist) and Dr. Dean Berg (Logging Engineer).

The full certification evaluation under this joint format began in the summer of 1999, with the fieldwork being conducted in July 1999. Upon completing their respective evaluations, both certifiers concluded that MRC's management program was not yet in compliance with their evaluation criteria. Reports were submitted to MRC that detailed the certifiers' findings and presented the pre-conditions upon which MRC needed to make substantive progress prior to resuming the certification evaluation process.

From the one-year period of August 1999, to September 2000, MRC worked on the SmartWood and SCS preconditions. During this time, there were periodic discussions between MRC personnel and representatives of SmartWood and SCS that focused on the progress being made in addressing the preconditions of both certifiers.

During August 2000, the certification evaluation process was resumed. In early September 2000, the full team reconvened in Mendocino County to conduct additional field investigations and to reassess MRC's performance level relative to the standards of certification, particularly with respect to the subject areas addressed in the preconditions.

### **2.1. Assessment Schedule**

#### **Phase One- 1998 Scoping**

A full scoping was conducted over three days during the late fall of 1998 by an interdisciplinary team consisting of Stephen Smith, Chris Maser, Steve Radosevich, Walter Smith, and Charlotte Ambrose. An aerial flight was included in this review.

#### **Phase Two- 1999 Full Assessment**

July 18, 1999	Initial team planning, introductions and protocols established.
July 19	Team meeting with MRC staff in Calpella for administrative overview (Sandy Dean (Owner and President), Rick Wilson, John Russels, Marty Olhiser, Tom Paper, Tom Schultz, John Nickerson, Nancy Budge, Roger Krueger, Wayne Cowells). Flight Overview of property for Dean Berg, Mark Baker and Chris Maser. Dinner meeting with John Fisher (Owner), Sandy Dean, Mike Jani.

July 20	Team meeting with John Nickerson, then field assessment with Mike Jani, John Ramaley, Andy Armstrong, Rob Remple, Ron Brinkerhoff, Bill Stevens, Aaron Baker in the Navarro and Big River watersheds.
July 21	Team meeting with Sandy Dean, Nancy Budge, John Nickerson, Fred Euphrat, Chris Surfleet; tour of the Willits hardwood mill; field tour of the Noyo inventory tract with Dave Frykman, Mike Jani. Charlotte Ambrose (SmartWood wildlife technical advisor) was present all day. Evening meeting with wildlife specialists, Bill Stevens and Aaron Baker.
July 22	Meetings with other parties /consultation with interested community members familiar with MRC in Willits and evening interviews in Fort Bragg.
July 23	Meetings with other parties /consultation with community members familiar with MRC in Fort Bragg.
July 26	Dean Berg participated in wildlife survey with Bill Stevens in early morning; Field review of Garcia River with Chris Surfleet, Mike Jani, Tom Schultz. Charlotte Ambrose (technical advisor) was present all day.
July 27	Team meetings with Nancy Budge, John Nickerson, Gene Forsburg (MRC technical advisor for inventories), Walter Smith (SW logging technical advisor). Field Review with John Woessner of Clearbrook, Confluence and J-Road THP's.
July 28	Field Review with Mike Jani, Tom Schultz, Russ Shively of Barn Gulch THP, Elk THP's, and Rockport THP's.
July 29	SmartWood Scoring
August- September	Report write-up
October	Team review of draft report
October	Draft report to MRC for initial review
November- December	Comments from MRC
May 2000	Draft report to peer reviewers
June 2000	Comment back from peer reviewers
July 2000	Final draft submitted to SW Certification Review
August 2000	SW Decision Memo Issued in support of the 1999 team's conclusion.

**Phase Three- 2000 Preconditions Audit**

August	Public Stakeholder Interviews by Mark Baker, Yana Valachovic and Steve Smith from the majority of those represented at the Phase Two (1999) meetings.
September 5	Certification Team met with Sandy Dean, Mike Jani, Nancy Budge, John Nickerson and Tom Schultz to discuss the landscape planning methodology, management plan updates and policy changes.
September 6	Morning meeting with Rob Beachler, Tom Shultz, Bill Stevens, Chris Surfleet, Nancy Budge, John Nickerson, and Mike Jani to discuss landscape, wildlife and watershed planning. Afternoon field review of recent harvests in the Miller Ridge, the Noyo and the alternatives to herbicides study with Andy Armstrong, John Ramaley and Dave Frykman.

September 7	Timber harvests review in the Albion, Greenwood Creek, Elk Creek areas. The afternoon included specific review of several contentious THP such as, the Escola plan with the developing community based carbon sequestration easement and currently occupied tree sits, and the Barn Gulch THP that had been operated on since the team last visited in 1999. MRC staff included Mike Jani, Nancy Budge, Tom Schultz, Tom Bender, Russ Shively, John Anderson and Michael Goldstein.
September 8	Morning meetings with local environmental activists. Final questions with MRC staff. Afternoon team discussion of findings
September 9	Team discussion of findings and exit interview with MRC.
October 19	Draft report to MRC for initial review
October 24	Comments from MRC
October 26	SmartWood and SCS staff interviewed Richard Higgenbottom, MRC's newly appointed president for the purpose of confirming his personal commitment to the certification process and to conditions that are being stipulated as part of the award of certification. Based upon that interview, both certifiers are assured that the new president will, indeed, keep MRC on the pathway that is earning it this conditioned certification.
October 27	Draft report to peer reviewers
November 7	Comment back from reviewers
November 7	Final draft submitted to SW Certification Review SW Decision Memo Issued
November 15, 2000	Official certified status: "Well-managed SmartWood Source"

## **2.2. Assessment Team**

**Stephen G. Smith:** SmartWood Team Leader. Mr. Smith is a California Registered Professional Forester (RPF) for almost 20 years, a certified soil erosion and sediment control specialist (CSESCS). He is experienced with fire and fuels management, community forest management, harvest planning and implementation, regulatory issues, and urban and suburban forestry issues.

**Chris Maser:** Ecologist. Chris Maser spent over 25 years as a research scientist in natural history and ecology in forest, shrub steppe, sub-arctic, desert, and coastal settings. Trained as a vertebrate zoologist, he was a research mammalogist in Nubia, Egypt (1963-1964) in Nepal (1966-1967), where he participated in a study of tick-borne diseases. He conducted a ecological survey of the Oregon Coast for the University of Puget Sound, Tacoma, Washington (1970-1973). He was a research ecologist with the U.S. Department of the Interior Bureau of Land Management for twelve years (1975-1987)--the last eight studying old-growth forests in western Oregon--and a landscape ecologist with the Environmental Protection Agency (1990-1991). Today he is an independent author as well as an international lecturer, facilitator in resolving environmental disputes, vision statements, and sustainable community development. He is also an international consultant in forest ecology and sustainable forestry practices. He has written over 260 publications and has authored books on subjects of forest ecology, sustainable forestry, community development, and mammals of the Pacific Northwest. Although he has worked in Canada, Egypt, France, Germany, Japan, Malaysia, Nepal, Slovakia, and Switzerland, he calls Corvallis, Oregon, home.

**Steven Radosevich:** Forest Science Specialist. Dr. Radosevich is a professor of Forest Science at Oregon State University since 1983. Before relocating to OSU, he was an associate professor of Botany at the University of California at Davis. His current research and teaching includes early stages of forest succession, ecology of invasive plant species, influence of humans on plant succession and the ethics of natural resource management. He is the Program Leader of the OSU Sustainable Forestry program and member of the Sustainable Forestry Partnership. His teaching includes courses on issues in forest science, weed ecology, sustainable forestry, and ethical issues in the natural resource sciences. Dr. Radosevich is the author of the first book on weed ecology (now in its second edition) and more than 100 scientific papers.

**Dean Berg:** Logging Engineer and Silviculturist, Owner of Silvicultural Engineering. Dr. Berg established his consulting business in 1988 after 14 years of working in the timber industry. His clients include private industry, regulatory agencies, Universities, tribes, non-profit organizations, and small landowners throughout the Pacific Northwest and Canada. Dr. Berg provides a unique mix of forest management and harvest design with an environmental emphasis. His background is in riparian forest design and restoration, systems planning and designs; terrestrial habitat design, watershed analysis and planning, forest research, and ecological engineering.

**Mark Baker:** Sociologist, Community Forestry and Forest Policy Specialist. Dr. Baker's primary interests concern community-based natural resource management. He is currently studying the community forestry movement in the United States. He has studied community forestry and local irrigation management in Bihar and Himachal Pradesh, India, and the evolution of watershed institutions in California. Dr. Baker has also conducted workshops and training seminars to help foresters work collaboratively with local communities on reforestation and community forestry programs. Before moving to Arcata, CA where he and his family now reside, he was a member of the Environmental Studies faculty at the University of North Carolina at Asheville where he taught environmental policy, environmental management, and political ecology.

