Public Summary Certification Report
On the Evaluation of:

MENDOCINO REDWOOD COMPANY
A NATURAL FOREST OPERATION LOCATED IN

MENDOCINO COUNTY, CALIFORNIA
UNITED STATES

Under the SCS Forest Conservation Program

Certification Registration Number: SCS-FM/COC-00026N

OCTOBER 2000

Evaluation Conducted for:

Scientific Certification Systems
Park Plaza Building
1939 Harrison Street, Suite 400
Oakland, CA 94612

Contact: Dr. Robert J. Hrubes

Mendocino Redwood Company was certified after an interdisciplinary team of scientists and forestry experts determined that management of the natural forest estate substantively complied with the SCS standards of certification, which are fully compatible with the Forest Stewardship Council's *Principles and Criteria.*

1.0 GENERAL INFORMATION

1.1 Name and contact information for the certified operation:

Mendocino Redwood Company
P.O. Box 390
Calpella, California 95418
Contact: Mike Jani, Chief Forester
Web Page: www.mrc.com

1.2 General background about the operation:

At the request of Mendocino Redwood Company (MRC) President Sandy Dean, Scientific Certification Systems (SCS) conducted a multi-year evaluation of MRC's forestry operations in Mendocino County, California. The process began with a preliminary evaluation in the fall of 1998, in which SCS provided MRC with a preliminary evaluation of the strengths and weaknesses of their management program relative to Forest Stewardship Council-endorsed standards of certification. (Phase I)

In the summer of 1999, a full evaluation was conducted of the MRC operations. Notably, this evaluation was conducted in parallel with a certification evaluation conducted by another FSC-accredited certification body, Smartwood. While a single team of experts was empanelled by SCS and Smartwood, the accredited protocols of each certifier were fully executed, including the scoring processes. Based upon the investigations conducted in the summer of 1999, the joint evaluation team specified pre-conditions that MRC needed to address prior to further consideration of possible award of certification. (Phase II)

In the summer of 2000, MRC approached both SCS and Smartwood requesting that the certification process be resumed, as the company felt it had made substantive progress on the deficiencies that were the foci of the pre-conditions. After a reconnaissance by representatives of both SCS and Smartwood in late June 2000, a resumption of the full evaluation was scheduled for September 2000. (Phase III) This public summary report describes the events that transpired during the summer of 2000 and the recommendation offered by the evaluation team.

The purposes of the three-phase evaluation were to:

- Provide MRC with early guidance and insight as to the issues and management aspects that would need to be addressed before the company stood a reasonable chance of achieving certification (Phase I)
- determine, through the formal execution of the evaluation protocols, the extent to which MRC's operations are consistent with the characteristics of exemplary forest management, as represented by the FSC-approved evaluation criteria of SCS' Forest Conservation Program (Phase II, in which it was concluded that more work was needed to attain certification)

- assess MRC's readiness to achieve certification after the company had spent 14 months further developing its management programs, partially in response to the outcome of the 1999 evaluation (Phase III)

Each stage of the evaluation included a review of the management of the timber resource, the care taken in protecting the forest ecosystem, the financial viability of the operation, and the socio-economic effects of the forestry operation on communities and economies within MRC's sphere of influence.

MRC has been in operation since July, 1998, at the time that Sansome Partners, Limited Partnership, purchased portions of the former Louisiana Pacific's (L.P.) California forest in Ukiah, Fort Bragg and Willits as well as the lumber distribution facilities in Calpella and Riverside, CA. Acting for the principal investors, the Fisher family based in San Francisco, Sansome Partners established Mendocino Redwood Company (and affiliated companies) to run the newly acquired businesses. A principal of Sansome Partners, Mr. Sandy Dean, assumed the duties of President of MRC at the time of establishment and was the chief executive, until very recently. During the first year of operations, a new Chief Forester was hired. As well, the company created and filled a new senior position dealing with stewardship and policy development matters. Additional technical and professional staff have been brought on board since the completion of the Phase II certification evaluation. At the time of this writing, MRC has announced that a new President has been hired and that Mr. Dean is now Chairman of the Board of Directors.

MRC's land base is comprised of 235,000 acres located throughout Mendocino County, west of U.S. Highway 101. The land base occurs in 28 different watersheds and 80 subwatersheds, as delineated by the California Department of Water Resources. Management activities on the land base are structured around 10 watershed planning units. Average annual harvest on the land base during the last years of L.P.'s ownership was approximately 48 million board feet. During the first two years of operation, MRC has harvested between 36 and 40 million board feet per year. Harvest levels under MRC are conservatively estimated at roughly 60% of periodic growth, or less than 2% of standing conifer inventory per year. The present harvesting regime relative to growth will lead to a doubling of the standing inventory in roughly 50-60 years.

The company employs approximately 55 people in the forest management side of the business, many of which were previously employed by Louisiana Pacific. Approximately 450 people are employed in the sawmills and distribution facilities.

1.3 Forest and management system:

The 235,000 acre MRC land base lies within two major forest types: the redwood forest type which occupies a thin band of land along the coast of California from Monterrey County to the Oregon border and the Douglas-fir dominated type which lies to the east of the redwood zone and is characterized by drier site conditions. In fact, the MRC forests constitute a continuum of type conditions ranging from redwood dominated to mixed conifer/hardwood stands to Douglas-fir dominated stands. The most prevalent species composition is a mosaic of mixed

conifer/hardwood stands that vary in composition in response to micro-site factors such as aspect, soil moisture and soil type as well as harvest history.

Hardwood species (principally tanoak, madrone and some black oak) are a significant component of the forested landscape on MRC and other properties in the region. Hardwoods are a challenging management issue for the company. While these hardwoods are native to the region and represent an important component of the natural ecology, their current distribution is a function of past and current timber harvesting practices that failed to assure adequate conifer reproduction. To a substantial degree across the ownership, sites capable of supporting conifers, and that were historically occupied by conifers, are now dominated by hardwoods. Company foresters estimate that roughly 50% of the property is occupied by stands in which there are unnaturally high levels of tanoak.

