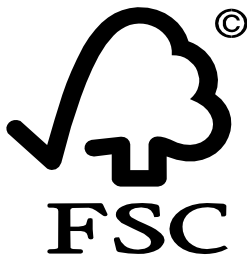




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**Rainforest  
Alliance**

*SmartWood Program*

Forest Management  
**Certification Reassessment**  
Report for:

**Mendocino Redwood Company,  
LLC**  
In  
**Ukiah, California, USA**

Report Finalized:	Nov. 9, 2010
Audit Dates:	Aug. 23-27, 2010
Audit Team:	Karen Brenner Tawney Lem Robert Hrubes Kyle Meister

Certificate code(s):	SW-FM/COC-000128
Certificate issued:	November 15, 2010

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## INTRODUCTION

This report presents the findings of an independent certification assessment conducted by a team of specialists representing the SmartWood Program of the Rainforest Alliance. The purpose of the assessment was to evaluate the ecological, economic and social performance of Mendocino Redwood Company's forest management as defined by the Forest Stewardship Council.

This report contains four main sections of information and findings and several appendices. The whole report plus appendix I will become public information about the forest management operation that may be distributed by SmartWood or the Forest Stewardship Council (FSC) to interested parties. The remainder of the appendices are confidential, to be reviewed only by authorized SmartWood and FSC staff and reviewers bound by confidentiality agreements.

The purpose of the SmartWood program is to recognize conscientious land stewardship through independent evaluation and certification of forestry practices. Forestry operations that attain SmartWood certification may use the SmartWood and FSC labels for public marketing and advertising.

### Standard Conversions

1 mbf = 5.1 m<sup>3</sup>  
1 cord = 2.55 m<sup>3</sup>  
1 gallon (US) = 3.78541 liters

1 inch = 2.54 cm  
1 foot = 0.3048 m  
1 yard = 0.9144 m  
1 mile = 1.60934 km  
1 acre = 0.404687 hectares

1 pound = 0.4536 kg  
1 US ton = 907.185 kg  
1 UK ton = 1016.047 kg

# 1. SCOPE OF THE CERTIFICATE

## 1.1. Scope of the certificate

Mendocino Redwood Company's (MRC) forests comprise 92,361 hectares of timberland in Mendocino and Sonoma Counties, California, USA. SmartWood assessed the entire ownership for combined Forest Stewardship Council (FSC) forest management and chain of custody certification. Mendocino has control over the entire property with regards to forest management operations.

## 1.2. Exclusion of areas from the scope of certificate

<b>X</b>	Applicability of FSC partial certification and excision policy	
<input checked="" type="checkbox"/>	All forest land owned or managed by the FME is included in the scope of this evaluation.	
<input type="checkbox"/>	FME owns and/or has management involvement in other forest land/properties (forest management units) not being evaluated. <b>If yes, complete all sections below.</b>	
<input type="checkbox"/>	Is any portion of the forest management unit (s) under evaluation for certification being excised from the scope of the evaluation? <b>If yes, complete all sections below.</b>	
Comments / Explanation for exclusion/excision:		
Control measures to prevent contamination		
<b>Other Forest area</b>	<b>Location</b>	<b>Size (ha)</b>

## 2. ASSESSMENT PROCESS

### 2.1. Certification Standard Used

Forest Stewardship standard Used for assessment:	US Standard (v1.0) July 8, 2010
Local Adaptation: (if applicable)	

### 2.2. Assessment team and qualifications

Auditor Name	Karen Brenner	Auditor role	Co-team Leader, Forester SmartWood program of the Rainforest Alliance
Qualifications:	Staff Auditor for SmartWood, responsible for performing Chain-of-Custody and Forest Management assessments and audits, and conducting auditor training. Over the past 10 years, Karen Brenner (B.S. Forestry) has conducted numerous CoC audits and assessments as well as 22 forest management audits and assessments for SmartWood. Karen attended CoC and FM lead assessor training conducted by SmartWood. In addition to consulting with SmartWood, Karen has over a decade of experience as a field forester implementing and managing timber sales, developing silvicultural prescriptions, suppressing forest fires, and managing pre-commercial timber and reforestation programs for the US Forest Service and Nez Perce Tribe.		
Auditor Name	Dr. Robert J. Hrubes, Ph.D	Auditor role	Co-team Leader, Forester Scientific Certification Systems
Qualifications:	Dr. Hrubes is a California registered professional forester (#2228) and forest economist with over 30 years of professional experience in both public and public forest management issues. He is the principal architect of the SCS Forest Conservation Program, accredited by the Forest Stewardship Council since 1995. He is currently Senior Vice-President of Scientific Certification Systems. Dr. Hrubes has served as lead auditor for a large number of SCS Forest Conservation Program certification evaluations of North American public forests, industrial forest ownerships and non-industrial forests, as well as operations in Scandinavia, Chile, Brazil, Papua New Guinea, Japan, Malaysia, Australia and New Zealand. Dr. Hrubes holds graduate degrees in forest economics, economics and resource systems management from the University of California-Berkeley and the University of Michigan. His professional forestry degree (B.S.F. with double major in Outdoor Recreation) was awarded from Iowa State University.		
Auditor Name	Tawney Lem, B.A. Political Science	Auditor role	Auditor, Social Scientist
Qualifications:	Team member; First Nations Assessor - Tawney Lem is an assessor focused on Aboriginal and socio-economic issues. Since 2003 she has been contracted by SmartWood on 35 assessments, reassessments, annual audits and gap analyses in BC, Alberta, Manitoba, and Ontario. She has also conducted a certifying body accreditation audit with Accreditation Services International. Tawney is an independent consultant providing policy development and analysis services in the areas of governance and land use. The current focus of her work is assisting First Nations with treaty land selection, and as a LEED Accredited Professional is also working on the development of an eco-resort on the West Coast of BC. Ms. Lem's bachelor's degree in Political Science is from the University of British Columbia,		

	and she has taken SmartWood's Lead Assessor training course.		
Auditor Name	Kyle Meiste M.F.	Auditor role	Auditor, Forester
Qualifications:	Team member, Scientific Certification Systems. Mr. Meister is a Certification Forester with Scientific Certification Systems. He has been with SCS for two years and has conducted FSC pre-assessments, evaluations, and surveillance audits in Brazil, Panama, Mexico, Indonesia, India, and all major forest producing regions of the United States. He holds a B.S. in Natural Resource Ecology and Management and a B.A. in Spanish from the University of Michigan; and a Master of Forestry from the Yale School of Forestry and Environmental Studies. Mr. Meister has experience as an environmental educator and natural resource consultant in the U.S., Mexico, Ecuador, Costa Rica, Colombia, and Brazil. He is responsible for reviewing all of SCS' forest management reports from Latin America. He is a member of the Forest Guild, Society of American Foresters, and International Society of Tropical Foresters.		
Auditor Name	Liz Forward, M.F.	Auditor role	Observer, Scientific Certification Systems
Qualifications:	Ms. Forward is a Program Associate in the Legal Harvest program with Scientific Certification Systems. She holds a B.A. in Human Biology from Stanford University, and Masters of Environmental Management and Masters of Forestry degrees from Duke University's Nicholas School of Earth and Environmental Science. She has experience in rural land use planning and community based environmental management in Colorado and Montana, and has worked in forest certification and sustainable agriculture in Indonesia.		

### 2.3. Assessment schedule (including pre-assessment and stakeholder consultation)

Date	Location/ sites visited	Auditors present	Activities/ notes
8/1/10 to 8/23/10	Auditor Offices	Brenner Hrubes Lem Meister	Stakeholder interviews and document review.
8/23/10	MRC Offices, Ukiah	All auditors	Opening meeting, introductions, MRC presentations, audit site selection.
	Big River Tract: Dietz Gulch THP	Hrubes, Brenner, Meister, Forward	Site visit– mixed variable retention and transition silviculture, active logging, cable yarding, logging contractor interviews.
	Ukiah	Lem	Stakeholder interviews and meetings
	Fort Bragg	All auditors	Public meeting at the Harbor Lite Hotel meeting room, 7 – 8:45pm.
8/24/10	Rockport Tract: Middle Fork emergency exemption harvest	Hrubes, Brenner, Forward	Site visit – Middle fork THP, old LP clearcuts, old hack and squirt, active logging, emergency harvest with fire damage, Milk Vetch site, variable retention, seed tree removal, tractor logging and skid trails.
	West Navarro Tract: Summer	Meister, Lem	Site visits – stream crossings, seed

	Crossing, Payment in Sap THP, Bad Rat's River THP, Fist Full of Trees THP, Kelly's Bridge		tree removal, landing/road decommissioning, channel restoration, variable retention harvest, 50/50 variable retention/ single tree selection-transition harvest, contractor interviews, and property boundary.
8/25/10	Garcia River Tract: Miller road THP, Fleming Creek Rd Annapolis Tract: Knob Hill THP	Hrubes, Brenner, Forward	Site visits – stream buffers, decommission road, restoration activities, planting, tan oak treatment – both past and recent, burned area with harvest, interviews with area foresters, culvert removal and bridge upgrade (Fleming Creek Rd). VR and transition harvest with rehab units, hack and squirt.
	South Coast and Albion Tracts: Pygmy Forest, Emergency harvest, Gunnery Gulch, Anderson Gulch	Meister, Lem	Site visits – Pygmy Forest, property boundary, Large Class 3 to Class 2 buffer inspection, bridge replacement and channel restoration, Large Class 2 to Small Class 2 buffer inspection, Northern spotted owl site, and deeded water well.
8/26/10	Masonite Road, Navarro East: Culvert removal/bridge upgrade, Ipecac THP and hedge farm visit.	All auditors	Site visits – culvert removal, road construction, tractor skidding, contractor interviews, Alternative Prescription site – took out large trees and thinned. Hedge farm visit, forest clearing discussion.
	MRC Ukiah offices	All auditors	Auditor deliberation
8/27/10	MRC Offices, Ukiah	All auditors	Auditor deliberation, closing meeting.