**Yana Valachovic:** SmartWood Co-Team Leader, Forest Ecologist. Mrs. Valachovic is the Director of the Certification Program for the Institute for Sustainable Forestry. She holds a M.S. in Forest Ecology from Oregon State University. She is currently developing a research and monitoring of sustainable forestry using scientific methods. She also owns a consulting business and is conducting a watershed assessment for a 13.5 mi<sup>2</sup> basin in Humboldt County. She has worked with the USFS Pacific Northwest Research Station, the Bureau of Land Management and as a faculty research assistant for Oregon State University. Her specialties include soils, botany and mycology.

*Team Technical Advisors*

**Walter Smith:** Logging Specialist. Mr. Smith has twenty years experience in the logging and resource management. He has been involved in certification since its inception and is a founding member of the Forest Stewardship Council. He is currently the Western Regional Director for the SmartWood network.

**Charlotte Ambrose:** Wildlife Biologist. Mrs. Ambrose is a consulting wildlife biologist in Mendocino County. She has had extensive experience conducting sensitive species surveys; preparing biological/cumulative assessment reports; advising on timber harvest plans, sustained yield plans, and habitat conservation plans; and has assessed impacts on the Northern Spotted Owl.

### *Peer Reviewers*

**Greg Giusti:** Forest Ecologist. Gregory Giusti is an ecologist with nearly 23 years of experience in northern California. His degrees include undergraduate and graduate studies in population biology and ecology. His past work in the redwood type has included: the analysis of silvicultural practices on wildlife populations and animal damage, watershed/wetland analysis and education for landowners and resource agency personnel, and applied forest management education for landowners and managers. He has worked with all of the stakeholders in the redwood type including industry, non-industrial landowners and the environmental community lecturing and providing information of redwood forest ecology and bio-diversity. Mr. Giusti is employed as an extension specialist with the University of California and resides in Kelseyville, California.

**Dr. Dominique Irvine:** Anthropologist. Dominique Irvine is a Consulting Assistant Professor in the Department of Anthropological Sciences at Stanford University. She received her MFS in Forestry and Environmental Studies at Yale University in 1978, her PhD in Ecological Anthropology at Stanford University in 1987, and then carried out postdoctoral research with the Smithsonian Tropical Research Institute.

From 1988 to 1995, she worked at Cultural Survival, Inc, first as Director of Indigenous Resource Management (in Latin America), and later as Field Program Director (worldwide). During this time she worked to develop resource management programs with indigenous federations, promote appropriate markets, and advocate for policies that help to combine social and environmental goals for indigenous peoples and local communities in forest areas. In pursuing these policy goals, she helped to found the Forest Stewardship Council, where she served two terms on the FSC Board of Directors. She currently coordinates the FSC Social Working Group, and is a member of the FSC Pacific Coast Regional Working Group.

**Ron LeValley:** Wildlife Biologist. Ron LeValley is founder and Senior Biologist of Mad River Biologists, a consortium of biologists performing wildlife inventory and assessment work. Ron has coordinated a training program under the guidelines of the Pacific Seabird Group's Marbled Murrelet Inland Survey Protocol. Virtually all of the Marbled Murrelet surveyors in California and southern Oregon have gone through his training program. Recent wildlife inventory contracts include surveys on Yurok Indian Reservation Land in anticipation of timber sale planning, offshore population and productivity surveys for Marbled Murrelets, and wildlife surveys along the Mad and Eel Rivers in preparation for gravel mining operations. He served for six years as a Northern California regional editor for American Birds. His travel expertise extends from South America and the Galapagos Islands through Baja California to Alaska, northern Canada, Australia and Africa. He has been teaching natural-history and bird-watching classes for more than 20 years. Much of his early knowledge stems from a long involvement with Point Reyes Bird Observatory, including a two-year stint as a biologist at the Farallon Island research station.

### **2.3. Assessment Process**

Using criteria contained in the SmartWood Guidelines for Assessing Natural Forest Management (see section 2.4), the field team evaluated the management of the Mendocino Redwood Company's forestlands (See Section 2.1). The assessment team examined both management documents and field performance of the company. The team focused on a range of issues including those related to land tenure, forest security, silvicultural prescriptions with respect to short- and long-term productivity, technical quality of forest harvesting, environmental impacts, optimization of forest potential, effects on local communities, and economic viability of forest operations.

To accomplish the field component of the assessment, the team followed the standardized steps in the SmartWood certification process:

1. Pre-assessment Procedures - an evaluation was done of existing documentation such as management plans, MRC plans, volume and harvest data, wildlife management policies, and available maps. This information was used for preliminary briefings with assessment team members.

2. Selection of Sites - the team selected the sites to be visited based on the pre-assessment materials, interviews with staff and public, and review of forest management procedures and policies.

3. Assessment of Management - the assessment team conducted interviews with MRC's staff to ascertain MRC's forest management system and style of operation. Some MRC staff accompanied the assessment team during the field assessment work. Interviews were also conducted with mill workers.

The field portion of the Phase 2 assessment took place from July 19-28, 1999. The 7-person field team conducted inspections on portions of the Navarro, Big River, Noyo, Rockport, Greenwood, Garcia, Albion, blocks covering approximately 15% of the total MRC acreage. The sites audited were selected based on particular features of interest to the assessment team, including:

- pre-harvest planning and layout,
- recent harvests/ongoing harvesting, with examples of changes in silviculture,
- future harvest sites,
- past harvests under previous ownership
- controversial harvest sites as determined by the stakeholder community interviews
- road design, maintenance and restoration sites

4. Audit of Pre-conditions- The full assessment team convened for a second review of the specific issues that were incorporated in the pre-conditions (i.e. landscape planning, old-growth policy development and associated protections, sustained yield and staff supervision) during Phase Two. During Phase Three, the Company Option A and Management Plan were circulated to the team before field review, public consultation resumed earlier in the summer (see discussion below in section 2.5) and the team followed the same field format as described for the Phase Two 1999 assessment.

#### **2.4. Guidelines**

The MRC certification assessment was based on the ecological, economic and social principles and criteria presented in the Forest Stewardship Council-approved Institute for Sustainable Forestry/ SmartWood Guidelines for Assessing Natural Forest Management (1998) with attention given to the developing FSC Pacific Coast Working Group Regional Guidelines. The Institute for Sustainable Forestry, based in Piercy, California is responsible for SmartWood (SW) assessments in California and other regions as appropriate under a formal agreement with SmartWood. Those meeting or exceeding the Institute for Sustainable Forestry / SmartWood criteria and guidelines will be granted SmartWood Certification status.

## **2.5. Public Stakeholder Consultation**

### Consultative Efforts to Understand Stakeholder Perspectives and Concerns

In each of the three phases of the certification evaluation process, both certifiers solicited and considered the perspectives of the full range of stakeholders. Stakeholders included: local environmental activists, national environmental organizations, loggers and consulting foresters active in Mendocino County, state and federal agency personnel, MRC employees and contractors, sawmill owners, members of the County Board of Supervisors, local business people, Native Americans, and the general public. The goal of the stakeholder process is to ascertain different perspectives on the candidate operation. In the case of MRC, we sought input on whether MRC is a good neighbor; if the community receives benefits from the forest management through access for hunting, tradition use, recreation, harvesting non-timber forest products. We also explored if and how the company allows the community some input into the forest management; if the company invests in the community; and if they are fair in their business practices; etc.

### Stakeholder Process

During Phase One (Fall of 1998), and consistent with FSC expectations, both certifiers conducted relatively low-key consultation with selected stakeholders, including environmental activists.

In preparation for the full evaluations in the summer of 1999 (Phase Two), SCS and SmartWood convened a joint team of experts that included a rural sociologist. The sociologist was retained for the express task of leading the consultative efforts with stakeholders. Before the July, 1999 field evaluation, the team's sociologist began identifying groups of stakeholders and contacted over 80 individuals, including over half whom could be characterized as community activists. During this time period, other members of the evaluation team as well as personnel at SmartWood made contact with other various stakeholders.

During the two-week field investigation in July 1999, the full team held a series of meetings with invited stakeholders. These meetings took place over two days in the Willits and Fort Bragg areas. The meetings were designed to have focused discussion with stratified stakeholder groups. For example, there was a specific meeting held for the agency representatives, one for the contractors and other local loggers and foresters, and several for the local environmental activists and neighbors. Since these were open meetings, there was welcomed participation of non-invited attendees at all meetings. Approximately 70 people attended these meetings, including around a half from the environmental community. In addition to the meetings, members of the evaluation team engaged in numerous telephone and face to face interviews with a cross-section of stakeholders and reviewed all written material submitted by stakeholders. At the time of the Phase Two assessment, many stakeholders commented that MRC had not had sufficient time to change the company policies and management operations from that of the previous owner.