Site productivity (for conifer growth) runs the full range across the MRC property, but the dominant classification is Site Class III (average productivity). Due to past (pre-MRC) harvesting practices and overall harvest intensities on the property, average conifer stocking across the ownership is well below the land's capacity, currently averaging approximately 10,000 board feet per acre.

Whereas the prior owner's management regime was based upon either clearcutting or two- or three-entry even-aged management (i.e., shelterwood systems), MRC has adopted and is implementing 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, under the direction of senior management, variable retention silviculture as practiced by MRC has undergone substantial evolution during the second year of operations. By the time of the resumed (Phase III) certification evaluation in September 2000, 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 an multi-aged structure.

Selection silviculture is increasingly being prescribed on the ownership. Under the tutelage of Chief Forester Mike Jani, whose background is in un-even aged timber management in the Santa Cruz Mountains of California's central coast, MRC is now on course to move fully to un-even aged silviculture, over time and as the backlog of stands with substantially unbalanced hardwood composition are treated with variable retention even-aged silviculture. The general approach is that variable retention harvesting will be prescribed on a stand only once, followed by subsequent entries employing selection silviculture.

Beyond silviculture, MRC senior management has instituted other new initiatives and policies:

- MRC has identified approximately 130 acres of 14 distinct "never-harvested" (FSC Type I) old growth stands. These acres will be permanently protected by MRC. The company has approximately 1,250 acres of previously harvested (FSC Type II) old growth stands where significant old growth characteristics are still present. The residual old growth trees and late successional characteristics of these stands are protected by written policy and only low-impact silviculture, such as thinning from below, is allowed to enhance or extend these stands. The remaining previously logged second-growth forests on MRC lands are estimated to contain up to 50,000 scattered residual old growth trees in very low densities. These old trees are being preserved, based on a policy that protects them by age, size, function and characteristics specific to particular species.
- The company has initiated a research program looking into alternatives to herbicides, including manual treatments and less-toxic compounds such as eucalyptus oil. It has committed to reducing and phasing out the use of chemicals (especially Garlon) to achieve site restoration goals, in favor of using non-chemical suppression alternatives instead.
- There has been a substantial investment in and emphasis on road maintenance, as guided in part by watershed analyses.
- A new landscape planning methodology has been developed and is being implemented at the planning watershed level. To date, landscape planning has been largely completed on 2 of the 10 MRC watershed areas.
- The company has committed to a tanoak utilization project that entails re-opening the Willits sawmill for the purpose of manufacturing tanoak flooring. It is intended that this marketing effort will help to defray the cost of the restoration efforts on the tanoak-dominated stands.
- As guided by regulations of the California Board of Forestry, MRC has completed and achieved approval of a 100-year “Option A” timber management plan. As part of this effort, the company initiated a major re-inventory of the property.
- The company has entered into cooperative stream restoration agreements and collaborative projects with Trout Unlimited and other entities, focusing on portions of the Navarro, Big River, Russian, Noyo, Garcia, and Albion River systems.
- A new management plan has been completed that provides overall guidance and that memorializes internal habitat protection policies that exceed regulatory requirements.

1.4 Environmental and socioeconomic context:

Mendocino County is one of the most challenging and contentious regions in the western United States in which to practice industrial forest management. The county is increasingly within the influence of the San Francisco Bay Area metropolitan region and is increasingly within the “urban/rural interface,” particularly in the southern half of the county. There is a very active, well-informed and vocal grass roots environmental community in the county that has been mobilized for at least the past two decades over commercial forestry issues. The forest practices of the prior owner, Louisiana Pacific, galvanized intense public opposition, including the grass roots environmental activist community. To a large extent, the enmity of the activist community

has been transferred to L.P.'s successor, MRC, and to some extent intensified amongst the most vocal critics. An over-riding challenge facing MRC management personnel is to reverse or at least ameliorate the intensity of this negative socio-political dynamic.

Reflecting its proximity to San Francisco, land ownership patterns are more fragmented in the southern half of the county with numerous small ownerships that were created through small scale subdivisions in the 1960's and 1970's. Industrial forestry is practiced in the proximity of nearby residential properties in many of the southern watersheds, such as Albion and Greenwood Creeks.

Most of the county remains rural in character, except for the county seat, Ukiah, and the Mendocino to Fort Bragg coastal corridor. The regional economy still relies heavily upon agriculture and the forest products sector, with the farms and forestry categories still being the largest non-government sources of employment. Unemployment levels are endemically high in this region, reflecting the norm for rural regions in northern California. Governmental transfer payments and retirement payments are important components of county per capita income.

1.5 Products produced:

Mendocino Redwood Company produces and sells delivered logs, almost exclusively to its affiliated sawmills in Calpella and Fort Bragg. These mills are owned and operated by Mendocino Forest Products, a sister company to MRC with essentially common ownership. The principal commercial conifer species harvested on the defined forest area are redwood and Douglas-fir, with minor amounts of other species, such as white fir. Tanoak is also commercially harvested, primarily for biomass and firewood, but a new initiative to mill tanoak for flooring has been established at the Willits mill site and an associated flooring line located in Ukiah that is presently engaged in test productions. If financially viable, the tanoak flooring initiative will help to offset the restoration costs on hardwood-dominated areas of the land base.

1.6 Chain of Custody

During the fieldwork that was conducted, the evaluation team also investigated the manner by which MRC can maintain chain-of-custody over the logs that leave the "forest gate" to assure that only logs from the "defined forest area" would carry the certified status, were forest management certification to be awarded. The evaluation team found the following facts:

- MRC logging operations employ industry-standard practices for assuring proper tracking and tracing of logs to the point of origin, to assure proper payment of fees to logging and trucking personnel. The procedures include unique "trip tickets" affixed to each truck load as well as visible marking of a portion of the logs in each load.

- MRC field personnel fully understand the necessities of chain-of-custody log control; that is, they understand and are competent in assuring that only logs originating from the defined forest area (MRC's fee lands) are to be considered as certified, unless outside sources of logs also are duly covered by a valid chain-of-custody certificate.

- The sawmills in Fort Bragg and Ukiah have already been chain-of-custody certified by a FSC-accredited certifier, thereby assuring the continued integrity of the certified log supply, once the logs are unloaded for scaling and processing in the mills' log yards.