Total number of person days used for the assessment:24  
= number of auditors participating 4 X number of days spent in preparation, on site and post site visit follow-up including stakeholder consultation 6.

## 2.4. Evaluation strategy

The 2010 recertification audit team was comprised of a joint team of auditors from SmartWood and Scientific Certification Systems (SCS), who conducted all opening and closing meetings, field visits, office visits, and deliberation of findings jointly. For efficiency, the team split during some forest site visits, so that a greater variety of sites could be visited during the audit. Ms. Tawney Lem, who was responsible for the social science and stakeholder consultation portions of the assessment, split from the audit team on several occasions to conduct more targeted stakeholder interviews. The audit team visited MRC's main office in Ukiah, along with a variety of field sites determined to represent the diversity of activities conducted on the FMU. Field sites were selected in order to provide observations of: Tracts managed by different foresters; Different logging

systems; Different habitat types or site productivity; Implementation of special protection measures; Riparian and stream protection; Site preparation activities; Active harvesting; Post harvest clean-up; Opportunity to interview stakeholders. Documents were reviewed both before and during the audit by all team members, and all audit team members attended a public meeting in Fort Bragg.

**List of management aspects reviewed by assessment team:**

Type of site	Sites visited	Type of site	Sites visited
Bridge construction	1	Fire Salvage	3
Site Preparation	11	Bridges/stream crossing	10
Redwood Hedge Farm	1	Chemical storage	1
Planned Harvest site	8	Wetland	3
Ongoing Harvest site	7	Steep slope/erosion	4
Completed logging	15	Riparian zone	12
Planting site	4	Planting	8
Local community	3	Weed control	2
Buffer zone	3	Natural regeneration	9
Skidding/Forwarding	5	Endangered species	3
Uneven-aged cutting	20	Wildlife management	3
Commercial thinning	1	Special management area	1
Old Growth	2	Recreational site	1

**2.5. Stakeholder consultation process**

The purpose of the stakeholder consultation strategy for this reassessment was threefold:

- 1) To ensure that the public is aware of and informed about the reassessment process and its objectives;
- 2) To assist the field reassessment team in identifying potential issues; and,
- 3) To provide diverse opportunities for the public to discuss and act upon the findings of the reassessment.

This process is not just stakeholder notification, but wherever possible, detailed and meaningful stakeholder interaction. The process of stakeholder interaction does not stop after the field visits, or for that matter, even after a certification decision is made. SCS and SmartWood welcome, at any time, comments on certified operations and such comments often provide a basis for field assessment.

At the reassessment team’s request, MRC compiled a list of American Indian groups, agencies, non-government organizations (e.g. environmental groups, community groups, activists), contractors, industry groups, mills, landowners, and known members of the public with an interest in MRC lands. A public notice of the reassessment was developed and distributed to this list as well as the SmartWood and SCS national stakeholder lists. The notice included information about the scope of the reassessment, reassessment steps and schedule, ways for the public to comment, and the contact information for the reassessment team, MRC and FSC.

A separate letter was sent to each of the American Indian groups with known interests in the forest, providing information about the reassessment and seeking an opportunity to meet or talk by phone. The timing of the mail-outs was set to ensure interested parties were notified 60 days prior



to the team's field visit. The notice was also posted on the SmartWood and FSC Canada websites. From the MRC list alone, the notices were delivered to 117 individuals or organizations.

One week before the audit a public service announcement was placed in the Fort Bragg Advocate, and read aloud on the local public radio station KZYX, announcing the reassessment, the public meeting and the opportunity to provide comments to the reassessment team on MRC's operations. Contact with the team was encouraged by providing the e-mail addresses and phone numbers for Richard Hrubes, the SCS team leader and Karen Brenner, the SmartWood Team Leader. The FSC website was included for information about the FSC Standards.

Prior to the reassessment, the team members made phone calls to a variety of individuals to either conduct phone interviews or to arrange in-person interviews during the fieldwork component of the reassessment. The interview sampling was designed to attempt contact with numerous people within each interest group, and to attempt contact with all American Indian groups. The team received several emails or calls as a result of the notices, and the team followed up with a phone or in-person interview with all of these people that were interested in doing so. Where respondents suggested field sites that should be visited the team included these areas in their field site review plan or followed-up with MRC on the issues brought forward.

A public meeting was held on August 23 in Fort Bragg. This meeting provided information to attendees about the reassessment process and the FSC Standard, and provided attendees with the opportunity to comment on MRC's operations. Four people attended the public meeting. The table below provides the number of individuals of each stakeholder type who were interviewed by the team. These individuals were interviewed for one or more of the following reasons:

- They were chosen by the team from the MRC contact list as a representative of a particular group of interests or as people who represented several different interests; or,
- They were identified by others as people with information and an informed opinion about MRC; or,
- They contacted the team by phone or e-mail in response to the public notice and requested to be interviewed.

<b>Stakeholder Type (NGO, government bodies, local inhabitant, contractor etc.)</b>	<b>Stakeholders Notified (#)</b>	<b>Stakeholders consulted directly or provided input (#)</b>
American Indian groups	16	6
Local State agencies	9	4
Local Federal agencies	3	3
NGOs	85	10
Contractors	17	6
Industry, Mills & Landowners	13	2
Interested Public	24	4
Forest Stewardship Council	4	0
State and Federal Agencies	17	0
National ENGOS	50	0
National Forest Products and Forestry NGOs	30	0
National Forest Products Companies	60	0
National Academic Institutions	29	0
Other	23	0

### 3. ASSESSMENT FINDINGS AND OBSERVATIONS

#### 3.1. Stakeholder comments received

The stakeholder consultation activities were organized to give participants the opportunity to provide comments according to general categories of interest based upon the assessment criteria. The table below summarizes the issues identified by the assessment team with a brief discussion of each based upon specific interview and/or public meeting comments.

Summary of Stakeholder Comments and Responses from the Team Where Applicable		
FSC Principle	Stakeholder comment	SCS/SmartWood response
<b>P1: FSC Commitment and Legal Compliance</b>	Many agencies commented that MRC is a cooperative company that is committed to meeting and exceeding their legal requirements. Agency requests are readily accommodated.	No response needed.
	Several stakeholders expressed concern about marijuana being grown on MRC lands.	MRC has taken several steps to prevent marijuana gardens on their property, including the use of gates, security patrols and signs. Flights are also made to identify gardens. MRC works cooperatively with county law enforcement when gardens are found. These actions conform to Criterion 1.5 of the FSC US Standard, which requires MRC to take measures to prevent illegal and unauthorized activities on the forest management unit.
<b>P2: Tenure &amp; Use Rights &amp; Responsibilities</b>	One stakeholder expressed concern about MRC's easement through Big River Park. The stakeholder felt that hauling timber through the park was incompatible with the interests of the park. There is not a well understood process to bring resolve to this issue.	MRC has a legal right to the Big River easement. While the easement to use the road through the Big River Park is outside of the FMU, the team reviewed this issue given its relevancy to MRC's relationship with its neighbors. MRC communicated that it has not used the easement in several years, and is exploring options to not use the easement in the future. The team encourages MRC to continue dialogue with the Park. This issue does not constitute a non-conformance with the FSC US Standard.
<b>P3 –</b>	One Tribe expressed appreciation	The re-assessment team reviewed

<b>Indigenous Peoples' Rights</b>  <b>P3 – Indigenous Peoples' Rights Continued</b>	<p>for a joint project that has given the tribe access to forest resources on MRC land, and that positive inroads have been made with their relationship with the company.</p>	<p>the joint project and agrees that it is a good example of involving Tribes in the management of resources of interest to them. This project is consistent with the requirements of Criterion 3.2 of the FSC US Standard.</p>
	<p>Several Tribes expressed concern about consultation being reactive and limited to the THPs.</p>	<p>MRC has expressed a willingness to have greater engagement with the Tribes. Tribal representatives commented that some of the Tribes are just getting their historic preservations offices set up, so response from the Tribes is anticipated to increase in the future. CAR 2010.12 and 2010.13 have been written to address the requirement of consulting Tribes on High Conservation Values.</p>
	<p>One individual commented that he is a member of a federally unrecognized Tribe, and that MRC has not had contact with the Tribe.</p>	<p>FSC's definition of Indigenous Peoples includes "groups that have not been officially recognized by the Federal government." The re-assessment team found that MRC has not yet identified and contacted all relevant federally unrecognized Tribes. CAR 2010.1 has been written.</p>
<b>P4: Community Relations &amp; Workers' Rights</b>	<p>Several stakeholders commented that MRC is open to discussing their plans and activities with members of the public, and does a good job consulting with neighbors.</p>	<p>The re-assessment team found that MRC demonstrates a corporate culture of transparency, which facilitates the public being able to comment on management activities. MRC's consultation methods are consistent with the requirements of Criteria 2.2 and 4.4 of the FSC US Standard.</p>
<b>P5: Benefits from the Forest</b>	<p>One stakeholder commended MRC for maintaining a low annual cut on the landbase.</p>	<p>The reassessment team concluded that the annual harvest is well below the annual allowable cut.</p>
	<p>One stakeholder expressed concern that MRC has a near monopoly, and that the companies could control the industry in the area, thus putting pressure on smaller owners.</p>	<p>This scenario is evident throughout most communities in the United States in which the wood products industry has historically played an important role in the local economy. The broader economic condition has placed significant pressure on the forest products industry and resulted in the closing of mills as well as other businesses. This situation is</p>