In the period from July 1999, until August 2000, the certification evaluation process was relatively dormant while MRC responded to the preconditions that had been presented to them at the culmination of Phase Two. During this 13-month time period, members of the evaluation team had continuing informal discussions with local activists, agency representatives and other stakeholders. For example, one member of the evaluation team, Stephen Smith, whose residence is in Mendocino County engaged in ongoing discussions and interactions with the local communities, regularly taking their input and keeping apprised of their activities and concerns. Similarly, Stephen Smith, Walter Smith and Charlotte Ambrose - members of the Smartwood preliminary assessment team -- are all residents of Mendocino County and have known the local concerns about this property literally for decades. As well, other members of the evaluation team engaged in periodic contact with a cross section of Mendocino County stakeholders. So while there was not a focused and structured consultative effort during that 13-month period, some members of the evaluation team nevertheless maintained an ongoing connection with and awareness of local attitudes and opinions.

With the resumption of the evaluation process in August 2000 (Phase Three), active consultation with stakeholders was also resumed. Phone and written interviews were selected as the principal method to consult with stakeholders during this phase for several reasons. The primary purpose of stakeholder input for this part of the evaluation was to gather information which would help the team determine the extent to which MRC had satisfied the preconditions set forth a year ago, and secondarily, to assess continued compliance with the broader guidelines for certification. The purpose was not to provide opportunities for everyone with an opinion about MRC to voice it. Given that the primary goal was to ascertain stakeholder views regarding MRC's performance relative to precondition issues, it was determined that a series of in-depth phone call interviews would be the most parsimonious approach. Additionally, the 1999 public meetings were considered by many to be inconvenient to attend and finally, the assessment team wanted to create a "safer" environment where opinions could be shared with the assessment team in confidence and not under scrutiny by other stakeholders.

A questionnaire was prepared based primarily on the preconditions of the Phase II evaluation and it was used to guide the phone interviews. Additionally, the questionnaire was sent to any stakeholder preferring to offer written rather than oral input. The questionnaire was redistributed widely by the local environmental community and approximately 40 written responses were received.

The team sociologist made contact with a wide-range of stakeholder groups. Classifying people into different groups is always problematic. The following provides an approximation of how many individuals were contacted and interviewed from each category of stakeholder: environmentalists - 8; restorationists - 2; agency personnel - 5; registered professional foresters - 4; land trusts - 2; licensed timber operators and contractors (including a couple of woods workers) - 5; Native Americans - 2 local rancherias; others - 5. People whom we tried to reach and with whom messages were left at least once included: environmentalists - 5; restorationists - 2; registered professional foresters - 2. The assessment continued to take input from stakeholders well after completion of the Phase Three field review. On the last day of the resumed field investigations, the full evaluation team met with two leading local environmental activists to hear their views about MRC and the certification process.

The primary issues of concern raised by the local stakeholders during the evaluation process included:

**Annual harvest levels:** Many expressed concern that current and projected harvest levels in MRC planning documents were too high. Some assert that logging should end altogether on the property.

**Management planning:** Activists and community members would like to have knowledge about the location of future harvest sites over 1,5,10 and 15 year time-horizons. They would also wish to have the property under a state approved Sustained Yield Plan, instead of an Option A.

**Old-growth protection:** Many are concerned that MRC policy does not provide "adequate" protection for ecologically important areas including high conservation value and old-growth forests, in the form of reserves and other conservation easements.

**Chemical use:** Many people expressed concerns about the impacts of chemical use, in particular the herbicide Garlon, on the MRC property, and believe that herbicide use should be discontinued.

**Silvicultural systems:** Many oppose clearcutting and other forms of even-aged silvicultural management (harvest) systems. There is particular criticism of use of variable retention in the areas dominated by tanoak that were once Douglas-fir or mixed redwood and Douglas-fir forests.

This assessment team was designed to be able to address these and other areas of concern and has specifically had addressed each of these concerns in section 3.0 of this report. In the MRC assessment, the views of the stakeholders often conflict with each other, and in particular, there are significantly differing opinions between the strongly-held views of some local environmental activists and the views held by other stakeholders, both local and regional. The opinions of MRC have generally improved between Phase Two and Three for most of the agency personnel, foresters, contractors, several neighbors and some environmentalists. The improvement in opinion of MRC is largely a result of the level of involvement or awareness of MRC operations during the thirteen month time period between Phases Two and Three. For example, many expressed no change in their opinion of MRC, but then commented that they really have not followed MRC over the last year, have not read their Option A or management plan, old-growth policies, etc. Generally those that have chosen to engage MRC have a better opinion of their operations. Some local environmentalists said that they will never be satisfied with MRC. The list of stakeholders contacted will remain confidential, because the opinions of MRC are often highly charged and the assessment team had to offer confidentiality to be able to solicit stakeholder input.

In total, the multi-phased certification evaluation process included extensive stakeholder interaction during each phase. This constituted, collectively, an extraordinary level of consultative effort relative to FSC norms. After 22 months of intermittent interaction with stakeholders, marked by three concentrated periods of consultation, the MRC evaluation team is fully confident that it has been made substantively aware of all pertinent issues of concern to stakeholders.

#### Why has this report been confidential?

The certifiers have not publicly released the reports of the assessment process submitted to MRC for Phases One and Two. The FSC protocols are very clear in establishing that public summaries of certification reports are to be released only when a certificate is being issued. That is, the FSC recognizes the need to balance transparency with confidentiality in a process that is voluntary and non-governmentally regulated. Thus, when a certifier is issuing a certificate and, by doing so, publicly endorsing a forest operation is it appropriate to release a report that details the findings and rationale for awarding a certificate. If reports were publicly available even when a forest operation did not achieve certification, there would clearly be a chilling effect on the willingness of forest managers to engage the certification process. As such, FSC requires a higher level of transparency when certification is awarded. In carrying out the certification evaluation of MRC, SmartWood and SCS have been fully compliant with the FSC protocols by not publicly releasing either the preliminary evaluation reports or the 1999 evaluation reports because MRC had not proceeded to a point where certification could be attained until now.

#### **2.6. Scoring**

On July 29, 1999 the team held internal meetings to discuss initial findings, propose scores, and identify pre-conditions and conditions, where appropriate, for all FSC criteria. Each member was responsible for ensuring subject areas related to his or her areas of expertise were adequately addressed. Based on the content and analysis of each criterion, a score was assigned for each criterion using the following guide. During peer review, the scores were commented upon for accuracy and consistency. On September 8-9, 2000, the team again met to determine if the preconditions had been met. The team did not issue new scores. The 2000 report was peer reviewed for a second time in October 2000.

**SmartWood Guide to Scoring, Performance Level and Compliance for Forest Certification Assessments**

<b>SCOI E</b>	<b>PERFORMANCE (General Description)</b>	<b>COMPLIANCE Pre-Conditions, Conditions &amp; Recommendations</b>
N/A	Not an applicable criterion	Not applicable, thus no pre-conditions, conditions or recommendations; criterion not used for score averaging.
1	Extremely weak performance; strongly unfavorable; or data lacking	Pre-conditions required.
2	Weak performance; improvement needed	Pre-conditions optional; conditions required.
3	Satisfactory performance	Conditions and recommendations optional.
4	Favorable performance	Recommendations (non-mandated actions) optional.
5	Clearly outstanding performance	Nothing.

The SmartWood definitions of pre-conditions, conditions and recommendations are as follows:

- **Pre-conditions** are requirements that candidate operations must agree to and address to the satisfaction of SmartWood before certification status may be obtained.
- **Conditions** are requirements that candidate operations must agree to that will form part of the certification agreement. These conditions will be expected to be fulfilled within an agreed upon time period during the five-year certification contract period. Non-compliance with conditions may lead to de-certification
- **Recommendations** are non-binding, voluntary actions suggested by assessment teams.

### ***3. Results, Conclusions and Recommendations***

#### ***3.1. General Discussion of Findings***

The assessment team found that most of the MRC foresters and management staff met the preconditions established at the conclusion of the Phase Two assessment and appear to genuinely care about the status of their forestlands. MRC’s management team is interested in the ecological and environmental aspects of their work and their emphasis on stewardship was evident throughout the assessment process. MRC staff is personable, open, forthcoming with information and answers, adaptable to new ideas, and show a willingness to change past practices. The assessment team observed that MRC has created an open work environment with a consistent sense of trust, honesty, and confidence in the direction of the new company by its employees. Foresters and resource staff have the latitude to apply their individual initiative to their projects. The changes that MRC is seeking to achieve, especially in terms of environmental stewardship, requires a paradigmatic shift in the ways industrial forest management is planned and practiced. To fully achieve this shift requires considerable and continued investment in MRC’s work force. The assessment team observed significant investment in their staff through in-house seminars, sending staff to attend outside training opportunities, hiring a full time ecologist, and through one-on-one interactions with area foresters and resource staff.

The MRC management staff and foresters are now in the process of defining and implementing a significantly different forest management program from that of the previous owner's and from the historical trend for most industrial timber companies in Mendocino and Sonoma Counties. The company has changed how it manages its people and how it operates on the land. These changes include:

- a strong commitment towards sustainable forestry and sustainable communities;
- becoming an industry and California leader by embracing the concept of ecologically based forest management, watershed assessment and restoration;
- development of a new company culture which includes a practice of openness to the community; and,
- embracing specific environmental initiatives such as identifying and protecting old-growth forests and residual trees, developing conservation easements to assure long-term protection of sensitive habitats; and, exceeding the minimum buffers for stream courses.