Therefore, it is the judgment of the evaluation team that chain-of-custody certification should also be awarded to MRC for the defined forest area; that is, the 235,000 acres of fee timberland located in Mendocino County, California.

2.0 THE CERTIFICATION ASSESSMENT PROCESS

2.1 Assessment dates:

The FSC-endorsed certification evaluation process focusing on Mendocino Redwood Company (MRC) was initiated in the fall of 1998, when both Smartwood and Scientific Certification Systems (SCS) conducted preliminary/scoping evaluations. The fieldwork for the SCS preliminary evaluation was conducted in **November 1998**. In compliance with their respective accredited protocols, the SCS preliminary evaluation was conducted by Dr. Robert J. Hrubes, then lead forestry consultant and now Senior Vice-President of SCS.

Subsequent to the submittal of each certifier's preliminary evaluation/scoping reports, MRC requested that the two certifiers consider conducting a joint evaluation. MRC requested this format because it wished to have the most rigorous certification process available and also because it wanted experts associated with both certification programs involved in the evaluation of their forestlands. After discussions between the three parties, Smartwood and SCS agreed to an evaluation format that entailed the use of a joint team in which the FSC-endorsed protocols of both certification programs would be fully followed, particularly the scoring and decision-making protocols.

The full certification evaluation under this joint format commenced in the summer of 1999, with the fieldwork being conducted over a two-week period in July 1999. The outcomes of the 1999 joint evaluation were that both certifiers concluded that MRC's management program was not yet in adequate compliance with the evaluation criteria, as determined by the certifiers' respective processes. Reports were submitted to MRC that detailed the certifiers' findings and that presented the *preconditions* upon which MRC needed to make substantive progress prior to resuming the certification evaluation process.

From the period of August 1999 to September 2000, MRC worked on the preconditions. During this time, there were periodic discussions between MRC personnel and representatives of SCS and Smartwood, focusing on the progress being made in addressing the preconditions. During this time period, MRC completed an Option A sustained yield document that was subsequently approved by the California Department of Forestry and Fire Protection. As well, MRC continued to complete its re-inventory and develop a landscape planning methodology that, to date, has been employed on 2 of the 10 watershed planning units that comprise the MRC land base.

During the summer of 2000 the certification evaluation process was resumed, beginning with dialogue between MRC senior personnel and the certifiers. In late **June 2000**, the co-team leaders from SCS and Smartwood conducted a brief visit to MRC to engage in focused discussions with MRC personnel about the extent of progress made in addressing the preconditions and to spend one day in the field examining recent harvesting activities. In **August 2000**, the stakeholder consultation process was resumed by telephone interviews and distribution of a written questionnaire fax and email. In early **September 2000**, the full team reconvened in Mendocino County to conduct additional field observations and to reassess MRC's performance relative to the standards of certification, particularly those addressed in the preconditions. During the week that the team was together in the county, additional stakeholder consultation also took place, including face-to-face meetings and telephone interviews.

2.2 Assessment team:

Dr. Robert J. Hrubes, Team Leader:

Dr. Hrubes is Senior Vice-President of Scientific Certification Systems. Professionally, he is a California registered professional forester (#2228) and forest economist with 25 years of experience in both public and private forest management issues. In addition to serving as team leader for the MRC evaluation, Dr. Hrubes previously worked in collaboration with SCS to develop the programmatic protocol that guides all SCS Forest Conservation Program evaluations. Dr. Hrubes has previously led other SCS Forest Conservation Program evaluations of North American industrial forest ownerships, as well as operations in Scandinavia, Japan, and New Zealand. As the MRC team leader, Dr. Hrubes is the principal author of this report. Prior to becoming Senior V.P. at SCS, Dr. Hrubes was managing principal of Natural Resource Associates, a California-based forest and natural resource economics consulting firm. Dr. Hrubes also served, for four years, on the Board of Directors of the Forest Stewardship Council, an international organization that accredits forestry certification programs.

Dr. Mark Baker:

Dr. Baker's primary areas of specialization are environmental policy and institutions, natural resource management, rural sociology and community development. He is presently an independent researcher and contractor based in Arcata, CA. From 1996 until January 1999 he taught environmental policy, environmental management, and community development as a member of the Environmental Studies faculty at the University of North Carolina at Asheville. His prior research has concerned social forestry and communal irrigation management in India, and watershed institutions in California. He is currently conducting research on the community forestry movement in the United States, in association with Forest Community Research, a not-for-profit organization based in Taylorsville, California.

Dr. Dean Berg:

Dean Rae Berg is a forest contractor with graduate studies and experience in forestry and forest engineering, ecology, riparian management, and fisheries. He has twenty years' experience of practical forest management, most recently with Variable Retention silviculture and ecological engineering applications. He has worked as a forest consultant and currently maintains a private practice in forest engineering with ecologically based harvest practices.

Silvicultural Engineering is owned and operated by Dr. Dean Berg. Dr. Berg established his consulting business in 1988 after 14 years working in the timber industry. His clients include private industry, regulatory agencies, universities, tribes, non-profit organizations, and small landowners throughout the Pacific Northwest and Canada. Dr. Berg provides a unique mix of forest management and harvest design with an environmental emphasis. His background is in riparian forest design and restoration, systems planning and designs; terrestrial habitat design, watershed analysis and planning, forest research, and ecological engineering. These skills provide his clients with a solid foundation of experience. Dr. Berg values the working relationships with other scientific professionals in the natural resource profession.

Mr. Chris Maser:

Mr. Maser has spent over 25 years as a research scientist in natural history and ecology in forest, shrub steppe, sub-arctic, desert, coastal, and agricultural settings. Trained primarily as a vertebrate zoologist, he holds B.S. and M.S. degrees from Oregon State University. He has worked as a research mammalogist in Egypt and was a research mammalogist in Nepal. He was a research ecologist with the U.S. Department of the Interior, Bureau of Land Management for twelve years and a landscape ecologist with the Environmental Protection Agency for one year (1990-1991). Presently, Mr. Maser is an independent author as well as an international lecturer, facilitator in resolving environmental conflicts, vision statements, and sustainable community development, and an international consultant in forest ecology and sustainable forestry practices. He has written over 260 publications, including numerous books, such as: "The Redesigned Forest" (1988); "Forest Primeval: The Natural History of an Ancient Forest" (1989); "Global Imperative: Harmonizing Culture and Nature" (1992); "Sustainable Forestry: Philosophy, Science, and Economics" (1994); "From the Forest to the Sea: The Ecology of Wood in Streams, Rivers, Estuaries, and Oceans" (1994, with James R. Sedell); "Ecological Diversity in Sustainable Development (1999); "Forest Certification in Sustainable Development" (2000, with Walter Smith). He has worked in Canada, Egypt, France, Germany, Japan, Malaysia, Nepal, Slovakia, Switzerland, and various settings in the United States.