		beyond the control of MRC and is not applicable to the FSC Standard.
<b>P6: Environmental Impact</b>	Several stakeholders commented that MRC has been cooperative in working with other groups (e.g. joint stream restoration, data sharing).	No response needed.
	One stakeholder commended MRC for their proactive attitude toward salmonid habitat enhancement.	No response needed.
	Several stakeholders commended MRC on their efforts to rehabilitate the landbase.	No response needed.
	One stakeholder commended MRC for their old tree retention policy.	No response needed.
	Several stakeholders expressed concern about herbicide use by MRC: <ul style="list-style-type: none"> <li>▪ Levels of herbicide used are higher than desired;</li> <li>▪ A more potent herbicide (Imazapyr) has been used in recent years;</li> <li>▪ Herbicides are used to automatically, instead of looking at other alternatives.</li> <li>▪ Concern that the herbicide use documented on the MRC website does not accurately reflect actual herbicide use on the ground.</li> </ul>	MRC's herbicide use is primarily centered on the control of tanoak. The principal driver of choosing herbicide over harvesting tanoak is the poor market for tanoak products. Current options for tanoak utilization are below break-even prices. MRC's current attempts to market tanoak have been hindered by state export regulations. MRC has reduced the amount of active ingredient (imazapyr) necessary to control tanoak as much as possible. Further experimentation with lower doses and other synthetic and organic chemicals have proven ineffective. When conifer stocking is high enough and tanoak densities are relatively low, MRC cuts or leaves tanoak rather than applying herbicides. MRC's herbicide use is expected to decrease as more stands are restored to historical conifer stocking. Finding markets for tanoak at or above break-even prices potentially could reduce herbicide use further. This issue does not constitute a non-conformance to the FSC Standard.
	One stakeholder expressed concern about remnant stands being logged, leading to an	Interviews with the inventory forester regarding harvest modeling indicated that there is not an under

<b>P6: Environmental Impact Continued</b>	underrepresentation of the 60 year age class.	representation of the 60 year age class.
	One stakeholder commented that MRC should implement activities that prioritize coho salmon, not just timber harvesting.	There are three principal ways in which MRC's management practices improve conditions for anadromous fish populations. One is through protecting and respecting established riparian buffer zones and recruitment of snags throughout watersheds that may end up in streams as large woody debris. Two, MRC's upgrading of stream crossings and hydrological restoration activities are aimed at removing barriers to fish passage and restoring natural channel processes. Where possible, MRC closes stream crossing and restores the natural stream grade. MRC prefers locating roads in uplands where impacts to fish habitat are less. SCS/SW observed a large-scale replacement in which a culvert was being replaced with a bridge and two stream channels were being restored. One of the channels was completely blocked off to fish passage. Installation of the bridge and channel restoration removed this barrier. Thirdly, MRC conducts monitoring on many levels that has implications for fish populations. It conducts watershed inventory and analysis on a twenty year cycle across the ownership and includes road inventories and stream channel profiles. This allows MRC to prioritize stream crossing upgrades and channel restoration, as well as implement measures to reduce sediment transport from roads. MRC also monitors stream temperature, precipitation, red-legged frog and fishes. MRC's watershed analyses and aquatic habitat monitoring activities are available on its website for stakeholder review and comment. Its adaptive management responses to monitoring include restoration of depths of a pond where amphibians once bred,

<b>P6: Environmental Impact Continued</b>		increasing canopy retention, and designated more no-harvest zones. This issue does not constitute a non-conformance to the FSC Standard.
	One stakeholder expressed concern that MRC had an injunction dissolved in 2008 for the Elk area, and subsequent logging led to the extinction of the mountain beaver in that area.	The original injunction was put in place approximately 10 years ago. As per the legal process, MRC sought, and achieved a judge's approval to pursue harvest plans in the area. Once this was achieved, MRC also sought, and was successful at having the injunction dissolved. As part of the harvest planning, MRC surveyed all potential mountain beaver potential habitat, but no burrow systems were found. This issue does not constitute a non-conformance with the FSC US Standard.
	One stakeholder expressed concern that MRC had poisoned a eucalyptus forest planted by the previous landowner, and the stand is now a fire hazard.	Eucalyptus is an exotic species that is not well suited to the site. In alignment with the FSC Standard, MRC is removing the eucalyptus from the forest in order to move toward a condition that is in alignment with the native species and natural disturbance regimes. There is a temporary increase in fuels; however this increase is not outside of the range of normal fuel loads that could arise from natural disturbances and the fuel load will dissipate with age.
	One stakeholder expressed concern about slope stability in the Albion watershed during rainy conditions.	The results of MRC's watershed analysis are included on its webpage at <a href="http://www.mrc.com/Reports-WatershedAnalysis.aspx">http://www.mrc.com/Reports-WatershedAnalysis.aspx</a> . In the prescriptions section, MRC has identified active rock slides and unstable slopes. These areas have been prescribed as no-harvest or high canopy retention areas, unless a registered professional geologist is consulted prior to modifying management prescriptions. This issue does not constitute a non-conformance to the FSC Standard.  The audit team observed some

<b>P6: Environmental Impact Continued</b>		recent salvage harvests in the Albion that were done after the 2008 lightning complex fires. Riparian areas were largely intact (>50% canopy cover) and salvage was done using yarder operations upslope from these areas. Some non-harvested trees died later on and fell, thus exposing some mineral soil. However, these trees fell in many directions and in some areas catch debris. Herbaceous cover and Douglas-fir and Redwood seedlings were also present. Over time, these areas should become reforested and slopes become more stable as canopy cover increases.
	One stakeholder expressed concern that the use of Magnesium Chloride for dust control on roads may have potentially adverse effects on salmonids and broad leaf plants of	Interviews with MRC staff indicate that the dust abatement product is classified as “organic” and internal assessment of the product concluded that there is limited potential for adverse effects on salmonids and broad-leaf plants. The frequent monitoring of water quality is expected to identify potential water quality degradation and the frequent monitoring that occurs along roadways is expected to identify adverse effects on plants if it occurs. This issue does not constitute a non-conformance with the FSC Standard.
<b>P7: Management Plan</b>	One stakeholder commented that MRC administers the management plan exactly as written, and that the company works closely with loggers to ensure this.	No response needed
	Several stakeholders expressed concerns about the HCP process: <ul style="list-style-type: none"> <li>▪ It has taken a long time to develop the plan;</li> <li>▪ An 80 year permit is too long of a term;</li> <li>▪ Once the plan gets to the public review draft it is hard to make changes.</li> </ul>	The HCP is voluntary and regulated by federal agencies. MRC recognizes the public’s concern over the 80 year permit and making changes to the draft. In response to these concerns, MRC held two public meetings (May 25 and 26, 2010) about its HCP and its performance to the FSC standard. This issue does not constitute a non-conformance to the FSC Standard.

<b>P8: Monitoring &amp; Assessment</b>	One stakeholder expressed concern that the effects and success of stream restoration particularly in salmonid habitat areas were not being adequately monitored.	MRC's aquatic staff participates in fish counts every year. The fluctuations in population trends are consistent with those observed in other areas of the North Coast. This issue does not constitute a non-conformance with the FSC Standard.
<b>P9: Maintenance of High Conservation Value Forest</b>	Several Tribes commented that they have special areas that could be considered HCV, but discussions about these areas have not yet taken place with MRC.	The re-assessment team confirmed that MRC has not yet consulted with Tribes as part of the HCVF process. CAR 2010.12 has been written.
<b>P10 - Plantations</b>	Not applicable	Not applicable

### 3.2. Main strengths and weaknesses

<b>Principle/ Subject Area</b>	<b>Strengths Relative to the Standard</b>	<b>Weaknesses Relative to the Standard</b>
<b>P1: FSC Commitment and Legal Compliance</b>	<ul style="list-style-type: none"> <li>MRC clearly demonstrates their commitment to the principles of the FSC through a variety of actions – they sought their original certification almost immediately after beginning operations, have always certified their entire property, and describe certification in numerous documents as being central to their company goals and business model.</li> </ul>	<ul style="list-style-type: none"> <li>No weaknesses were observed related to legal compliance.</li> </ul>
<b>P2: Tenure &amp; Use Rights &amp; Responsibilities</b>	<ul style="list-style-type: none"> <li>MRC strives to maintain an open relationship with the local community and adjacent landowners.</li> <li>Public meetings are held when appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>MRC's current system of tracking use rights relies heavily on area forester's knowledge of specific rights to specific resources within their management area. Adequate protection of use rights would be at risk under this system should new employees be brought on with less tenure on the ownership. See OBS 2010.1 – FSC 2.2.b</li> </ul>



<p><b>P3: Indigenous Peoples' Rights</b></p>	<ul style="list-style-type: none"> <li>• MRC contacts Tribes as required under Forest Practice Rules.</li> </ul>	<ul style="list-style-type: none"> <li>• FSC's definition of Indigenous Peoples includes "groups that have not been officially recognized by the Federal government." However, MRC has only identified and engaged tribes that are federally recognized and there is no evidence that MRC has assessed if there are any tribes that are not federally recognized. CAR 2010.1 – FSC 3.3.a.</li> </ul>
<p><b>P4: Community Relations &amp; Workers' Rights</b></p>	<ul style="list-style-type: none"> <li>• A very positive development that the auditors have noted over the course of a decade of certifying MRC is the general change in tenure of public relations. From the comments received at the stakeholder meeting and in the field, it seems people are more comfortable today than they were before with forest management in the area, and credit MRC's management style with forwarding this positive change in attitude.</li> <li>• MRC demonstrates a preference for local goods and services, and offers a competitive pay scale.</li> <li>• Staff qualifications are generally excellent. Many employees have a long tenure with the company and are intimately familiar with the tract of land being managed.</li> </ul>	<ul style="list-style-type: none"> <li>• Safety requirements are included in the agreements signed with contractors. However, contractor practices were witnessed that were not in compliance with these agreements (e.g. inconsistent use of personal protective equipment, workers that had no First Aid training or whose First Aid credentials had expired). CAR 2010.2 FSC 4.2.b.</li> <li>• MRC has yet to fully complete an assessment of the social impacts of management activities on the local community. See CAR 2010.3 - FSC 4.4.a.</li> </ul>
<p><b>P5: Benefits from the Forest</b></p>	<ul style="list-style-type: none"> <li>• Cost consciousness has increased - forests are managed for long-term economic viability with due diligence given to environmental sustainability and careful oversight of costs.</li> <li>• Harvest levels are not increased</li> </ul>	<ul style="list-style-type: none"> <li>• MRC has not adequately demonstrated knowledge of its operation's effect on the local economy as it relates to existing and potential markets for a</li> </ul>