From an institutional perspective, MRC has been developing a Forest Science Division within the company, hiring a full time landscape ecologist; and obtaining Mike Jani as Chief Forester, Nancy Budge as Stewardship Director and promoting Tom Schultz as Operations Manager to help guide the company achieve its goals.

The 1999 assessment team found several areas needing improvement in MRC's management that were identified as preconditions (see section 3.3 of this report). MRC worked diligently during the 13 months following the 1999 assessment and has made very rapid and impressive improvements. The assessment team recognizes that their work is not fully complete. However, their accomplishments include development of sufficient systems to guide MRC towards completing its stewardship goals. MRC addressed all of the 1999 preconditions and made significant headway on many of the 1999 conditions. The following discussion identifies MRC's work towards meeting the 1999 preconditions.

### **Efforts to Meet the 1999 Preconditions**

#### *Management Planning (4.3.1) and Supervision (4.4.6)*

The 2000 Management Plan has progressed well beyond the 1999 draft and is available on the company web site. As a result of that planning process, Company foresters had a much clearer vision of MRC's stewardship goals and ability to implement them on the landscape during the 2000 review than in 1999. Recent examples of this clearer vision include: improvements in variable retention selection during conifer rehabilitation of hardwood dominated sites, the ability to identify and retain special habitats, threatened and endangered species and old-growth, and the extensive road and riparian restoration programs. Progress was also made in the Company's exploration of conservation easements, a pilot carbon sequestration easement project and in the opening of the Willits tanoak mill and the associated Ukiah flooring line. In addition, MRC has created a timber harvest plan (THP) silvicultural and habitat protection policy check list to assist in meeting company goals and objectives, encouraged foresters to spend more time supervising operations, developed a post-harvest evaluation program and a THP executive summary to assist in communicating the forester's intent to the general public. These efforts are sufficient to meet the expectations of the 1999 preconditions in section 4.4.6. The team replaced these preconditions with condition 4.4.6 to expand on the post-harvest evaluation program and to invite stakeholder input into the review of the post-harvest conditions and the THP executive summary.

MRC has developed a landscape planning process, which utilizes the results of its watershed assessments, inventory process, harvest planning, habitat evaluations, old-growth and sensitive species surveys. This landscape planning process is starting to be used to guide site-specific management decisions. The fundamental requirement in the 1999 precondition 4.3.1, was to develop a landscape planning methodology. The assessment team approves of this methodology and expects MRC to maintain its commitment to their timeline for completion of the entire landscape planning process. The team removed the 1999 precondition 4.3.1, and replaced it with a strong condition, 4.3.1 #1, which expands upon and raises the expectations by the assessment team. This new condition demonstrates the team's confidence in MRC to carry through with its commitment in this regard, and defines a path not taken by any other company in California.

At the time of 1999 assessment, MRC had not decided how to meet the state planning requirements. MRC had inherited a draft Sustained Yield Plan (SYP) from the previous owner, but it was based upon inventory data that was not in a usable format for watershed and stand level management and did not reflect MRC's stewardship goals. Because of the length of time that it takes to prepare a new SYP, MRC chose to pursue the other state-approved alternative known as Option A. The limitation of the Option A planning process is that it lacks the public review and watershed level planning process to meet the expectations of many residents in Mendocino County. MRC has made several attempts to improve the transparency of their planning process through the development of their Option A and internal Management Plan, by making summary conifer inventory data by inventory block available on the web site—an action that is unprecedented in California. The planning work at MRC however, is not yet complete and MRC recognizes that they need to prepare a state-approved plan that is open to public review and comment. MRC must maintain its commitment to the public review process and condition 4.3.1 #2 specifies that MRC develop a Sustained Yield Plan or equivalent in the next three years.

#### *Sustained Yield (4.4.1)*

Significant improvement in MRC's ability to estimate the annual allowable cut (AAC) on its ownership has also occurred during the time period between the Phase Two and Phase Three assessments. This progress was reflected in timber yield projections made for the Option A. MRC is currently completing a much more thorough and analytically based timber inventory of the entire ownership than is represented by either the previous owners draft SYP or its own Option A. This new inventory process is being completed in concert with landscape planning process. As the inventory and landscape planning processes are completed, the AAC will be adjusted as discussed in section 1.3.D of this report. The assessment team is confident that upon completion of this analytical process, at the end of 2001, MRC will have a sound annual harvest level for the ownership. It is difficult to accelerate completion of the timber inventory analysis because MRC and the assessment team requires a quality product, and the staff training needed to accomplish the analysis is not easily attainable in a short time. Condition 4.4.1 builds upon and raises the expectations of the assessment team's 1999 precondition 4.4.1 regarding the companies AAC.

#### *Ancient Forests (4.5.6)*

MRC has developed species specific definitions for old-growth stands and trees that significantly improve upon the older MRC definitions. The past definitions identified trees older than 250 years and greater than 48" diameter. The new definitions are based upon the FSC Type I-III forest classifications and include a sound evaluation of biological and ecological characteristics of those forest and tree types. These definitions have been reviewed by outside experts and meet the expectations of 1999 precondition 4.5.6 #1.

MRC has completed the inventory and mapped the locations of their remaining FSC Type I (previously un-entered) old-growth forests. MRC is currently in the development phase of conservation easements to ensure their long-term protection. MRC has completed the initial stages of the Type II (previously entered, but ecologically functioning old-growth) inventory and mapping. Type II forests have strong harvesting limitations, but over time and as surrounding habitat develop, limited single tree selection harvest may be permitted around the old-growth trees. This harvesting must preserve the residual old-growth trees and late successional characteristics of these stands. MRC has also begun initial inventory and mapping of residual, often widely dispersed old-growth trees. These individual old-growth trees will be protected under MRC's single tree old-growth policies. These are sufficient actions to remove the other old-growth preconditions and replace them with conditions to ensure that MRC continue to involve the community in the interpretation and implementation of their old-growth policies.

### **Summary of finding for subject areas not included in the preconditions**

#### *Land Tenure (4.2)*

The Mendocino Redwood Co, LLC owns the property as a titled, fee simple property with clear tenure. This property is being managed for forestry and this is clearly the most appropriate land use. Some suggest that the land could earn greater returns through other uses. Properties at higher elevations can be desirable vineyard lands and the lands close to the coast with views have residential potential. Tourism in the region has increased and development could become more profitable than forestry. Management on some of the units close to towns of Comptche, Mendocino, Albion, and Pt. Arena has become more complicated due to neighboring properties, access, trespass, land use expectations and potential off-site impacts. All of the Sonoma lands are under intensive demands for open space. MRC has repeatedly stated to the assessment team and the public that they are in the timber business and have not considered the Mendocino properties for trade or sale other than to obtain new holdings more compatible with forest management. Almost all of their lands are designated as Timber Production Zone (TPZ) according to the California zoning laws. In recent demonstration of their commitment, MRC has followed through by developing a conservation easement for the "viewshed" of the town of Comptche.

#### *Forest Management Practices (4.4)*

MRC's management maintains all major species of trees including hardwoods that are native to the area. The timber management practices of past owners have altered the species composition on many sites, which has resulted in many of the older and larger size classes of conifer species being reduced or eliminated and a dominance by hardwoods. MRC utilizes a mix of uneven-aged and even-aged management systems (see discussion in section 1.3 E of this report) with the goal of moving towards reliance on uneven-aged systems as the forests develop. In areas with dominance by tanoak and where conifers were historically present, MRC is attempting to restore these stands through use of variable retention harvesting, with an average retention of about twenty percent. This is a significant improvement over traditional clearcutting used to regenerate degraded stands to conifers. However, the assessment team is concerned about the impact of too much variable retention harvesting and has developed condition 4.3.1 #1 to address this concern. Under this condition MRC is to address the positive and negative impacts and cumulative effects of their various land uses, such as harvesting, conifer restoration, road development, protection policies, at both stand and landscape scales. Since the completion of the field portion of the 2000 assessment, MRC began to implement this condition, through expansion of their landscape planning process. Condition 4.4.1 is designed to improve MRC's choice of rehabilitation sites and strategies.

MRC has developed methods to assist in contractor interpretation and implementation of company plans. On-the-ground performance has improved significantly. The assessment team requires MRC to develop an incentive program to recognize contractors for their stewardship performance (see conditions 4.4.6). MRC has also been requiring a significant change in contractor equipment to create low impact skyline corridors, to have full suspension to lessen the impact of logging on steep slopes and to protect complex tree retention systems on logging sites. Additionally, MRC is constantly improving their roads and conducting a large number of restoration projects. Overall, MRC's harvest operations have improved since the 1999 (Phase Two) assessment.