Dr. Steve Radosevich:

Steven Radosevich has been a professor of Forest Science at Oregon State University since 1983. Before relocating to OSU, he was an associate professor of Botany at the University of California, Davis. His current research and teaching includes early stages of forest succession, ecology of weed species, influence of humans on plant succession, and the ethics of natural resource development. He is the Program Leader of the OSU Sustainable Forestry program and member of the Sustainable Forestry Partnership. His teaching includes the introductory graduate course on "Current Issues in Forest Science" and "Weed Ecology." He also teaches jointly two

interdisciplinary courses on sustainable forestry and ethical issues in the natural resource sciences. Dr. Radosevich is the author of the first textbook on weed ecology (now in second edition) and more than one hundred scientific papers.

2.3 Assessment process:

MRC was evaluated under the natural forest management option of the SCS Forest Conservation Program. That is, it was the team leader's early determination, later supported by the full team, that the silviculture practiced by MRC results in forest conditions that maintain natural forest attributes sufficiently so as to amount to natural forest management, as contrasted with plantation forest management. The reader is referred to the FSC Principles and Criteria for definitions of natural forests and plantation forests, available on the Web at http://www.fscoax.org/.

PHASE I:

The preliminary evaluation, as conducted by SCS, serves four main purposes:

- Familiarizing SCS with the subject forest management operation
- Providing a more in-depth understanding, for the forest managers, of the FSC certification process
- Determining the relative preparedness of the subject forest management operation to successfully meet the standards of certification; this task amounts to "gap analysis" where the operation's strengths and weaknesses relative to the standards of certification are identified
- Providing a basis upon which SCS can formulate a scope of work and budget for conducting a full evaluation, were the forest managers to choose to go forward.

A preliminary evaluation report is prepared by the SCS auditor and conveyed to the client. Pursuant to FSC guidelines, the preliminary evaluation report is not publicly available, as no public claim is being made.

In the MRC project, the SCS auditor, Dr. Hrubes, spent approximately 3 days in Mendocino County interviewing MRC personnel and conducting an overview reconnaissance of the property. A report was submitted to MRC approximately 60 days after the field reconnaissance. The report identified subject areas that merited focused attention by MRC management personnel. In the following months, MRC focused on addressing the deficiencies identified in the preliminary evaluation report. During this period of time, there were periodic communications between SCS and MRC, focusing on the progress made in addressing the issues raised in the preliminary report.

PHASE II:
Commensurate with the size of the land base being evaluated, the Evaluation Team conducted a 10-day field investigation in July 1999. Prior to and during the field evaluation, face-to-face and telephone consultations were conducted with a cross section of regional stakeholders including

regional and local environmentalists, local governmental personnel, public agency personnel involved in the regulatory oversight of commercial forestry in California, and members of the business community. The primary purpose of this consultation was to solicit perspectives and opinions about MRC and the nature of the interaction between the company, its employees and representatives, and the "regional community", largely defined as Mendocino County, California.

The purposes of the July 1999 field investigations were to: 1) through discussions with company resource professionals and through reconnaissance-level inspections of the forest, familiarize the Evaluation Team with the MRC land base and the management operations designed and executed by company staff; 2) gather and evaluate available data already generated by MRC staff; 3) conduct interviews with MRC employees, contractors, and members of the local affected communities as well as relevant public agency employees; 4) review financial and other corporate information.

Subsequent to the fieldwork, in August and September 1999, the team collaboratively authored the draft report, which was then reviewed by MRC personnel for matters of factual accuracy. This revised version of the report was prepared in response to those client comments. As the outcome of the Phase II evaluation did not entail award of certification, no public summary report was prepared, pursuant to FSC guidelines. While some environmental stakeholders have charged the process with secrecy because a report was not issued during the 1999 evaluation, the FSC clearly directs that a public report need not be issued if certification is not to be awarded. We are unaware of a single instance in which a public report has been issued for an evaluation in which the team decided that certification was not warranted.

PHASE III:

Reflecting the fact that Phase III of the MRC evaluation entailed a resumption of the process after a 14 month period during which MRC continued to institute changes in management policies and practices in response to the preconditions issued the prior year, the team focused its attention primarily on the preconditions. The full team reconvened in Mendocino County in early September 2000 for 5 days to investigate the extent of progress made by MRC in addressing the pre-conditions. Prior to reconvening, the team performed a desk audit of additional planning documents developed by MRC subsequent to the Phase II evaluation. In particular, the team reviewed MRC's new Management Plan and the Option A document.

The 5 days in county were devoted to:

- Interviews and briefings with MRC senior personnel, particularly with respect to key issues such as the company's accomplishments in addressing the preconditions
- Field reconnaissance trips, focusing on inventory blocks (subdivisions of the ownership) that had been the focus of landscape planning efforts between 1999 and September 2000
- Site visits to the Ukiah and Willits sawmills to investigate worker issues

- Interviews, over the telephone and face-to-face, with local environmental stakeholders and agency personnel
- Synthesis and re-scoring of the criteria for which Phase II pre-conditions had been stipulated
- Redrafting of the terms of the conditions to reflect the status of the MRC operations as of September 2000.

Shortly prior to finalization of this certification report, SCS learned that MRC had hired a new company president, Mr. Richard Higgenbottom. On October 26, 2000, representatives of both SCS and Smartwood interviewed Mr. Higgenbottom for the purpose of confirming his personal commitment to the certification process and to the conditions that are being stipulated as part of the award of certification. Based upon that interview, both certifiers were assured that the new president will, indeed, keep MRC on the pathway that has been established over the past two years and that is the basis upon which certification is being awarded.