	<p>beyond average annual allowable harvests to meet increases in demand.</p> <ul style="list-style-type: none"> <li>• MRC is investing in the long-term returns on the property by prescribing rehabilitation silvicultural prescriptions to return stands to a more natural conifer to hardwood ratio.</li> <li>• MRC's forest inventory system is very robust. The use of sustainability units in breaking up and then aggregating harvests increases the integrity of AAC system and calculations.</li> </ul>	<p>wide variety of timber and non-timber forest products and services. CAR 2010.4 FSC 5.4.a.</p>
<p><b>P6: Environmental Impact</b></p>	<ul style="list-style-type: none"> <li>• Rare and endangered plants and animals are safeguarded to the highest standard on company lands. Due diligence clearly goes into all RTE species monitoring, and although much of this work is legally mandated, MRC conducts this work with highly skilled in-house staff, as opposed to contracting it out.</li> <li>• Road management is exemplary for the forest products industry, and erosion is managed and monitored to mitigate sediment loading. Numerous culvert removals and bridge installations have increased anadromous fish habitat.</li> <li>• Interviews with staff biologists demonstrate an attitude toward monitoring that not only complies with what's legally required, but looks outside the box in terms of innovative management ideas, such as songbird surveys, raptor habitat mapping, etc.</li> <li>• Interviews with area foresters showed they are knowledgeable about RTE species and their locations, and that they act upon that knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>• No overall management strategy for managing invasive species was observed during the audit. See CAR 2010.5 FSC 6.3.h.</li> <li>• MRC has not distinguished between HCVEs and RSAs in its management approach and in its documentation of both types of special management areas in the management plan and appurtenant maps. Therefore, the RSA assessment (Indicator 6.4.a) has not been reviewed and updated in order to determine if the need for RSAs has changed. CAR 2010.6-FSC 6.4.d.</li> <li>• The stream buffer policy, as per the California Forest Practice Rules, do not always comply with the FSC stream management buffer zones required on FSC Category B streams. CAR 2010.7 - FSC</li> </ul>

		<p>6.5.e.2</p> <ul style="list-style-type: none"> <li>• Despite the efforts by MRC to provide each contractor with spill kits at the beginning of the 2010 field season, several contractors were found to not have spill kits on site or to not know where to find the spill kits on site. CAR 2010.8 - FSC 6.7.a</li> <li>• Areas previously occupied by natural forests have been cleared for the establishment of a hedge farm, which meets the FSC definition of a non-forest use. CAR 2010.9 - FSC 6.10.b, c. &amp; e.</li> </ul>
<p><b>P7: Management Plan</b></p>	<ul style="list-style-type: none"> <li>• MRC's Management Plan and Option A are easily available to the public via the website.</li> <li>• The website is excellent, with all pertinent information easily accessible, and is exemplary for the forest products industry.</li> </ul>	<ul style="list-style-type: none"> <li>• The audit team noted a lack of emphasis on exemplary logging skills. While poor logging skills were not observed by the team, several issues encountered - whether specific to contractors' skills, residual stand damage, unnecessary skid trail width and soil disturbance, or a few safety concerns observed by logging contractors (i.e. no first aid kit on site) may have been due to insufficiently supervised or less experienced logging contractors. See OBS 2010.4 FSC 7.3.a.</li> <li>• The management plan does not describe MRC's</li> </ul>

		stakeholder consultation process. CAR 2010.10 – FSC 7.1.r.
<b>P8: Monitoring &amp; Assessment</b>	<ul style="list-style-type: none"> <li>• HCP process will likely lead to more frequent, widespread and robust monitoring of many landscape and property features, such as invasive species, and better coordination and consultation with outside experts.</li> <li>• A clear summary and thorough description of MRC’s many monitoring programs are available on the website.</li> <li>• The commitment to the monitoring of non-timber resources (i.e. wildlife, water, roads, stream channels) is evident by the resources allocated to the Forest Sciences Department. In addition to conducting the monitoring required by the state and federal governments, interviews with the Forest Science staff (biologists &amp; hydrologists) demonstrates a proactive and innovative approach to monitoring that reaches beyond the legal requirements.</li> <li>• The degree to which MRC values the FSC certification process as a monitoring tool for improving the company’s management is commendable. It is clear from staff interviews throughout the company that the internal monitoring conducted by the staff as well as the monitoring and feedback received from the audit team is thoughtfully reviewed in the context of working toward the goal of continual improvement.</li> <li>• The degree to which MRC transparently reports to the public the results of monitoring via the company website is exemplary and more typical of the reporting found on public ownerships.</li> </ul>	<ul style="list-style-type: none"> <li>• MRC has not yet developed a monitoring mechanism to assess the socio-economic impacts of MRC’s operations (as part of the Social Monitoring Concern Matrix). See CAR 2010.11 – FSC 8.2.d.3.</li> </ul>
<b>P9: High Conservation Value Forests</b>	MRC management protects residual old-growth trees, stands, and where feasible, creates conditions that will lead to late seral	<ul style="list-style-type: none"> <li>• The process of designating sites for the MRC Reserve System</li> </ul>

	habitats.	did not include adequate consultation or documentation, nor did it distinguish between FSC Representative Sample Areas and FSC HCVF. This has led to ongoing confusion over the intent, planning, and management for both RSAs and HCVFs on MRC land. See CAR 2010.12 – FSC 9.1.a and b., CAR 2010.13 – FSC 9.2.a., and CAR 2010.6 - FSC 6.4.d.
<b>P10: Plantations</b>	NA	NA
<b>Chain of Custody</b>	<ul style="list-style-type: none"> <li>The Chain-of-Custody system was found to be functionally in compliance with the exceptions noted under the weaknesses.</li> </ul>	<ul style="list-style-type: none"> <li>The written chain-of-custody procedures are lacking several key components and the claim used on the truck ticket is “FSC 100%” rather than “FSC Pure”. See CAR 2010.14</li> </ul>

### 3.3. Identified non-conformances and corrective actions

A non-conformance is a discrepancy or gap identified during the assessment between some aspect of the FME’s management system and one or more of the requirements of the forest stewardship standard. Depending on the severity of the non-conformance the assessment team differentiates between major and minor non conformances.

- **Major non-conformance** results where there is a fundamental failure to achieve the objective of the relevant FSC criterion. A number of minor non-conformances against one requirement may be considered to have a cumulative effect, and therefore be considered a major nonconformance.
- **Minor non-conformance** is a temporary, unusual or non-systematic non-conformance, for which the effects are limited.

Major non conformances must be corrected **before** the certificate can be issued. While minor non-conformances do not prohibit issuing the certificate, they must be addressed within the given timeframe to maintain the certificate.

Each non-conformance is addressed by the audit team by issuing a corrective action request (CAR) CARs are requirements that candidate operations must agree to, and which must be addressed, within the given timeframe of a maximum of one year period.

## Evaluation of Open CARS

There are no open CARs to evaluate as part of the 2010 reassessment.

### New Corrective Actions Issued

<b>Nonconformity:</b> FSC’s definition of Indigenous Peoples includes “groups that have not been officially recognized by the Federal government.” However, MRC has only identified and engaged tribes that are federally recognized and there is no evidence that MRC has assessed if there are any tribes that are not federally recognized.	
<b>Minor CAR 2010.1</b>	MRC shall invite consultation with tribal representatives of federally and non-federally recognized tribes in identifying sites of current or traditional cultural, archeological, ecological, economic or religious significance.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 3.3.a</i>

<b>Nonconformity:</b> Safety requirements are included in the agreements signed with contractors. However, contractor practices were witnessed that were not in compliance with these agreements (e.g. inconsistent use of personal protective equipment, workers that had no First Aid training or whose First Aid credentials had expired).	
<b>Minor CAR 2010.2</b>	MRC shall ensure that employees and contractors demonstrate a safe work environment and contracts or other written agreements include safety requirements.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 4.2.b</i>

<b>Nonconformity:</b> MRC has begun work on a Social Monitoring Concern Matrix; however, it is incomplete. Additional groups need to provide input into the matrix, and monitoring data has neither been gathered nor evaluated in order for MRC to understand and, where appropriate, mitigate social impacts in management planning and operations.	
<b>Minor CAR 2010.3</b>	MRC shall demonstrate that it understands the likely social impacts of management activities, and incorporate this understanding into management planning and operations. Social impacts include effects on: <ul style="list-style-type: none"> <li>• Archeological sites and sites of cultural, historical and community significance (on and off the FMU);</li> <li>• Public resources, including air, water and food (hunting, fishing, collecting);</li> <li>• Aesthetics;</li> <li>• Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health;</li> <li>• Community economic opportunities;</li> <li>• Other people who may be affected by management operations.</li> </ul> A summary is available to the CB.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 4.4.a</i>

<b>Nonconformity:</b> MRC has not adequately demonstrated knowledge of its operation’s effect	
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on the local economy as it relates to existing and potential markets for a wide variety of timber and non-timber forest products and services.	
<b>Minor CAR 2010.4</b>	MRC shall demonstrate knowledge of MRC's effect on the local economy as it relates to existing and potential markets for a wide variety of timber and non-timber forest products and services.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 5.4.a</i>

**Nonconformity:** MRC relies on each Area Forester to manage and monitor the invasive species on the forest tracts for which they are responsible. There is no formal or consistent strategy used to assess the risk of invasive species populations based on the extent of the invasive species or the degree of the threat to native species or ecosystems. Additionally, the monitoring of the management practices implemented is of an *ad hoc* nature which makes it difficult to collaborate or assess the effectiveness of treatments across the ownership.