#### *Environmental Impacts and Biological Consideration (4.5)*

MRC completes all state and federally required surveys for Threatened and Endangered (T&E) plant and animal species. MRC is in the process of inventorying and mapping snags, down logs and unique habitat areas to assist in their landscape planning process and education development of the property that it manages. A concern to the assessment team is that the staff fully understands the forest systems they manage, rather than simply meet the letter of the law. Education at all levels for the MRC staff is essential for MRC to achieve their stated stewardship goals. This education includes developing a solid foundation in ecosystem processes, wildlife biology and silviculture at the landscape scale. Overall MRC is making major strides in the right direction. As a way to improve their in-house education development, MRC recently hired a landscape ecologist. This ecologist will assist in their HCP development, landscape planning and in completion of the expanded inventory requirement in condition 4.5.1. In supplement to the old-growth protection policies, MRC's evaluation and protection of unique habitat areas fits the requirements of the high conservation value forests (HCVF) criteria.

#### *Chemical use (4.5.7)*

MRC is finding that the best way to solve a 'weed' problem is to use it as a resource. MRC's effort to create a value-added hardwood product (tanoak flooring) and firewood could become a successful rehabilitation/restoration tactic of the company. In addition, the company now appears to recognize that it cannot continue to reduce its standing inventory of conifers through even-aged management and expect to reverse the historical trend of conifer depletion on its lands. These efforts of hardwood utilization and conifer retention will eventually alleviate the need to use herbicides on company lands. In the meantime, MRC has embarked on a thorough study of alternatives to herbicides on their property. The study includes stump and foliar applications of for example, eucalyptus oil, vinegar, bleach, neem tree oil, black walnut oil, etc; manual control measures such as, girdling with and without herbicide treatment and a high stump treatment; and a smothering treatment with stump coverage. The preliminary results of this study will be available over the next few years. These efforts support MRC's commitment stated in their management plan of "*reducing and eventually eliminating the total use of herbicides*". MRC is currently in a review process of each watershed area and will be setting targets for herbicide reduction and elimination once this review is complete. MRC has informally committed to a 60% reduction over the next four years. The assessment team has improved the herbicide conditions developed during the 1999 assessment (see conditions 4.5.7).

#### *Community and Worker Relations (4.6)*

MRC engaged in public outreach, including dissemination into the public domain of previously private information regarding company policies and activities. The extent of public outreach far surpasses the industrial norm in the region, and MRC's commitment to a new style of business in an industry better known for its closed doors is a most welcome change. Public outreach activities include: presentations by MRC staff to local civic organizations, a detailed web page containing their management plan and Option A, standing invitations to take interested people on tours of company lands, and a commitment to respond to all written correspondence the company receives from the public. While the evaluation team recognizes the public outreach MRC staff have made, it has reservations about the efficacy of those efforts. At the time of the 1999 assessment the team was specifically concerned that MRC's public outreach efforts had not decreased the community distrust MRC inherited from its predecessor. In some arenas MRC's extensive public relations efforts increased community distrust. Given the history of community opposition to logging practices and the environment of widespread distrust, any instance of overpromising and underdelivering (e.g., espousing a stewardship ethic yet implementing the previous owners THP's with no or only slight modification) fuels suspicion and draws attention away from the advances MRC has made towards environmental stewardship. During the evaluation in 2000, MRC's outreach work appeared to be improving and there were signs of increased support of MRC, especially within many of the agencies and residents who have chosen to actively engage MRC. MRC must to continue to let management action speak for themselves and to show up on the land.

#### *Economic Viability (4.7)*

The property was purchased as a long-term investment by a partnership investing capital supplied primarily by the Fisher family. The favorable debt to equity ratio of MRC, MFP and MWS and the relatively reasonable interest rate reduces the pressure on timber harvest rates to service debt obligations. The relatively low stocking of many management units combined with the company's commitment to environmental stewardship reduces the likelihood of significant short-term profits. In the long term, as the basal area and volumetric indicators begin to recover from the past conifer depletion, a greater economic return can be expected. Significant investments are being made to maintain and improve forest ecosystem productivity. These investments are consistent with MRC's stated commitment to long term environmental stewardship. They include road repair and maintenance, forest inventory acquisition and analysis, geographic information and planning systems, watershed assessments, reforestation, and tanoak management. This cost may gradually decrease, primarily due to reduced road repair costs over time. However, the revenue generating pressures these programs place on MRC's already depleted conifer stocking must be carefully balanced against the benefits of the programs. For example, it is the opinion of the assessment team that in some instances, it may be better to not rehabilitate a tanoak stand if the remaining conifers in the stand must be harvested to "pay the freight" of rehabilitation. These sorts of tradeoffs need to be most carefully analyzed and evaluated.

The Willits Hardwood Mill and associated flooring line in Ukiah can utilize tanoak (for flooring and firewood) and provides local employment opportunities (approximately 33 new jobs have been created at the Willits mill and 20 new jobs at the flooring line). If successful, this will mark an important advance for the region as a whole and will provide strong incentives for neighboring industrial and non-industrial owners to manage their tanoak stands and return conifer stockings to pre-settlement levels. This endeavor is consistent with MRC's desire to be a leader in the industry. In general the assessment team observed that log handling minimizes waste and certainly the effort to make tanoak into flooring and firewood would redefine "the highest and best use", economically for that species.

The following general summary of findings is required by the FSC that briefly outlines the candidate operations strengths and weaknesses in specifically in relation to the Ten Principles of the FSC.

Principle/ Subject Area	Strengths	Weaknesses
<b>P1: FSC Commitment and Legal Compliance</b>	<ul style="list-style-type: none"> <li>MRC is seldom cited by CDF for rules infractions. CDF inspectors and other state review agency personnel as well as federal agency personnel have a positive opinion of MRC and the company's efforts to meet its statutory obligations.</li> <li>MRC senior personnel have been active participants in state and federal forest practice deliberations; the company endeavors to manage its property to a level in excess of regulatory minimums</li> <li>MRC is genuinely committed to the FSC principles and criteria and are involved in the FSC Regional Guideline development process. MRC's chief forester, Mike Jani, was chief forester at Big Creek Timber Company, a family owned redwood forest products company in Santa Cruz, when that company's lands were certified.</li> </ul>	<ul style="list-style-type: none"> <li>Some field staff tends to view the THP process as a nuisance rather than as a vehicle for assuring the public that MRC operations are compliant with the Forest Practices Act.</li> <li>A vocal minority believes that MRC is not complying with pertinent environmental and forest practice statutes and that CDF has failed to enforce those statutes by approving MRC's timber harvest plans.</li> </ul>
<b>P2: Tenure &amp; Use Rights &amp; Responsibilities</b>	<ul style="list-style-type: none"> <li>MRC owns their property with clear tenure and is primarily zoned TPZ. Property boundaries and resources are secure. They have only owned the property since 1998, but have made efforts to explore conservation easements and the development of a pilot carbon sequestration project illustrate long term commitments and stewardship.</li> </ul>	<ul style="list-style-type: none"> <li>MRC must follow through on completion of the conservation easements of Type I "Old-growth" to enhance community trust.</li> </ul>
<b>P3: Indigenous Peoples' Rights</b>	<ul style="list-style-type: none"> <li>They have had little interaction with the tribes, but staff do comply with state forest practice requirements regarding notice to nearby tribal groups of proposed activities.</li> <li>MRC does have a permit program to facilitate traditional resource use by the tribes.</li> <li>The forestry staff has demonstrated a commitment and ability to protect cultural and archeological resources.</li> </ul>	<ul style="list-style-type: none"> <li>While native American rights have not been abridged, MRC should be more affirmative in dealing with local rancherias rather than relying on perfunctory requests for information and the tribal form letters written in response to the THP's.</li> </ul>
<b>P4: Community Relations &amp; Worker's Rights</b>	<ul style="list-style-type: none"> <li>Relationships with employees and contractors is generally very positive and much improved over the prior ownership</li> <li>MRC has raised general salary levels of its professional forestry staff, relative to the prior landowner</li> <li>Regarding community relations, the wide disparity in stakeholder perspectives is both notable and challenging. MRC has owned the property for 2 years and has a mixed, but improving reputation in the community. The company has an extensive community outreach program and operates with a very high level of</li> </ul>	<ul style="list-style-type: none"> <li>MRC has made improvements in communication, but need to continue to "<i>let actions speak more for themselves</i>".</li> <li>MRC must continue to search for means of more effectively interacting with their vocal detractors</li> <li>Management planning must incorporate, more explicitly than has been the case, the results of social impact evaluations.</li> </ul>