2.3.1 Stakeholder Consultation

Associated with each of the three phases of the certification evaluation process, both certifiers have endeavored to solicit and consider the perspectives of the full range of stakeholders, including but not limited to: local environmental activists, national environmental organizations, loggers and consulting foresters active in Mendocino County, state and federal agency (e.g., CDF, DFG, F&WS, NMFS) personnel, MRC employees and contractors, UC-Cooperative Extension personnel, sawmill owners, members of the County Board of Supervisors, local business people, and the general public.

During Phase I (fall of 1998), and consistent with FSC expectations, both certifiers conducted relatively low-key consultation with selected stakeholders. Consultative efforts included phone interviews as well as, in the case of Smartwood, face-to-face meetings with members of the Board of Supervisors, the Mendocino Forest Council, and environmental activists.

In preparation for the full evaluations in the summer of 1999 (Phase II), SCS and Smartwood convened a joint team of experts that included a rural sociologist. The sociologist was retained for the express task of leading the consultative efforts. During July 1999, the team's sociologist compiled a comprehensive list of stakeholders and began making contacts with selected individuals. During this time period, other members of the evaluation team as well as management personnel at SCS and Smartwood made contact with various stakeholders; particularly, several of the leading local activists.

During the two-week field investigation in July 1999, the full team held six meetings with invited stakeholders. As these meetings were intended to be open to all interested parties, there was welcomed participation of non-invited attendees at both meetings. In all, approximately 80 individuals were invited to these meetings and some 75 actually participated. In addition to the stakeholder meetings, members of the evaluation team engaged in numerous telephone and face-to-face interviews with a cross-section of stakeholders, again including the local environmental activists.

In the period from July 1999, until August 2000, the certification evaluation process was relatively dormant while MRC was responding to the preconditions that had been presented to them at the culmination of phase II. But during this 13-month time period, members of the evaluation team kept abreast of evolving stakeholder attitudes towards MRC, including the ongoing activities and expressions of opinion from the local environmental activists. One member of the evaluation team whose residence is in Mendocino County engaged in regular interactions with the local environmental activists, thereby keeping apprised of their activities and expressions of opinion. As well, other members of the evaluation team engaged in periodic contact with a cross section of Mendocino County stakeholders. Additionally, the evaluation team leader also engaged in regular dialogue with representatives of key national environmental organizations that have been actively involved in FSC, generally, and to varying degrees with the MRC evaluation process. During the summer of 2000, one organization interacted with MRC regarding matters, such as old-growth management and herbicide use, and SCS was kept actively apprised of those developments. So while there was not a focused and structured consultative effort during that 13-month period, members of the evaluation team nevertheless maintained an awareness of ongoing stakeholder attitudes and opinions.

With the resumption of the evaluation process in August 2000, (Phase III), active consultation with stakeholders was also resumed. The approach for gathering stakeholder input as part of the resumption of MRC's evaluation was developed through conference calls and email interchanges between the members of the evaluation team. Team members Robert Hrubes, Yana Valachovic, and Mark Baker took the lead in this effort. It was decided that the primary purpose of stakeholder input for this part of the evaluation was to gather information that would help the team determine the extent to which MRC had satisfied the preconditions set forth the year previously, and secondarily, to assess continued compliance with the broader guidelines for certification. Given that our primary goal was to ascertain stakeholder views regarding MRC's performance relative to the precondition issues, we determined that a series of in-depth phone call interviews would be the most effective approach to obtain detailed input from a broad range of stakeholders. Hrubes, Valachovic and Baker jointly developed questions to guide the interviews. The questions were primarily drawn from issues identified in the preconditions, many of which were themselves responsive to stakeholder concerns raised in 1999. Two sets of similar questions were created; question set one was more technical than question set two. Both sets of questions were always sent to any person contacted who expressed a preference for responding in writing rather than being part of a lengthy phone interview.

We chose a representative sample of people to contact from the various stakeholder groups in the county. We prioritized whom to contact in two ways: a) people who had attended one of the six meetings we held during the initial evaluation or who provided the evaluation team with written input, and b) people who were identified while conducting phone interviews as being particularly knowledgeable about MRC's activities during the prior year. While classifying people into different groups can be problematic, the following indicates how many individuals were contacted and interviewed from each category of stakeholder: environmentalists - 8; restorationists - 2; agency personnel - 5; registered professional foresters - 4; land trusts - 2; licensed timber operators and contractors (including a couple of woods workers) - 5; Native

Americans – 2; local tribal rancherias - 2; others - 5. People whom we tried to reach and with whom messages were left at least once included: environmentalists - 5; restorationists - 2; registered professional foresters - 2. Mark Baker conducted the great majority of phone interviews.[1] For each interview, detailed notes were compiled. The complete set of notes was distributed to the entire evaluation team. Several individuals expressed a preference for responding in writing rather than over the phone. They were sent copies of the question sets and asked to return their responses to the ISF/Smartwood office in Redway before the field component of the evaluation began. The written comments we received were also circulated to the entire team. The quality of information that we were able to elicit through lengthy one-to-one exchanges exceeded the depth of information/insight usually generated at public hearings. Given our purpose, we were satisfied with the soundness of our methods.

Throughout the field portion of the evaluation, the team continued to receive written comments. Additionally, on the morning of September 8, the entire evaluation team met with two members of the coastal community (at their request) who are notably active local residents in terms of the depth of their concern and their opposition to industrial forest management in the county. Mark Baker also visited the Mendocino Environmental Center on the afternoon of September 5 to discuss their perspectives on MRC and to identify possible contacts with the forest worker community.

In total, then, the multi-phased certification evaluation process included extensive stakeholder interaction during each phase that constituted, collectively, an extraordinary level of consultative effort relative to FSC norms. Beyond doubt, the evaluation team was fully informed as to the opinions and attitudes of the local environmental activists, as well as other stakeholders across the spectrum.