<b>Minor CAR 2010.5</b>	MRC shall assess the risk of, prioritize, and, as warranted, develop and implement a strategy to prevent or control <b><i>invasive species</i></b> , including: <ol style="list-style-type: none"> <li>1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems;</li> <li>2. implementation of management practices that minimize the risk of invasive establishment, growth, and spread;</li> <li>3. eradication or control of established invasive populations when feasible: and,</li> <li>4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species.</li> </ol>
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 6.3.h</i>

**Nonconformity:** MRC has not distinguished between HCVFs and RSAs in its management approach and in its documentation of both types of special management areas in the management plan and appurtenant maps. Therefore, the RSA assessment (Indicator 6.4.a) has not been reviewed and updated in order to determine if the need for RSAs has changed.

<b>Minor CAR 2010.6</b>	MRC shall review and, if necessary, update the Representative Sample Area assessment (6.4.a) in order to determine if the need for RSAs has changed; the designation of RSAs (6.4.b) shall be revised accordingly.  Where warranted, MRC shall distinguish between HCVFs and RSAs in management strategies and documentation of both types of special management areas in the management plan and related maps.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 6.4.d</i>

**Nonconformity:**

1. Most of MRC's streamside management zone buffer widths are in conformance with the FSC standard, with the exception of large and small Class II watercourses, as defined by the California Forest Practice Act, and that the FSC defines as Category B watercourses. MRC's written guidelines specify that a 50-foot buffer may be used adjacent to variable retention harvests on slopes that do not exceed 30%. Similarly, variable retention harvests adjacent to a 75-foot buffer may be used on slopes less than 50%. FSC Category B streams require a

total of a 100-foot buffer. A nonconformance results when an opening associated with a variable retention harvest is immediately adjacent to a FSC Category B stream buffer such that there is limited or no retention in the 50-foot to 100-foot zone from the stream (i.e., on Large Class II SMZs variable retention openings from 75 ft – 100 ft from high water mark on slopes <50%; and on Small Class II SMZs variable retention openings from 50 ft – 100 ft from high water mark on slopes <30%).

2. MRC wishes to justify its variance from the Pacific Coast regional SMZ indicators in the case of small Class II streams adjacent to variable retention harvests or group openings. MRC has not presented supporting documentation that includes a description of the riparian habitats and species addressed in the alternative configuration.

In cooperation with an independent expert in aquatic ecology or closely related field, the CBs must be able to use this information to verify that the variation maintains the overall extent of the buffers and provides equivalent or greater environmental protection than FSC-US regional requirements for those stream segments, water quality, and aquatic species, based on site-specific conditions and the best available information.

MRC maintains that the Habitat Conservation Plan (HCP) review staff, from the federal and state agencies, qualifies as independent experts in aquatic ecology and closely related fields (e.g., hydrology). However, at the time of the 2010 re-certification assessment, the HCP process was incomplete and there is no evidence that the HCP process and independent review specifically includes a comparison and analysis of the variance from the FSC Standard.

<p><b>Minor CAR 2010.7</b></p>	<p>MRC shall seek to fulfill either of the following options as corrective action requests:</p> <p>1. For Category B streams, MRC shall create a 25-foot (slope distance) inner buffer managed according to provisions for inner buffers for Category A streams and a 75-foot (slope distance) outer buffer (for a total buffer of 100 feet) created and managed according to provisions for outer buffers for Category A (6.5.e.1.c); or</p> <p>2. MRC shall provide a written set of information that includes a description of the riparian habitats and species addressed in the alternative configuration and how this variation maintains the overall extent of the buffers and provides equivalent or greater environmental protection than FSC-US regional requirements for those stream segments, water quality, and aquatic species, based on site-specific conditions and the best available information. The Certifying Body will verify if the variations meet these requirements, based on the input of an independent expert in aquatic ecology of closely related field (6.5.e.2).</p>
<p><b>Deadline</b></p>	<p>First annual audit.</p>
<p><b>Reference</b></p>	<p><i>FSC US National Standard, Indicator 6.5.e.1.c (Appendix E Pacific Coast) or Indicator 6.5.e.2</i></p>

**Nonconformity:** Despite the efforts by MRC to provide each contractor with spill kits at the beginning of the 2010 field season, several contractors were found to not have spill kits on site or to not know where to find the spill kits on site.

<p><b>Minor CAR</b></p>	<p>MRC shall ensure that employees and contractors have the equipment</p>
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<b>2010.8</b>	and training necessary to respond to hazardous spills.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 6.7.a</i>

<b>Nonconformity:</b> Areas previously occupied by natural forests have been cleared for the establishment of a hedge farm, which meets the FSC definition of a non-forest use.	
<b>Minor CAR 2010.9</b>	MRC shall demonstrate that:  (6.10.b): The land conversion did not occur on high conservation value forest areas;  (6.10.c): The conversion to non-forest land use will enable clear, substantial, additional, secure, and long term conservation benefits across the forest management unit; and  (6.10.e): The justification for land-use conversions is fully described in the long-term management plan, and the conversion meets the biodiversity conservation requirements of Criterion 6.3.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 6.10.b. &amp; 6.10.c. or 6.10.e</i>

<b>Nonconformity:</b> The management plan does not describe MRC's stakeholder consultation process.	
<b>Minor CAR 2010.10</b>	MRC shall augment the management plan to describe the stakeholder consultation process.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 7.1.r</i>

<b>Nonconformity:</b> MRC tracks some basic socio-economic indicators (e.g. local spending, number of employees). However, MRC has not yet developed a monitoring mechanism related to the Social Monitoring Concerns Matrix.	
<b>Minor CAR 2010.11</b>	MRC shall monitor relevant socio-economic issues, including the social impacts of harvesting, participation in local economic opportunities, the creation and/or maintenance of quality job opportunities, and local purchasing opportunities.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 8.2.d.3</i>

<b>Nonconformity:</b> In 2005, MRC documented the process used to identify 20% (47,726 acres) of the ownership as part of the MRC Reserve System. This document specifies the sources used to identify these Reserves including: Wieslander Vegetation Type Maps (VTM, 2005) and Fire and Resource Assessment Program Maps (FRAP, 2005) as well as consultation with outside experts and stakeholders from 20 different agencies and ENGOS.	
While this process was broad reaching, it did not include consultation with area Tribes nor did it distinguish between FSC Representative Sample Areas (RSA) (as per Criterion 6.4) and FSC High Conservation Value Forests (as per Criterion 9.1). The process as documented, more clearly aligns with the FSC requirements in Criterion 6.4 for Representative Samples. Although, these efforts certainly include elements required to identify High Conservation Value Forest as per Principle 9, the analysis needs to more	

clearly distinguish between RSAs and HCVFs in the documentation and mapping, as well as in the documentation describing the specific consultation with relevant stakeholders and experts.

Because the process used does identify HCVF areas and it did encompass a wide range of stakeholders, the audit team determined that a major CAR was not warranted and that a minor CAR is appropriate to require further refinement of the HCVF designation process.

<b>Minor CAR 2010.12</b>	MRC shall: (9.1.a): Identify and map the presence of HCVs within the FMU and, to the extent that data are available, on lands adjacent to the FMU, in a manner consistent with the assessment process, definitions, data sources, and other guidance described in Appendix F of the US Regional Standard; and  (9.1.b) Consult with qualified specialists, independent experts, and local community members who may have knowledge of areas that meet the definition of HCVs.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicators 9.1.a, 9.1.b</i>

**Nonconformity:** Due to the fact that the process used to identify the MRC reserves did not distinguish between Representative Sample Areas (RSA) and High Conservation Value Forests (HCVF), it is unclear how the consultation with stakeholders and outside experts was used to confirm that the proposed HCVF locations and their attributes have been accurately identified, and that appropriate options for the maintenance of their HCV attributes have been adopted.

This was determined to be a minor nonconformance due to the fact that significant consultation did occur; however, the audit team determined that the clarity of the consultation was not fully documented specific to HCV and thus warranted a minor CAR.

<b>Minor CAR 2010.13</b>	MRC shall hold consultations with stakeholders and experts to confirm that proposed HCVF locations and their attributes have been accurately identified, and that appropriate options for the maintenance of their HCV attributes have been adopted.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 9.2.a</i>

**Nonconformity:** While chain-of-custody custody procedures were found to be properly implemented, the procedures are not fully documented as required for ownerships exceeding 10,000 ha. Key items missing from the documented procedures include: the maintenance of records and reporting of volume summaries, the use of the FSC certificate code and claim on sales and shipping documents, and trademark use. Additionally, the claim on the shipping documents is FSC 100% rather than the required FSC Pure claim.

<b>Minor CAR 2010.14</b>	MRC shall provide written procedures covering all applicable chain of custody procedures and ensure that the shipping and sales documents use the FSC Pure claim.
<b>Deadline</b>	First annual audit.
<b>Reference</b>	<i>FSC US National Standard, Indicator 8.3.b.</i>

### 3.4. Observations

**Observations** are very minor problems or the early stages of a problem which does not of itself constitute a nonconformance, but which the auditor considers may lead to a future nonconformance if not addressed by the client. An observation may be a warning signal on a particular issue that, if not addressed, could turn into a CAR in the future (or a pre-condition or condition during a 5 year re-assessment).