	<p>openness. Since the summer of 1999, MRC senior staff have made good progress in improving communications with local stakeholders</p> <ul style="list-style-type: none"> <li>• The company is a major employer in the region, supporting woods employment, as well as primary and secondary processing employment. No other industrial landowners in the county are nearly as vertically integrated.</li> </ul>	
<p><b>P5: Benefits from the Forest</b></p>	<ul style="list-style-type: none"> <li>• MRC manages their timber resource for optimal financial recovery. There is little evidence of product wastage and inefficient merchandizing of wood products.</li> <li>• MRC has retrofitted their Willits mill to process their large inventory of tanoak, a tree species that has traditionally had low commercial value. This is the only large scale tanoak mill in CA. The current test runs of tanoak flooring will, if proven to be financially viable, further diversify the local natural resource-dependent economy</li> <li>• With four in-county manufacturing and distribution facilities, MRC is contributing significantly to the total economic contribution to the regional economy.</li> <li>• MRC's silvicultural strategies will lead to enhanced regional economic benefits in the future, as inventories and average stem diameters increase.</li> </ul>	<ul style="list-style-type: none"> <li>• Many of their hardwood dominated sites that were historically dominated by conifers, are expensive to restore and some conifers are being harvested in areas with low stocking to help pay for the costs of the restoration.</li> </ul>
<p><b>P6: Environmental Impact</b></p>	<ul style="list-style-type: none"> <li>• MRC's long-term management goals include increasing their timber inventory and well as improved aquatic and terrestrial habitats.</li> <li>• MRC has an extensive restoration program and are significantly upgrading roads and riparian conditions.</li> <li>• MRC is committed to reducing and eventually eliminating herbicides. MRC is actively investigating alternative/less toxic herbicide compounds as well as non-chemical treatments.</li> <li>• MRC have developed strong special habitat and old-growth protection policies. Their old-growth policies follow FSC Type I-III nomenclature and include species specific definitions. These policies stand well above comparable policies of other industrial owners in the county.</li> <li>• MRC's WLPZ management policies exceed regulatory requirements and industrial norms.</li> <li>• MRC's variable retention (VR) silviculture (particularly as it has evolved in the past</li> </ul>	<ul style="list-style-type: none"> <li>• Past management practices by the previous owners have significantly impacted the property by lowering timber stocking levels, impacting riparian conditions and fish populations, etc. MRC's baseline landscape planning process has not been completed across the ownership, however they have developed a sound methodology for this process. MRC is working towards an improved landscape level ecological design for each watershed and developing means to address a wide range of both positive and negative cumulative impacts within this planning process. This process should for example, establish the number of acres permitted for conifer restoration without undue adverse cumulative affects to other ecological processes.</li> <li>• Until the results of the alternatives to herbicide study are complete, MRC is utilizing herbicides to control hardwood growth to restore conifer stands.</li> </ul>

	<p>year) minimizes adverse visual impacts and retains post harvest ecological structure and diversity important for “lifeboating” forest functions across the stand and landscape and the long-term transition to selection silviculture substantially minimizes the adverse visual impacts of timber harvesting.</p> <ul style="list-style-type: none"> <li>• They have developed a landscape planning process to guide site specific management decisions.</li> <li>• MRC has supplemented their wildlife and fisheries biologist staff with a full-time ecologist.</li> <li>• MRC plants only native conifer tree seedlings and is not employing genetically modified organisms.</li> <li>• The annual allowable cut is being further adjusted by the landscape planning process.</li> </ul>	
<b>P7: Management Plan</b>	<ul style="list-style-type: none"> <li>• MRC has a completed a management plan and a CDF approved Option A. Each are available to the public on their web site and summaries of their inventory data is also available.</li> <li>• MRC has developed and is actively implementing a landscape planning process to guide site-specific management decisions.</li> <li>• MRC is effectively identifying and appropriately managing areas of high conservation value</li> </ul>	<ul style="list-style-type: none"> <li>• The company intends to, but has not yet committed to, developing a state-sanctioned Sustained Yield Plan (SYP) or equivalent. The SYP is the preferred planning document for a property of this size, because it is open for public review and comment.</li> <li>• THPs need to address cumulative effects more effectively.</li> <li>• Public transparency of the timber harvest planning process should be expanded.</li> </ul>
<b>P8: Monitoring &amp; Assessment</b>	<ul style="list-style-type: none"> <li>• MRC is currently completing a newly expanded timber inventory for the entire property.</li> <li>• Concurrent with this inventory process is an assessment of habitat conditions (snags, wildlife trees, retention, old-growth Type I-II forests), watershed conditions (roads, slope stability, riparian conditions, restoration priorities), and field biological surveys (fish and fish habitat, T&amp;E species). The newly designed landscape planning process will incorporate the results of these surveys.</li> <li>• Top management has developed and is now employing a stewardship performance review system that assesses the extent to which field foresters are meeting the company’s stewardship objectives.</li> </ul>	<ul style="list-style-type: none"> <li>• The assessment team would like to see further evaluation of MRC’s annual allowable harvest level and has confidence in MRC’s inventory and landscape planning process. The process will be complete at the end of 2001. To maintain quality control of the property-wide assessments the company can not accelerate completion of the process.</li> </ul>
<b>P9: Maintenance of High Conservation Value Forest</b>	<ul style="list-style-type: none"> <li>• MRC senior managers are committed to complying with the FSC’s policies regarding high conservation value forests. The senior forestry staff are actively engaged in FSC policy matters and are</li> </ul>	<ul style="list-style-type: none"> <li>• MRC has only initiated a process that must continue. As such, MRC must demonstrate to the community that their old-growth policies to protect FSC high conservation value forest areas and their attributes are not</li> </ul>

	<p>fully conversant in HCV issues.</p> <ul style="list-style-type: none"> <li>• The old-growth definitions have been improved to include species specific and ecological characteristics that improve upon age and size definitions.</li> <li>• MRC has completed mapping of all FSC Type I forests (un-entered old-growth) and initial mapping of Type II forests (entered old-growth with ecological functions) and Type III forests (secondary forest with scattered residual old growth). Protection policies follow the FSC classifications: Type I precludes old growth harvest and may include development of conservation easements; Type II and III includes preservation of ecological functions and may include some single tree selection in the area.</li> </ul>	<p>just a short-term public relations initiative, but a long-term concerted effort.</p>
<b>P10 - Plantations</b>	Not applicable	Not applicable

### 3.2. *Certification Decision*

This assessment was conducted for the purpose of certifying Mendocino Redwood Company's Forestlands as a SmartWood Certified Source. In the judgment of SmartWood headquarters, based on the inputs from the evaluation team, we find that MRC's management program, while it has numerous observed deficiencies, is on balance reasonably compliant with each of the relevant FSC principles (principle 10 is not applicable to this natural forest management operation). That is, SmartWood concludes that the observed deficiencies do not constitute FSC principle-level non-compliance. MRC has been found to have met the preconditions established in 1999 and can be certified as a well-managed operation. Attached to the certification agreement is a list of firm conditions that MRC must complete to maintain their certification status. Annual field auditing will take place to verify continued compliance and continued stakeholder input will be sought throughout this process. To strengthen the auditing process, MRC has also agreed to a larger than normal auditing team that will be comprised of a subset of the assessment team.

### 3.3. *Preconditions and Conditions Summary*

Conditions are verifiable actions that will form part of the certification agreement that Mendocino Redwood Company will be expected to fulfill at the time of the first audit or as required in the condition. Each condition has an explicit time period for completion. Non-compliance with conditions will lead to de-certification.

Section D identifies the preconditions and conditions that were written at the time of the completion of the first phase. Several of the Phase Two (1999) conditions have been rewritten for clarity, improved effectiveness or have been completed and therefore removed (for a comparison see summary from Phase Two in Section 3.3 D).

#### A. Summary of Conditions from Phase Three (2000 Review)

##### 4.3.1 Management Plan

1. *Within one year after award of certification*, demonstrate the ability to address and mitigate the cumulative effects associated with each type of land use (e.g. harvesting, conifer restoration, roads, preservation, etc) by:
  - Defining the positive and negative impacts of each land use,

- Addressing and mitigating the negative cumulative effects of each land use at the stand, watershed and landscape scale. Such cumulative effects include repeated forest management practices that over time and area lead to: degraded forests, soil erosion or compaction, loss of bioregulation, reduced biodiversity, of terrestrial or aquatic organisms, forest fragmentation, or extinction of species.
  - Planning should be designed to enhance connectivity within and across watersheds between existing and future high quality habitat areas and reserves, maintain or improve wildlife populations and habitats, address the amount of restoration forestry (including variable retention silviculture) that is allowable within a watershed, address aesthetic and community concerns, design appropriate road networks to minimize impacts, optimize shifting landscape mosaics (over time and space) of desired habitat types.
  - Utilizing existing research on local forest ecology and disturbance regimes to assist in silvicultural prescription design and landscape planning.
  - See Condition 4.4.1. #1.
2. *Within three years after award of certification*, develop a property wide, state approved planing document open to public review, scrutiny and comment. The assessment team suggests either a Sustained Yield Plan, Program Timber Environmental Impact Report (PTEIR) or functional equivalent be developed. SmartWood expects that the plan will be available for review by the second annual audit and submitted to the California Department of Forestry for approval by the time of the third annual audit.
  3. *Within six months after award of certification*, MRC must develop and make available (e.g., on the company's Web site) a concise cross reference or guide that informs stakeholders as to where, within MRC's publicly available planning documents, there can be found a summary of plan components set forth in FSC Criterion 7.1 (a)-(i):
    - a) Management objectives
    - b) Description of forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands
    - c) Description of silvicultural and/or other management system, based on the ecology of the forest and information gathered through resource inventories
    - d) Rationale for rate of annual harvest and species selection
    - e) Provisions for monitoring of forest growth and dynamics
    - f) Environmental safeguards based on environmental assessments
    - g) Plans for the identification and protection of rare, threatened and endangered species
    - h) Maps describing the forest resource base including protected areas, planned management activities and land ownership
    - i) Description and justification of harvesting techniques and equipment to be used.