2.3.2 Incorporation of Stakeholder Input/Concerns

A challenge faced by a certification evaluation team is to, first, reconcile often times conflicting stakeholder input and then to synthesize that input with the team members' expert judgments[2], all in the process of reaching a certification decision. In the MRC project, the strongly held views of the mobilized and predominantly local environmental activists stand in clear contrast to views held by other stakeholders, both local and regional. While some local environmental activists consider award of certification to MRC to be outrageous, other stakeholders view MRC as a leader of a new generation of industrial forest owners/managers, highly worthy of receiving certification with conditions for needed improvements. Clearly, the evaluation process cannot be simultaneously and equally responsive to the views of all stakeholders. And the multiplicity of stakeholder perspectives must be, in turn, synthesized or integrated with findings and

[1] Our decision to not hold focus group meetings or open public meetings was supported by the fact that not one person contacted by phone recommended that a public meeting be held in lieu of or addition to the phone interviews/written comments.

[2] The certification process is fundamentally an exercise of gathering information to enable structured expert judgments made by an interdisciplinary team of bio-physical and socio-economic scientists and practitioners. Information is gathered through numerous means including field inspections, document reviews, interviews with staff forestry personnel and consultation with stakeholders.

conclusions made by the team as the result of direct field observations and other sources of information.

With regard to the MRC evaluation, the concerns expressed by the environmental community were, in fact, both heard and substantively incorporated into the conditions that are being stipulated as part of the proposed award of certification. As the conditions reveal (discussed later in this public summary report), MRC is being required to make substantive additional progress in several key areas, such as:

- Management planning, landscape analysis and the assessment of cumulative effects--all of which impact annual harvest levels
- Old growth delineation, preservation and management
- Reserves and special management (e.g., high conservation value) areas
- Stewardship performance standards for staff foresters

We note that the evaluation team endeavored to be responsive to comments and input of other stakeholders, as well. For instance, a common opinion expressed during the Phase II evaluation was that MRC did not have a sufficient demonstrated track record to warrant certification, at that time. While this widespread stakeholder opinion was not the ultimate determinant of the outcome of the Phase II evaluation, the team nonetheless did concur and certification was not awarded upon completion of the 1999 evaluation.

2.4 Guidelines (Evaluation Criteria):

The starting point for all natural forest management evaluations conducted under FSC-approved SCS protocols is the SCS Forest Conservation Program Generic Evaluation Criteria for Natural Forests. These criteria, 18 in all and aggregated into three *program elements*, are expressly designed to fully map the FSC Principles and Criteria.

The Forest Conservation Program evaluation criteria, organized into three program elements, are:

Element A: Timber Resource Sustainability	A1: Harvest Regulation
	A2: Growth and Stocking Control
	A3: Pest and Pathogen Management
	A4: Forest Access
	A5: Harvest Efficiency and Product Utilization
	A6: Management Planning and Information Base
Element B: Forest Ecosystem Maintenance	B1: Forest Community Structure and Composition
	B2: Long-term Ecological Productivity and Health

	B3: Wildlife Management Actions, Strategies and Programs
	B4: Watercourse Management Policies and Programs
	B5: Pesticide Use, Practices and Policies
	B6: Ecosystem Reserves
Element C: Financial and Socio-Economic Considerations	C1: Financial Stability
	C2: Community and Public Involvement
	C3: Public Use Management
	C4: Investment: Capital and Personnel
	C5: Employee and Contractor Relations
	C6: Legal and Regulatory Compliance

As is detailed in the Operations Manual and the evaluation criteria document, both publicly available, the evaluation criteria each are comprised of a written description of scope and focus as well as a set of *scoring guidelines* that are designed to assist the evaluation team in assigning scores on a 100-point scale. The Operations Manual contains the *generic criteria* that form the starting point for all evaluation under the Forest Conservation Program.

Per FSC requirements, SCS evaluation teams modify the generic criteria to reflect the regional and case-specific context. The "regionalization" of the generic criteria most commonly entails modifications to the scoring guidelines. Regionalization of the criteria also takes into consideration draft FSC regional guidelines, where they exist. In regions with formally endorsed FSC regional guidelines, those guidelines are expressly incorporated into the SCS generic criteria.

In addition to modifying the generic criteria themselves, the regional context is reflected under the SCS protocols by the utilization of normalized weights of relative importance that are applied to the criteria. By employing weights of relative importance, the team is able to emphasize or de-emphasize certain criteria, in reflection of regional circumstances. Pursuant to SCS protocols, weights of relative importance for the criteria are developed prior to and independent of the assignment of performance scores.

At the time that the Phase II full evaluation was conducted, the MRC evaluation represented the fifth application of the Forest Conservation Program evaluation criteria in the Pacific Northwest region. With each application, the scoring guidelines, which, in part, comprise the evaluation criteria, have been modified to reflect the regional circumstance. These standards have been explicitly evaluated by the Forest Stewardship Council and found to be fully compatible with the FSC's International Principles and Criteria. An Operations Manual, available from the SCS Oakland office, presents the evaluation process in detail as well as the generic evaluation criteria.

Though not yet endorsed by the FSC Board of Directors, and thus not mandatory for use by accredited certifiers, there are draft regional FSC guidelines that have been developed by a working group of FSC members in the Pacific Northwest region. Wishing to be pro-active regarding emerging standards of exemplary forest management in this region, the SCS

evaluation team chose to incorporate selected components of the draft FSC regional guidelines into the scoring indicators employed in this project. Additional modifications to the criteria (principally the scoring guidelines sections of the criteria) were made, largely based upon interactions with members of the FSC Pacific Coast regional working group. As well, copies of the draft evaluation criteria were made available to individuals that attended the stakeholder meetings during the summer of 1999. Over 30 copies of the criteria were made available through that means.

Ultimately, the criteria employed in the assessment of MRC represent the collective perspective of the evaluation team as to the definition of exemplary forest management in the North Coast of California sub-region of the Pacific Northwest region. Pursuant to SCS and FSC protocols, the standards employed in the MRC evaluation are publicly available to any interested party, upon request, from SCS.