<b>Description of findings leading to an observation:</b> Currently, the institutional knowledge of the forestry staff has been effective in ensuring that use rights such as water sources are protected. However, without key personnel it is questionable if there is a functional system beyond the historical knowledge to ensure future conformance.	
<b>OBS 2010.1</b>	MRC should evaluate the systems to manage and retrieve information about tenure and use rights held by others so that management activities do not significantly impact the uses or benefits of such rights.
<b>Reference</b>	<i>FSC US National Standard, Indicator 2.2.b</i>

<b>Description of findings leading to an observation:</b> Overall, the residual stand protection across the ownership was adequate but the skid trails observed in a few units were excessively wide resulting in excessive mineral soil disturbance. Additionally, the audit team saw only one commercial thin, as very few acres have been treated with a commercial thin prescription, but the number of barked trees along the skid trails was higher than expected.	
<b>OBS 2010.2</b>	MRC should insure that harvest practices are managed to protect residual trees and other forest resources.
<b>Reference</b>	<i>FSC US National Standard, Indicator 5.3.b</i>

<b>Description of findings leading to an observation:</b> Contractors must report a monthly chemical use summary and administrative staff maintains documentation in a spread sheet in order to report the annual application. However monitoring relies on the ocular observations by the area foresters and their staff. While the area foresters and staff do have a long tenure, intimate knowledge of the FMU, and are on site frequently, there are not systems to ensure consistent monitoring between area foresters.	
<b>OBS 2010.3</b>	MRC should monitor the effects of chemicals used and the results should be used for adaptive management.
<b>Reference</b>	<i>FSC US National Standard, Indicator 6.6.e</i>

<b>Description of findings leading to an observation:</b> All MRC staff interviewed was found to be qualified and sufficiently supervised. However, the unnecessary skid trail width and soil disturbance on a small number of sites visited as well as the few safety concerns observed by logging contractors (i.e. lack of personal protective equipment, no first aid kit on site) may have been due to insufficiently supervised or inexperienced logging contractors.	
<b>OBS 2010.4</b>	MRC should ensure that forest workers are qualified and sufficiently supervised to properly implement their respective components of the management plan
<b>Reference</b>	<i>FSC US National Standard, Indicator 7.3.a</i>

<b>Description of findings leading to an observation:</b> MRC has offered, in the past, the opportunity to Tribes to jointly monitor sites of cultural significance. However, given changes in Tribal representation and organizational structure, and given the time passed since the offer was made, most of the Tribes are unaware that they could participate in monitoring.	
<b>OBS 2010.5</b>	MRC should consider regularly offering to Tribal representatives the opportunity to jointly monitor sites of cultural significance.
<b>Reference</b>	<i>FSC US National Standard, Indicator 8.2.d.5</i>

<b>Description of findings leading to an observation:</b> Interviews indicated that there is one HCVF area that is adjoined by private land in which there has been limited effort to coordinate the maintenance of the HCV attribute with the adjacent landowner.	
<b>OBS 2010.6</b>	When HCVF attributes cross ownership boundaries and where the maintenance of the HCV attributes would be improved by coordinated management, then MRC should attempt to coordinate conservation efforts with adjacent landowners.
<b>Reference</b>	<i>FSC US National Standard, Indicator 9.3.c</i>

### 3.5. Certification Recommendation

Based on a thorough review of FME performance in the field, consultation with stakeholders, analysis of management documentation or other audit evidence the SmartWood assessment team recommends the following:

<b>Certification requirements met;</b> Upon acceptance of CAR(s) issued above	<input checked="" type="checkbox"/>
<b>Certification requirements not met</b>	<input type="checkbox"/>
FME has demonstrated that their described system of management is being implemented consistently over the whole forest areas covered by the scope of the evaluation	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comments:	
Subject to conformance with minor CARs (if applicable), FME's management system, if implemented as described, is capable of ensuring that all the requirements of the certification standards are met across the scope of the certificate	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comments:	
Issues identified as controversial or hard to evaluate.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Comments:	
Certificate type recommended:	<input checked="" type="checkbox"/> Forest management and Chain of custody <input type="checkbox"/> Forest management only (no CoC)

Once certified, the FME will be audited annually on-site and required to remain in conformance with the FSC principles and criteria as further defined by regional guidelines developed by SmartWood or the FSC in order to maintain certification. The FME will also be required to fulfill the

corrective actions as described below. Experts from SmartWood will review continued forest management performance and conformance with the corrective action requests described in this report, annually during scheduled and/or random audits.

## 4. CLIENT SPECIFIC BACKGROUND INFORMATION

### 4.1 Ownership and land tenure description

Mendocino Redwood Company, LLC (MRC), 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. MRC owns the property as a titled, fee simple property with clear tenure. In general, the property boundaries are clearly identified on the ground. Surveyors are contracted on a regular basis wherever questions arise regarding boundary issues.

MRC's forestlands are situated south of the Humboldt County line, west of Highway 101, north of the Willow Creek Road (near the mouth of the Russian River) in Sonoma County, and east of the Pacific Ocean. The forestlands are located in three distinct areas: the Rockport Tract (39,188 acres) just south of the Humboldt County line; the major ownership block (180,722 acres) south of the headwaters of the Noyo River, north of the ridge between the Garcia and the Gualala River in southern Mendocino County, east of the Pacific Ocean, and west of Highway 101; and the Sonoma County forestlands (8,857 acres) in the Willow Creek and Wheatfield Fork watersheds near the Pacific Ocean.

This section has been adapted from MRC's 2005 recertification report, the draft HCP and the MRC Management Plan.

Prior to the 1850s, MRC forestlands were largely unmanaged late successional redwood and Douglas-fir forests supporting communities of Native Americans (such as the Pomo, Yuki, Cahto, Wilaki, and Sinkyone). These communities relied on the adjacent oak woodlands for food, hunting, medicine, and most likely burned the forest about every twenty years. In pre-settlement California, small populations of tule elk, pronghorn, and deer commonly grazed the resultant open grasslands. These species may have promoted growth in grasslands. As settlers arrived, herds of grazing cattle, sheep, and horses displaced native elk, pronghorn, and deer. Heavy grazing and invasion of non-native plant species have had negative impacts on many Mendocino County native grasslands.

The first sawmill was built in 1852 at Big River, ushering in the redwood lumber industry on the Mendocino Coast of California, though harvesting progressed slowly until 1900. Harvesting techniques included burning, tree felling, re-burning, and downhill yarding into and through watercourses. Splash dams also transported logs downstream to the mills. These logging techniques caused extensive damage to stream channels, riparian and aquatic habitat and species, the legacy of which MRC is still managing.

By the late 1970's, when most of the old-growth had been liquidated, timbering was tapering off, many of the least productive timber properties were subdivided into smaller parcels and the productive industrial forestlands were consolidated under fewer corporate ownerships. By the late 1980's, subdividing of forestlands had slowed considerably as a result of county planning and regulatory efforts. Many of these properties have traded hands several times over the last thirty years. Timber harvesting remains relatively light on these small forestland holdings because the primary objective of the owner is to maintain recreational, aesthetic, wildlife or spiritual values rather than timber production.

Companies such as Union Lumber, Albion Lumber, Mendocino Lumber, Rockport Redwood, Cottoneva Lumber, Rockport Redwood, and Southern Pacific Land were some of the early owners of what now comprise MRC forestlands.

Harvesting started at the mouths of watersheds and progressed up-stream and up-slope to the ridgelines. Initial logging activities generally consisted of a regimen of burn, clearcut, and burn again. In response to tax laws in the 1940s and 1950s, many stands were managed to remove 70% of the stocking, typically the larger, healthier trees. Subsequent owners managed the lands to maximize fiber output and the success of their mill investments. As a result of this ownership history and harvesting methods, a

significant portion of the MRC acreage is at reduced levels of conifer stocking with trees in smaller diameter size classes. Historically industrial ownerships in this region were heavily over-cut. MRC's lands were among those heavily harvested by the previous owner. This led to the decline of some species that subsequently landed on rare, threatened and endangered (RTE) species lists. The RTE species that most notably affects forestry on the north coast of California are the northern spotted owl, marbled murrelet, coho salmon and steelhead trout, and, specific to Mendocino County, the Point Arena mountain beaver.

Timber management is the main land management activity occurring on MRC's land, with one large and several smaller hunting club leases maintained on the property. Ninety-five percent of the MRC properties are in the timber production areas of Mendocino County, accounting for 10 percent of the county's private land. Other industrial and non-industrial forestlands along with small communities and subdivisions adjoin the property. In both Mendocino and Sonoma counties timber production, ranching, agriculture (primarily vineyard production), urbanization, recreation and tourism are the common uses of the land. MRC allows local residents access to their property for recreation and a variety of personal uses, but by permit only. Permits must be requested from the area forester – no commercial activities of any kind are permitted, and common uses include horseback riding, hiking, mushrooming and picnicking. Additionally, some adjacent residents and landowners have use permits or easements for water resources or road access – legal documentation of all use rights is kept in the MRC Ukiah office.

#### **4.2 Legislative and government regulatory context**

California has some of the most rigorous forest practice regulations in the United States. These regulations are developed by a governor appointed Board of Forestry and based on the Z'Berg-Nejedly Forest Practices Act of 1973. Additionally, the Federal Endangered Species Act, the California State Endangered Species Act and EPA Clean Water Act also play a significant role in regulating forestry activities in California.