#### **4.3.2 Monitoring**

1. *Within one and half years after award of certification*, MRC must meet or exceed the watershed analysis timeline of 70% completion for the ownership and develop a timeline for completion of watershed analysis on the other 30% of the ownership.
2. *Throughout the period of certification*, to enable resource staff to better integrate the range of watershed, biological and ecological needs into project planning, continue to provide training opportunities to educate foresters and resource staff on the protocols for the watershed assessment, landscape planning, cumulative effects analysis and to address Threatened and Endangered species.

#### **4.4.1 Sustained Yield**

1. *By the beginning of the 2001 logging season*, complete the inventory block planning process on five out of ten inventory blocks and adjust the annual allowable cut (AAC) downward for those blocks, if indicated by the data. *By the end of the 2001 calendar year*, complete the landscape planning process on the remaining inventory blocks and adjust the AAC accordingly.

Specifically:

- Adjust inventory presentations to account for areas not planned or available for harvest (e.g. WLPZ; old-growth protection areas; reserves; other land uses, possibly including restoration sites).
- The AAC for any inventory block may not exceed the results of the inventory analysis and landscape planning processes.
- After completion, subject the inventory and analysis to independent review.
- See conditions under 4.4.6 Supervision.

#### 4.4.2 Silviculture

1. *Within six months after award of certification*, establish a prioritization system for forest rehabilitation/ restoration that includes:
  - An assessment of current tanoak presence, existing conifer stocking levels and clarifies desired short- and long-term conditions at the stand and watershed level.
  - Techniques that will most efficiently and effectively address forest rehabilitation needs, including consideration of various silvicultural treatments and their cumulative effects at the stand and watershed levels.
  - Guidelines for use of variable retention silviculture systems (see condition 4.3.1).
  - Criteria to ensure that stocking requirements are met, that harvest sites already understocked of conifers will not be further depleted and that harvest activities on the tanoak dominated sites do not create more sites requiring rehabilitation.
  - An assessment of the need for herbicide application of tanoak versus alternative methods of control, optimal long-term stocking levels and growth rates of conifers. See conditions under 4.5.7 Chemical Use.

These guidance documents must be reviewed by SmartWood to demonstrate completion of this condition.

#### 4.4.6 Supervision

1. *Within six months after award of certification*, implement the post-harvest evaluation program in which the forester or project planner evaluates the operation to determine if it meets MRC stated vision, goals and objectives. The post-harvest evaluation program must be improved to include:
  - An assessment of post-harvest conditions with mapping of biological legacies (i.e. old-growth, wildlife trees, sensitive areas, etc.) and variable retention units;
  - Confirmation that the biologist's and physical science expert's recommendations are incorporated into landscape planning and landscape level habitat protection;
  - Confirmation that foresters are consistently interpreting and meeting MRC's goals and objectives across the inventory blocks;
  - Development of an incentive program to recognize contractors for their stewardship performance.
  - Expansion of performance indicators (e.g. miles of road closed or storm proofed; acres of forest reserved from active timber harvesting; percentage and quality of harvesting laid out under selection or variable retention systems; documentation of forest practice violations).MRC must send SmartWood a report that demonstrates progress in implementing and improving the post-harvest evaluation program.

2. *Within one year after award of certification*, expand the post-harvest evaluation program to involve stakeholder input (i.e. input from neighbors, regulators, LTO's, etc) and confirm that the newly developed Timber Harvest Plan Executive Summary is effective in describing the intent of the forester and the company.

#### **4.5.1 Biodiversity –Landscape Level**

1. *Within one year after award of certification*, develop a plan to achieve the creation of a reserve system that maintains the long-term functional qualities of areas considered to be high conservation value forests (e.g., WLPZ's, old-growth and other unique habitats). This plan must build on the work completed to date and continue to engage in development of conservation easements. This formalization of a reserve system and associated protection policies must include review by independent experts to confirm that the reserve system has an ecological basis and provides for connectivity between habitat types across the landscape. Protection policies should be written to achieve functional ecological and habitat protection and do not need to be a "no harvest" policy in every instance. Full implementation of the protection policies is expected four years after award of certification.
2. *Within two years after award of certification*, develop field sampling protocols and begin to conduct a comprehensive inventory of plant, wildlife and special habitats across the ownership beyond Threatened and Endangered (T&E) species. These sampling protocols must be reviewed by independent experts and be completed with a reasonable level of robustness given the length of time to complete this condition. MRC must display the results of these inventories on working maps or GIS overlays to integrate with harvest and landscape plans.<sup>2</sup>

#### **4.5.6 Ancient Forests**

1. *Within one year after award of certification*, demonstrate ability to involve community members in the interpretation and implementation of high conservation value (HCV) forests policies that includes forests classified as old-growth or unique habitat areas. This should include public field reviews with MRC staff. *Prepare annual public reports* that summarize MRC's efforts to protect the function of HCV forests and progress made with easement development.
2. *Within one year after award of certification*, complete the inventory and mapping of all high conservation value forests, including Type I-III old-growth forested areas based on the draft FSC regional guideline nomenclature.

#### **4.5.7 Chemical Use-**

1. *Within six months from award of certification*, complete the evaluation in progress that identifies the need for the use of herbicides. From that data, prepare a timeline for the reduction and elimination of herbicides. Once completed, include the evaluation data and the timeline in the management plan.
2. *Within one year from award of certification*, establish criteria to help field staff identify alternatives to herbicide use, develop monitoring techniques and a record keeping system to document reduction of herbicide use over time and area. Provide verifiable information on an annual basis to demonstrate success in meeting reduction and eventual elimination of herbicides. *Throughout the period of certification*, continue research into alternatives to herbicide use. Provide an annual update of activities and results.

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<sup>2</sup> The "Lifeform" concept and "Vulnerability Index" as discussed in the following book is a helpful example. E. Reade Brown (Technical Editor). 1985. Management of Fish and Wildlife Habitats in Forests of Western Oregon and Washington . USDA Forest Service, PNW Research Stations. Portland, Oregon. This book is currently being updated and will be published in 2001 by Oregon State University Press.

#### **4.6.1 Community Relations**

1. *Throughout the period of certification*, MRC must continue to develop and implement new modes for interacting credibly and effectively with the public. Efforts to more effectively communicate with the local community should include greater public availability about planned activities in each watershed, establishing standing advisory committees, and completion of the issues address in the following conditions: management planning (4.3.1 #2), supervision (4.4.6 #2), landscape planning (4.5.1 #2) and old-growth (4.5.6#2). MRC must provide an annual evaluation of the Company's interaction with the local community and identify strategies for improvement.

#### **4.6.3 Indigenous People's Rights**

1. *Within one year from award of certification*, MRC must demonstrate that the company's modes of communication with pertinent Native American tribes meets or exceeds the level or form of tribal communication with MRC. For instance, if a personal letter is sent by a tribal representative in response to a THP, MRC should respond in kind rather than relying upon a form letter. Generally, MRC should be open to appropriate opportunities to elevate the quality of communications with potentially affected Native American tribes.

#### **4.8.1 Chain-of-Custody**

1. *Before the first load of logs are shipped*, mark each load of logs with a load ticket that clearly and visually distinguishes the certified status of the load to the buyer. Include the FSC approved registration code assigned by SmartWood in the shipment or other relevant documentation related to certified sales (i.e. load ticket, log purchase agreement, etc.).
2. *At each annual audit within the certification period*, prepare a report, which summarizes volume, species, grade and sources of certified logs sold to outside purchasers.

#### **C. Summary of Recommendations**

Additionally, 43 non-binding recommendations to MRC have been suggested and delivered to MRC.

#### **D. Summary of Preconditions from Phase Two (1999 Review)**

During the Phase Three (2000) review, the assessment team observed that MRC has made significant progress to meet the following preconditions. A detailed discussion appears in section 3.1. in this report.

##### **4.3.1 Management Planning**

1. Improve the management plan to incorporate an overall landscape planning and watershed area planning methodology that will guide site-specific management decisions over time. Incorporate the issues in preconditions 4.4.1, 4.4.6, and 4.5.6 into the management and landscape plans.