2.5 PEER REVIEW

A draft version of this public summary report was peer reviewed by three forest science experts:

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

Dr. Dominique Irvine, Social Scientist
Dominique Irvine is a Consulting Assistant Professor in the Department of Anthropological Sciences at Stanford University. She received her MFS in Forestry and Environmental Studies at Yale University in 1978, her PhD in Ecological Anthropology at Stanford University in 1987, and then carried out postdoctoral research with the Smithsonian Tropical Research Institute. From 1988 to 1995, she worked at Cultural Survival, Inc, first as Director of Indigenous Resource Management (in Latin America), and later as Field Program Director (worldwide). During this time she worked to develop resource management programs with indigenous federations, promote appropriate markets, and advocate for policies that help to combine social and environmental goals for indigenous peoples and local communities in forest areas. In pursuing these policy goals, she helped to found the Forest Stewardship Council, where she served two terms on the FSC Board of Directors. She currently coordinates the FSC Social Working Group, and is a member of the FSC Pacific Coast Regional Working Group.

Ron LeValley, Wildlife Biologist
Ron LeValley received his M.A in Biology at Humboldt State University in 1980. He is the founder and Senior Biologist of Mad River Biologists, a consortium of biologists organized in

1981 and performing wildlife inventory and assessment work. Much of the work that MRB performs is related to forestry and wetland issues. Ron has been involved in inventory and planning involving wildlife in the northcoast forests for over 20 years, beginning with wildlife inventories on the Hoopa Tribal forest lands and continuing on timberlands of a broad variety of ownerships. For the past 10 years, MRB has provided all of the wildlife and botanical assessments for the Yurok Tribe. Beginning in 1992, Ron helped develop and coordinate a training program under the guidelines of the Pacific Seabird Group's Marbled Murrelet Inland Survey Protocol. Virtually all of the Marbled Murrelet surveyors in California and southern Oregon have gone through his training program. Ron presently serves as an Associate Editor for the ornithological journal *Western Birds.*

The comments of the peer reviewers were duly considered in the finalization of this public summary report.

3.0 FINDINGS, CERTIFICATION DECISION AND CONDITIONS

3.1 General discussion of findings:

Whereas the collective judgment of the evaluation team at the conclusion of Phase II was that award of certification was not warranted[3], progress made by MRC from July 1999 to September 2000 was found by the team to be both substantive and responsive to the preconditions. In particular, the team found that MRC had made significant progress in:

- Developing a written management plan that establishes the company's management philosophy and policies regarding key matters such as: habitat management and protection, old growth preservation and management, resource inventory and data collection, harvest scheduling and landscape planning, watershed analyses, roads management, herbicide use, WLPZ management, and performance standards for staff foresters
- Developing an interim long-term sustained yield harvest schedule (i.e., the Option A document) that expressly considers harvest versus growth and that utilizes reasonable and empirically-based estimates of growth
- Developing and beginning to implement landscape-level planning protocols that provide a more robust basis upon which to establish allowable harvest levels based upon site capacity, resource conditions, and field-level management considerations
- Elaborating a more meaningful working definition of "variable retention" silviculture in which the extent and spatial distribution of leave trees is, in fact, variable and responsive to site-specific circumstances and in which the general extent of retention is higher than was the case during the initial attempts to implement variable retention (whereas variable retention largely entailed leaving 10% of the pre-harvest basal during 1999, the 2000 implementation of variable retention has resulted in an average retention of 20% distributed in clumps and individual trees; retention levels above the new baseline can be prescribed, depending upon site stability data)

[3] The evaluation team specified 9 preconditions that required MRC's attention and progress before it was felt that award of certification would be justified. While the text of these pre-conditions are not part of the public record—pursuant to FSC policies—the reader can nonetheless understand the nature and scope of the preconditions by examining the "key conditions" that are described later in this report.

- Expanding the technical expertise of the professional staff through additional hires, focused training and the retention of appropriate outside consultants
- Elaborating an old-growth protection policy and ecosystem reserve system that employs more ecologically appropriate definitions and that endeavors to identify and appropriately manage areas of "high conservation value" (HCV), per the FSC definition and policy as contained in the Principle 9 of the FSC Principles and Criteria
- Developing better and more substantive means of communicating and interacting with the public.

In response to these observed improvements, the evaluation team reconsidered the scores it had previously assigned to the evaluation criteria (Phase II scores). As with the prior year's evaluation, scores were arrived at through a consensus process. Of the 18 criteria, four were assigned substantially higher scores, four were assigned moderately higher scores, and five were assigned slightly higher scores. In the judgment of the evaluation team, no reductions in evaluation criteria scores were warranted when assessing MRC's 2000 performance level relative to 1999. In aggregate, 10 of the 18 criteria were assigned scores in excess of the 80-point threshold of exemplary performance while 8 criteria were assigned scores below the threshold of exemplary performance.

As described previously in this report, and in more detail in the Forest Conservation Program Operations Manual, the individual criterion scores are aggregated into importance-weighted average scores for each of the three program elements. Based upon the observed performance and the scores assigned as well as the weights of relative importance that had been previously developed by the team, the program element weighted average scores for the Phase III evaluation were:

PROGRAM ELEMENT SCORES, SEPTEMBER 2000	
Element A: Timber Resource Sustainability	**82**
Element B: Forest Ecosystem Maintenance	**80**
Element C: Financial and Socio-Economic Considerations	**83**

These aggregate scores compare favorably with the decision rule for award of certification, which requires that each of the three program element scores must be 80 points or higher.

3.1.1. Summary of Findings Relative to the FSC Principles:

Whereas certification is awarded on the basis of scores assigned to the SCS Forest Conservation Program evaluation criteria, certificate holders must also be expressly found in compliance with

the FSC principles.[4] Under the accredited SCS protocols, this is assured by specification of *fatal flaw guidelines* that are found interspersed throughout the evaluation criteria (see the stand alone criteria document). Failure with respect to a fatal flaw guideline precludes award of certification regardless of the strengths in other program areas.

In the judgment of the evaluation team, MRC's management program, while it has a number of observed deficiencies, is on balance reasonably compliant with each of the relevant FSC principles (principle 10, on plantations, is not applicable to this natural forest management operation). That is, the team concludes that the observed deficiencies do not constitute FSC principle-level non-compliance. As such, specification of conditions rather than preconditions is warranted.

Below, we present a summary of the company's strengths and weaknesses as observed by the evaluation team, formatted according to the FSC principles. In each case, the team found that the strengths sufficiently outweigh the weaknesses so as to enable a finding of principle-level compliance.