An overarching long-term sustained yield plan must be prepared for all ownerships larger than 50,000 acres (20,243 ha). Further, a Timber Harvest Plan (THP) must be prepared for every timber harvest project. The THP is considered the functional equivalent of an environmental impact report (EIR) under the California Environmental Quality Act (CEQA). The lead agencies for overseeing THP process are the California Department of Forestry and Fire Protection (CDF) and California Regional Water Quality Control Board (CRWQCB). The California Department of Fish and Game (CDF&G) and the California Department of Mines and Geology (CDM&G) also provide significant input into the THP process. As a group, the agencies review the written THP and evaluate the company's compliance with the FPA by making onsite visits before, during and after harvest. Moreover, the THP process is a public process. The project proponent files their long-term plan and THP with the state and the public is given opportunity to provide written or verbal comment to the agencies. The agencies are required to respond to each comment in writing. Additionally, the National Marine Fisheries monitors each project's protection of RTE anadromous fish (salmon and steelhead). The California Department of Fish and Game monitors other RTE species on behalf of the U.S. Fish and Wildlife Service. The State also regulates the protection of historical and archeological sites. Native American Tribes are given significant opportunities to protect sites of cultural importance.

MRC operates under a state (Cal Fire)approved Option A, which takes the place of a Sustained Yield Plan (SYP) and demonstrates compliance with the regulations under the California Forest Practice Rules and the California Environmental Quality Act (CEQA). Like an SYP, the Option A addresses management affects on timber resources, such as growth and harvest levels, while considering non-timber resources in each THP, such as watersheds, fisheries and wildlife. MRC's Option A was first submitted in 1998, and updated in 2008 to incorporate newly designated Harvest Blocks. However, as mentioned above, MRC has been in the process of developing an HCP and an NCCP since 2001. These two documents, in addition to an Environmental Impact Report (EIR) and a Timber Management Plan, will make up the Program Timberland Environmental Impact Report (PTEIR). When this is finalized and approved by each applicable agency, it will replace the current Option A, and become MRC's primary harvest planning and conservation tool..

#### **4.3 Environmental Context**

The following has been adapted from MRC's Draft HCP and Management Plan.

The MRC property is located in the California coast range of Mendocino and Sonoma Counties, California. Most of the land is within 20 miles of the Pacific Ocean, and lies within the fog belt that stretches from Central California to Oregon. This area comprises the primary habitat of coast redwood (*Sequoia sempervirens*). Rainfall is typically around 60 inches per year, with eighty percent occurring during the six months between November 1 and April 30. Topography varies from sea level to about 3,000 feet, and is marked by steep, narrow canyons. Primary rivers include the Russian, Gualala, Garcia, Albion, Navarro, Big, Noyo, and Eel.

Soils of the region have mostly been formed on sandstones and shales, and to a lesser extent on slate, chert, limestone and schist. The coast range in Mendocino and Sonoma Counties is primarily underlain by folded and sheared marine sandstones and siltstones; schists; and dispersed metamorphic blocks and volcanic rocks of the Franciscan assemblage. Because of its underlying geology, MRC's property is subject to high rates of mass wasting and erosion due to steep topography, high uplift rates, weak rocks, and very sheared and faulted conditions of underlying bedrock.

Early harvest efforts started at the mouths of watersheds and progressed upstream and up-slope to the ridgelines. Initial logging activities generally clearcut the old growth forests, then burned the slash while the logs were still on the ground before yarding them downhill to the river systems. Oxen were used to pull logs to mills or river systems. The rivers served as the transportation routes to the mills. Subsequent entries into the forests further inland were commonly accomplished with steam donkeys and railroads. During the 1940s, crawler tractors replaced steam donkeys with the yarding of logs and trucks replaced railroads with the delivery of logs to the mills. Clearcutting continued to be a common harvest method.

Tax laws in the 1940s and 1950s encouraged landowners to remove 70% of their conifer stocking resulting in harvests that removed the larger, healthier trees. Little effort followed harvesting to ensure that the areas harvested were stocked with conifers and able to grow amidst competition from hardwoods. The result of this 'high-grading' is that portions of the forest consist of unnaturally high densities of tanoak. High intensity fires associated with burning slash and catastrophic wildfire (Comptche Fire in 1931, for example) also favored the establishment and rapid growth of tanoak. It has been hypothesized that the intensity associated with the Comptche Fire was due to high levels of lying dead wood associated with shake operations in the forest. The current density of the hardwoods (tan oak) results in a condition that limits the ability of redwoods and Douglas-fir to achieve desired or historical stocking levels.

Vegetation on MRC property is composed primarily of second and third growth natural forests. Mixed redwood and Douglas-fir stands, cover 134,468 ac (54,417 ha) or 63% of the property. Occurring in all MRC inventory blocks, this is the most common vegetation type on the property, ranging from young, regenerating forests to mature forests. Coastal redwood and Douglas fir are generally associated with each other in MRC forests. The composition of conifer stands is related to environmental conditions. Coastal redwood, as its name implies, is found within 2-10 mi (4-16 km) off the coast, in areas of consistent fog, with high summer humidity, cool temperatures, and well-developed soils, while Douglas fir can occur on drier sites with poorer soils. Both species live for long periods of time; stand-replacing fires generally favor development of forests dominated by Douglas fir. Without forest management, MRC land would retain the current high proportion of hardwoods, particularly tanoak.

Coastal redwood and Douglas-fir forest provide habitat for all of the RTE species managed and protected by MRC. In the upland and riparian portion of this natural community are northern spotted owls, marbled murrelets, Point Arena mountain beavers, and a handful of rare plants, including a robust population of Humboldt milk-vetch. The riparian portion of the forest also provides habitat for numerous threatened or endangered species, such as coho salmon, Chinook salmon, steelhead, coastal tailed frogs, red-legged frogs, southern torrent salamanders, and various rare plants. Old-growth stands in the forest are especially important to species such as the marbled murrelet and the Pacific fisher. Many bat species are associated with old-growth as well.

Natural disturbance includes mass wasting events, wind and fire. For the most part, fire suppression efforts resulted in the exclusion of fire from the area. The most recent large fire occurred on June 20-21,



2008, as lightning storms ignited approximately 129 fires in Mendocino County. The Mendocino Lightning Complex burned 54,817 ac; 23,196 of those acres were within MRC property. CAL FIRE declared the fires contained by July 19th, and MRC has newly incorporated fire management strategies in their Management Plan.

#### **4.4 Socioeconomic Context**

Portions of this section have been adapted from MRC's 2005 recertification report.

The history of timbering in Sonoma and Mendocino counties has contributed significantly to the overall socioeconomic characteristics of the area, and largely shaped the current economic and social climate. Timbering began in Sonoma and Mendocino County in the late 19th century. After the San Francisco earthquake in 1906, timbering increased significantly and became the area's largest employer, bringing many more people into the area and increasing population densities along the coast. Communities developed around sawmill sites along the coast (mostly at the mouth of rivers) as lumber was transported to San Francisco by ship. During the housing boom after World War II, more mills were built in the inland valleys as highways and railways then provided for the bulk of the lumber transportation. There were literally hundreds of sawmills in Sonoma and Mendocino Counties. In 1955 the county produced an incredible 1 billion board feet of lumber.

Timber production remained high until the mid 90's, when the effects of long term severe over-harvesting began to lead to social conflicts over forest management in NW California. At the same time, forest related employment began to plummet. Reasons for the decline in timber employment could be attributed to range of issues including changes in mill technologies, corporate consolidation of the industry and associated downsizing, diminishing log supplies from historic over-harvesting mill capacity, shifting policy priorities on public lands, and increases in environmental regulation. The conflicts over forest management have subsided in the last few years as private owners like MRC have bought forestlands from corporate owners and have made significant improvements to the forest environment. Additionally, timber has become a secondary employer and timber receipts and taxes lag behind the wine and tourism industries in both counties. However with the exodus of higher paying lumber manufacturing jobs, Mendocino County, as opposed to Sonoma, has a relatively high rate of people living on public assistance.

According to 2008 census data, Mendocino County is approximately 88% Caucasian and 21% Latino, with a Native American population well above the state average at almost 6%. Sonoma County demographic statistics are almost identical, however with a much smaller Native American population. (Note: The census allows one person to affiliate themselves with more than one race to the total percentage is greater than 100%) Since the late nineties, employment in most sectors of the economy has fallen significantly in Northwest California, though Sonoma County has fared better economically than Mendocino. As of 2009, the median annual household income of Sonoma County was \$62,000, versus \$43,000 in Mendocino County. The primary economies of the area continue to be timber, agriculture and tourism along the coast. Major employers in Mendocino County are city and county government offices, the school system, hospitals and wineries. Mendocino County is home to nine Indian Reservations, and local Tribes include Pomo, Kahto, Yuki and Eel River Athapaskan people. MRC has a more formal relationship with the Pinoleville Pomo Nation, primarily regarding a piece of land that is managed jointly for traditional uses by the Tribe.

A significant recent development primarily in Mendocino County, but occurring throughout the forested areas surrounding MRC, is the influx of marijuana growers and their impact on the local economy. The market for marijuana has grown considerably in recent years, and the money to be made from large-scale outdoor growing operations has grown in step – estimates from 2009 say marijuana sales account for two thirds of Mendocino County's economy. Numerous illegal gardens are now found on private and public lands, and the business of growing marijuana has brought substantial economic gain for a number of local residents, despite its illegality. Concurrently, county resources devoted to law enforcement and marijuana eradication have increased dramatically, and the situation is now one of the hottest economic and law enforcement issues in the area. MRC, like many large private landowners in the area, devotes substantial time, money and effort toward securing their forests from illegal uses, patrolling their gates and conducting flyovers in collaboration with county and state drug enforcement agencies.