##### **4.4.1 Sustained Yield**

1. A realistic and defensible estimate of MRC's annual allowable cut needs to be made. The allowable cut level must include demonstrated use of the timber inventory data, the watershed assessments and an accurate assessment of the area available for harvest. This estimate of allowable cut should be transferable from the ownership and timber tract to the harvest unit level. Direction and policies should be provided to foresters about how to use such information to choose harvest sites, select appropriate silvicultural methods, and preserve legacy stands and trees specific to each management block.

##### **4.4.6 Supervision**

1. Provide written guidelines and instruction to foresters and contractors so they understand how to implement the management plan and vision.

2. Resource staff will incorporate the guidelines developed with preconditions 4.3.1 and 4.4.1 into their timber harvest plans and other activities so that MRC's stewardship goals are applied at the project level and evident on the landscape.

#### **4.5.2 Biodiversity- Species Level**

1. See preconditions 4.5.6

#### **4.5.6 Ancient Forests**

1. Improve MRC's definition of old-growth trees and stands by species to include characteristics beyond age and size. The new definition must incorporate biological and ecological characteristics that are measurable, should be formulated with help of and/or reviewed by regional scientific experts, be understandable to MRC's staff and acceptable to the environmental community. For example some trees < 250 years old and/or smaller than 48" dbh may function as old-growth habitat.
2. Complete an inventory on MRC property to substantiate where old-growth forest stands exist using the new definition and map their locations (see preconditions 4.4.1).
3. Develop an old-growth protection policy that incorporates the previously defined ecological and biological significance, that is enforceable, performance based and accountable to the public.

#### **E. Summary of Conditions**

During the Phase Three (2000) review, the assessment team observed that MRC has made significant progress to meet several Phase Two (1999) conditions. Comments on the progress observed on meeting these conditions appear in the brackets. Because of the significant improvements made by MRC, some Phase Two (1999) conditions have been removed or re-written for improved clarification and intent.

#### **4.1.1 Laws and Treaties**

1. **[Significant improvements noted in THP writing, condition re-written under Silviculture 4.4.2 above]** By the end of year 1, MRC must conform to the intent of the regulatory guidelines of the California Forest Practices Rules. MRC must establish criteria to ensure that stocking requirements are met and ensure that harvest sites already understocked of conifers will not be further depleted.

#### **4.3.1 Management Plan**

1. **[Ahead of schedule, replaced with condition 4.4.1 above]** Maintain commitment to meet or exceed the complete inventory of the ownership by 2003 timeline.
2. **[Completed- see landscape planning process in the Management Plan]** By the end of Year 1, MRC must develop a spatially explicit harvest schedule based on MRC principles, identifying and protecting non-timber forest, within the appropriate scales of diversity (*within one year after award of certification*).

#### **4.3.2 Monitoring**

1. **[Ahead of schedule- re-written, see 4.3.1 above]** Maintain a commitment to meet or exceed the watershed assessment timeline of 70% completion of the ownership by 2001.
2. **[Ahead of schedule- re-written, see 4.3.1 above]** Develop a timeline for completion of watershed assessments on the other 30% of the ownership (*within 3 months after award of certification*).
3. **[In development, condition re-written, see 4.3.2 and 4.4.6 above]** Develop training procedures to educate foresters and resource staff on the protocols for the watershed assessment process and T & E species, so that resource staff can better integrate the range of watershed, biological and ecological needs into project planning (*within 18 months after award of certification*).

#### **4.4.1 Sustained Yield**

1. **[Moved into condition 4.4.6 above]** By the end of Year 1, MRC foresters must demonstrate greater follow through in the assessment of post-harvest conditions including the mapping and retention of biological legacies. Furthermore, demonstrate that: 1) the biologist's assessments or recommendations are being incorporated into landscape planning and landscape level habitat protection; 2) the physical sciences experts recommendations are being utilized and incorporated into the landscape planning and actual management. See precondition 4.4.1, precondition 4.5.6, condition 4.5.1 and recommendation 4.4.2.

#### 4.4.2 Silviculture

1. **[Progress made, condition was re-written.]** Develop a clearly written policy that specifies criteria to attain greater conifer stocking, size class distribution, and hardwood rehabilitation (or conifer restoration) on a harvest unit basis (*within one year after award of certification*).
2. **[Progress made, condition was re-written.]** Establish criteria for tanoak rehabilitation based on existing conifer stocking by harvest unit, i.e. inventory (*within one year after award of certification*).
3. **[Improvements observed, condition moved to section 4.5.7 Chemical Use above.]** Develop a monitoring program to assess the need for herbicide application of tanoak to improve conifer growth. Demonstrate that the rehabilitation process for the tanoak dominated sites to conifer will improve conifer growth and not create more sites for rehabilitation. Develop a monitoring program to reduce the herbicide dependence systematically over time. Maintain commitment to the proposed alternatives to herbicides study currently proposed (*within 6 months after award of certification*).
4. **[Improvements noted, condition moved to 4.3.1 Management Planning above.]** Utilize existing research on local forest ecology and disturbance regimes to assist in prescription design (*within 18 months after award of certification*).

#### 4.4.4 Harvest Practices

1. **[Completed- see Management Plan pages 35-39]** Set policies to limit activities on highly erosive and steep slopes, headwalls and inner gorges, as described in the watershed analysis, where available, and if not available on slopes greater than 100% or 45 degrees (*within six months after award of certification*).
2. **[Completed- see Management Plan pages 35-39.]** Develop protocols which specify equipment and log suspension requirements on highly erosive and steep slopes, perhaps through use of the erosion hazard maps (*within six months after award of certification*).
3. **[Completed with new standards for logging contracts and training programs.]** Develop policies to minimize damage to regeneration and younger cohorts, including incentives, which could be built into contractual agreements with loggers (*within six months after award of certification*).
4. **[Completed with new standards for logging contracts and training programs.]** Develop protocols to minimize site degradation resulting from soil compaction, residual stand damage, impacts on all stream classes and down woody debris fragmentation. These protocols should include specifications for locations of yarding and skid routes to minimize damage to soil, regeneration, and residual trees; incorporate ecological functions; and biological legacies. Include a skid trail location policy that reduces the density of skid trails (~10% of the area) and includes abandoning old skid trails especially in areas where access will be permanently eliminated. (*within one year after award of certification*).
5. See conditions 4.3.2 #1, 4.4.1 #1, 4.5.1 #2

#### 4.4.6 Supervision

1. **[Partially Completed, re-written see 4.4.6 above]** Develop a process in which the forester (or project planner) is involved with the implementation process and monitoring of the completed project (*within six months after award of certification*). See condition 4.4.1.

#### **4.5.1 Biodiversity –Landscape Level**

1. **[Incomplete. New staff ecologist will be addressing this condition.]** By 2003, develop field sampling protocols and begin to conduct a comprehensive inventory of plant, wildlife and special habitats across the ownership beyond T&E species. Display the results of such inventories on maps or GIS to integrate with harvest plans. Management of Fish and Wildlife Habitats in Forests of Western Oregon and Washington (1985) can be used as an example. See precondition 4.3.1.
2. **[Significant improvements made, re-written into condition 4.4.6 Supervision above]** Integrate biologists into the timber harvest planning, implementation and monitoring program (*within six months after award of certification*).
3. **[Significant progress made in conservation easement development, condition re-written.]** Establish a policy in which the WLPZ's and other unique biological areas are functionally designated to include elements of permanency. This is required for the SmartWood 5 year contract, during which time permanent protections will be established and will be part of the annual audit.
4. **[Completed.]** Develop a policy which defines the number of and type of legacy trees which must be maintained in old-growth and sensitive upslope management areas (*within six months after award of certification*).
5. See condition 4.3.2.

#### **4.5.2 Biodiversity- Species Level**

1. See conditions 4.5.1.

#### **4.5.4 Stream Ecosystems**

1. See precondition 4.4.1, condition 4.3.2, condition 4.4.4 #2,3,4.

#### **4.5.7 Chemical Use**

1. See condition 4.4.2 #2 and #3.

#### **4.6.1 Community Relations**

1. **[Re-written]** Bring current public relations efforts in line with actual management practices; let actions speak more for themselves. Demonstrate reassessment of the content, organizational forma, and purpose of MRC's current community outreach/public relations efforts. Use the reassessment to develop principles to guide the company's future outreach efforts towards meaningful community involvement in management planning (*within six months after award of certification*).

#### **4.8.1 Chain-of-Custody**

1. **[Standard FSC Requirement]** *Before the first load of logs are shipped*, mark each load of logs with a load ticket that clearly and visually distinguishes the certified status of the load to the buyer. Include the FSC approved registration code assigned by SmartWood in the shipment or other relevant documentation related to certified sales (i.e. load ticket, log purchase agreement, etc.).
2. **[Standard FSC Requirement]** *At each annual audit within the certification period*, prepare a report, which summarizes volume, species, grade and sources of certified logs sold to outside purchasers.