## APPENDIX I: Public summary of the management plan

<b>Main objectives of the forest management are:</b>	
Primary priority:	Manage a large block of productive forestland utilizing high standards of environmental stewardship and at the same time to operate as a successful business.
Secondary priority:	Maintained as investment to increase the value
Other priorities:	<ol style="list-style-type: none"> <li>1. The inventory of redwood, Douglas-fir, and other conifer trees on our property will improve.</li> <li>2. The habitat available to land-based species will improve.</li> <li>3. The habitat available to aquatic-based species will improve.</li> <li>4. The species composition present on our land will begin to more closely resemble the composition of forestlands and wildlife before commercial timber harvest removal.</li> <li>5. Being a business that people will want to work for.</li> <li>6. Being a business that the community is proud of.</li> <li>7. Being a business that is known for producing quality products and keeping its word.</li> <li>8. Being a business that earns a return on the capital invested in the business over time.</li> </ol>
<b>Forest composition:</b>	
<p>The MRC property is composed primarily of second and third growth natural forests. The forest type is primarily redwood/mixed conifer. Redwood (<i>Sequoia sempervirens</i>), Douglas fir (<i>Pseudotsuga menziesii</i>), grand fir (<i>Abies grandis</i>), Western hemlock (<i>Tsuga heterophylla</i>) and hardwoods, tanoak (<i>Lithocarpus densiflora</i>) and Pacific Madrone (<i>Arbutus menziesii</i>) are the primary tree species in this association with occasional chinquapin (<i>Castanopsis chrysophylla</i>), black oak (<i>Quercus kelloggii</i>), Oregon white oak (<i>Quercus garryana</i>), canyon live oak (<i>Quercus chrysolepis</i>), coastal live oak (<i>Quercus agrifolia</i>), Bigleaf Maple (<i>Acer macrophyllum</i>), and red alder (<i>Alnus rubra</i>). There are some residual old-growth trees left in the stands and five small unentered old growth redwood stands (under permanent protection). Most of the lands classify primarily as site III (moderate growing potential). Species selected for harvest at MRC consists of the only two commercially viable species on the property – Douglas fir and Redwood.</p>	
<b>Description of Silvicultural system(s) used:</b>	
<p>selective logging with cont. forest cover</p> <p>Whereas previous owner's management regimes were based on either clearcutting or two- or three-entry even-aged management (i.e., shelterwood systems), MRC has adopted and continues to implement a policy of moving to a broader mix of both even and un-even aged systems with a long term transition to exclusively un-even aged silviculture. At the end of 1998, MRC announced a policy of no clearcutting, in favor of "variable retention" harvesting. This system is predominantly employed in forest stands that have an over-abundance of hardwoods. During the first year of operations under MRC management, this new policy generally meant that approximately 10% of the basal area of a harvest block was retained, in clumps and scattered residual trees of both hardwood and conifer species. That is, variable retention harvests during the first year of MRC operations were largely one-entry regeneration harvests but with a fixed amount of green retention. However, in the ten years since the original certification evaluation, variable retention silviculture as practiced by MRC has undergone substantial evolution, and the</p>	

company is on its way toward their goal of a management regime dominated by selection silviculture. By the second full certification evaluation in October 2005, MRC was employing variable retention silviculture in a manner more befitting its name, with the extent and spatial patterns of retained trees varying in response to site-specific circumstances (10% to 40% of pre-harvest basal area), but with the average level of retention at approximately 20%. These higher levels of retention are much more effective in maintaining diversity within harvest units and in transitioning the forest to a multi-aged structure. The general approach is that variable retention harvesting will be prescribed on a stand only once, followed by subsequent entries employing selection silviculture. Seed tree removal is applied where there is a minimum of 300 understory vigorous small conifer trees (or a mixture of fewer large trees) per acre. The seed tree removal prescription is utilized to move the stand towards uneven-aged management – the next silvicultural application in this stand would be transition silviculture.

Now in its third certification cycle, selection silviculture continues to be increasingly prescribed on the ownership. MRC remains on course to move fully to un-even aged silviculture over time as the backlog of stands with substantially unbalanced hardwood composition are treated with variable retention silviculture. As of their updated Management Plan in July 2010, MRC estimated that approximately 65% of their total harvested acres would be managed by uneven age silviculture application over the next five years, and that the process of moving entirely to uneven age stand management would be completed within the next 20 years. While this estimate seems particularly optimistic given the pace at which MRC is applying selection silviculture currently, it is important that they continue to emphasize the transition in management to their foresters.

MRC also employs pre-commercial thinning prescriptions in areas of well-stocked understory conifers, typically on no more than 300-500 acres per year. These prescriptions reduce stand density and encourage more vigorous conifer growth.

<b>Silvicultural system</b>	<b>% of forest under this management</b>
Even aged management	100-300 ha
Clearcut (clearcut size range )	0 ha
Shelterwood	100-300 ha
Uneven aged management	91498 ha
Individual tree selection	29639 ha
Group selection (group harvested of less than 1 ha in size)	29639 ha
Other types of management (explain) Variable retention with openings of 1/2 to 2 acres	31920 ha

Harvest methods and equipment used: Tractor yarder, skidder/forwarder, Skyline yarder, Helicopter

Estimate of maximum sustainable yield for main commercial species: 61.6 mmbf per year for 1<sup>st</sup> period (ending this year); 68.9 mmbf per year for 2<sup>nd</sup> period (2011-2015)

Explanation of the assumptions (e.g. silvicultural) upon which estimates are based and reference to the source of data (e.g. inventory data, permanent sample plots, yield tables) upon which estimates are based upon.

MSY is based on inventory data from over 200 permanent plots on MRC's land (data updated and reported annually), standard growth and yield calculation methods for the redwood region, while considering the constraints of MRC's silvicultural system and management objectives. MRC uses CRYPTOS for their growth and yield modelling, incorporating harvest before growing out the stands.

Forest inventory data is collected by foresters every year from over 200 permanent sample plots, and numerous sample plots within a stratified sampling plan, and incorporated into forest growth and yield modeling projections. Forest inventory reports are updated in the first quarter of every calendar year, and annual reports produced. Inventory foresters collect data on tree diameters, heights, unique tree characteristics (e.g. old growth, snags, nests), and number and size of downed logs. Summary information on inventory is accessible through the monitoring section of the MRC website. MRC calculates its inventory and harvest projections using CRYPTOS 5 year growth projections.

#### FME organizational structure and management responsibilities from senior management to operational level (how is management organized, who controls and takes decisions etc.)

Forest management at MRC is overseen by the senior forestry personnel, who report to the president. Personnel directly involved in forestland management and planning include:

- Stewardship Director: Responsible for overseeing stewardship goals of the company
  - Director of Forest Science: Oversees biology staff, planning and research
  - Area Foresters: Implements the forest management plan for specifically assigned forest management Harvest Blocks and Sustainability Units;
  - Reforestation Forester: Implements reforestation applications;
  - Biologists – wildlife, aquatics and hydrology: Oversees survey and protection measures for RTE species. Provides consultation to the area foresters on plant, fish and wildlife issues.
  - Road Operations Manager: oversees the road crew, shop supervisor and the land security officers;
  - GIS staff: Analysis and incorporates GIS data into forest management planning and mapping.
- Most harvesting operations are performed by outside contractors, although MRC does maintain their own road crew.

#### Structure of forest management units (division of forest area into manageable units etc.)

There are 17 sustainability units that are delineated by grouping subwatersheds that logically can be modeled together for forest inventory and harvest scheduling purposes. A given Area Forester may have responsibilities over multiple sustainability units.

#### Monitoring procedures (including yield of all forest products harvested, growth rates, regeneration, and forest condition, composition/changes in flora and fauna, environmental and social impacts of forest management, costs, productivity and efficiency of forest management)

Forest inventory data is collected by foresters every year from over 200 permanent sample plots, and numerous sample plots within a stratified sampling plan, and incorporated into forest growth and yield modeling projections. Forest inventory reports are updated in the first quarter of every calendar year, and annual reports produced. Inventory foresters collect data on tree diameters, heights, unique tree characteristics (e.g. old growth, snags, nests), and number and size of downed logs. Summary information on inventory is accessible through the monitoring section of the MRC website. MRC calculates its inventory and harvest projections using CRYPTOS 5 year growth projections.

Old growth standards are monitored on a ten year basis. Wildlife trees, such as snags, are tracked through inventory monitoring. Rare plant surveys are conducted in all areas of planned timber harvests – monitoring procedures will likely be updated with the implementation of the HCP. A major requirement of the HCP will be clear procedures for protecting 'key habitat elements' identified by MRC, such as individual old growth trees, stands of old growth trees, wildlife trees and snags, large woody debris, hardwoods and unique habitat elements such as caves. However, until the plan is implemented, some of these features are monitored only anecdotally.

MRC has extensive monitoring programs for their RTE species, primarily Northern spotted owl, marbled murrelet, and Point Arena mountain beaver. Additional mammal, songbird, and birds of prey surveys are conducted, and incorporated into annual terrestrial wildlife reports, which are available on the website.

Road conditions, including stream crossings, and their effects on sediment loading are also monitored as part of watershed analysis. MRC is completing a comprehensive inventory of all its roads, and plans to have a road restoration, mitigation and monitoring plan as part of the HCP.

Economic (local purchasing, direct employment, and charitable gifts) and social effects of forest

management (responses to meetings regarding large planning initiatives) are tracked annually by MRC. Summary information is available on their website under the monitoring section.

MRC accounts for and tracks costs associated with forest management, including equipment, log sales and contractors. In light of a new focus on costs, MRC has recently moved to a bidding system for all contract logging crews, in a move to decrease costs and increase efficiency.

Environmental protection measures, e.g. buffer zones for streams, riparian areas, etc., protection measures for Rare Threatened and Endangered Species and habitat

MRC has completed extensive aquatic habitat monitoring in the form of watershed analyses and annual aquatic biology reports. Watershed analyses provide a multi-disciplinary approach to assessing baseline conditions and the effects of forest management on critical aquatic habitat indicators, such as amphibian and reptile populations, stream flow, sediment loads, erosion and fish populations.

Road conditions, including stream crossings, and their effects on sediment loading are also monitored as part of watershed analysis. MRC is completing a comprehensive inventory of all its roads, and plans to have a road restoration, mitigation and monitoring plan as part of the HCP.

Other Sections may be added by the FME