Principle/Subject Area	Strengths	Weaknesses
P1: FSC Commitment and Legal Compliance	• MRC is seldom cited by CDF for rules infractions • CDF inspectors and other state review agency personnel as well as federal agency personnel have a positive opinion of MRC and the company's efforts to meet its statutory obligations • MRC senior personnel have been active participants in state and federal forest practice deliberations; the company endeavors to manage its property to a level in excess of regulatory minimums • MRC is genuinely committed to the FSC principles and criteria and are involved in the FSC Regional Guideline development process	• Some field staff tend to view the THP process as a nuisance rather than as a vehicle for assuring the public that MRC operations are compliant with the Forest Practices Act • A vocal minority believes that MRC is not complying with pertinent environmental and forest practice statutes and that CDF has failed to enforce those statutes by approving MRC's timber harvest plans.
P2: Tenure & Use Rights & Responsibilities	• MRC has clear and uncontested fee-simple title to their property and with a land use zoning (primarily zoned TPZ) that is compatible with their business	• MRC needs to make substantive progress in executing conservation easements on Type 1 "Old-growth" to enhance community trust.

[4] Principle-level compliance does not assume or require compliance with each of the criteria that elaborate upon a FSC principle. Instead, it is required that certified operations, over the total scope of each principle, be deemed compliant.

	activity. • Property boundaries and resources are secure. • MRC's efforts to explore conservation easements and the development of a pilot carbon sequestration project illustrate long-term commitment and stewardship.	
P3: Indigenous Peoples' Rights	• MRC has had little interaction with the tribes, but staff foresters do comply with state forest practice requirements regarding notice to nearby tribal groups of proposed activities. • MRC has in place a permit program to facilitate traditional resource use by the tribes. • The forestry staff has demonstrated a commitment and ability to protect cultural and archeological , resources.	• While native American rights have not been abridged, MRC could be more affirmative in dealing with local rancherias rather than relying on perfunctory requests for information and the tribal form letters written in response.
P4: Community Relations & Workers' Right	• Relationships with employees and contractors is generally very positive and much improved over the prior ownership • MRC has raised general salary levels of its professional forestry staff, relative to the prior landowner • Regarding community relations, the wide disparity in stakeholder perspectives is both notable and challenging. MRC has owned the property for 2 years and has a mixed, but improving reputation in the community. The company has an extensive community outreach program and operates with a very high level of openness. • Since the summer of 1999, MRC senior staff have made good progress in improving the tenor of communications with local stakeholders • The company is a major employer in the region, supporting woods employment, as well as primary and secondary processing	• MRC has made improvements in communication with the surrounding community, but need to continue to let actions speak more for themselves • MRC must continue to search for means of more effectively interacting with their local detractors • Management planning must incorporate, more explicitly than has been the case, the results of social impact evaluations.

	employment. No other industrial landowners in the county are nearly as vertically integrated.	
P5: Benefits from the Forest	• MRC is proficient at managing their timber resource for optimal financial recovery. There is little evidence of product wastage and inefficient merchandizing of wood products. • The current test runs of tanoak flooring will, if proven to be financially viable, further diversify the local natural resource-dependent economy • With four in-county manufacturing and distribution facilities, MRC's total economic contribution to the regional economy is without peer in the region. That is, the regional economic benefits of MRC's value-added processing compare favorably to industrial norms • MRC's silvicultural strategies will lead to enhanced regional economic benefits in the future, as inventories and average stem diameters increase.	• MRC needs to continue striving for optimal balancing of market and non-market benefits accruing from their forest estate.
P6: Environmental Impact	• MRC's long-term management goals entail a continuous increase in timber inventory as well as improved aquatic and terrestrial habitats. • MRC has initiated an extensive restoration program and is significantly upgrading roads and riparian conditions. • MRC is actively investigating alternative/less toxic herbicide compounds as well as non-chemical treatments. The company is committed to reducing and eventually eliminating herbicides. • MRC has developed special habitat and old-growth protection policies. • MRC's old-growth policies stand well above comparable policies of other industrial landowners in the	• In the judgment of the evaluation team, MRC's harvest prescriptions in hardwood dominated stands occupying former conifer sites are too influenced by financial considerations rather than restoration objectives. Harvesting of conifer trees in such stands must credibly contribute to the ecological restoration of the site. • MRC must assess cumulative effects of timber harvesting over time and space more effectively. • Additional work is required to expand the system of reserve/reference areas, as per criterion 6.4.

	county. • MRC's WLPZ management policies exceed regulatory requirements and industrial norms. • MRC's variable retention silviculture (particularly as it has evolved in the past year) and the long-term transition to selection silviculture substantially enhances stand-level and landscape-level biodiversity and minimizes the adverse visual impacts of timber harvesting. • MRC is planting only native tree species (redwood and Douglas fir) and is not employing genetically modified organisms • MRC has supplemented their wildlife and fisheries biologist staff with a full-time ecologist. • The annual allowable cut is being further adjusted by the landscape planning process.	
P7: Management Plan	• MRC has completed a management plan and a CDF approved Option A. Both documents are publicly available on the company's web site and summaries of their inventory data are also available. • MRC has developed and is actively implementing a landscape planning process to guide site-specific management decisions. • MRC is effectively identifying and appropriately managing areas of high conservation value	• The company intends to, but has not yet committed to, developing a state-sanctioned Sustained Yield Plan (SYP) or equivalent. • THPs need to address cumulative effects more effectively. • Public transparency of the timber harvest planning process should be expanded.
P8: Monitoring & Assessment	• MRC is currently completing a newly expanded timber inventory for the entire property. • Concurrent with the re-inventory process is an assessment of habitat components (snags, wildlife trees, retention, old-growth Type 1&2 forest areas), watershed conditions (roads, slope stability, riparian conditions, restoration priorities), and field biological surveys (fish and fish habitat, T&E species).	• MRC's annual allowable harvest level is subject to additional landscape level analysis and may require downward adjustment. • The management plan would benefit from an expanded section pertaining to the systematic monitoring of plan implementation and effectiveness.

	The newly designed landscape planning process will incorporate the results of these surveys. • Top management has developed and is now employing a stewardship performance appraisal form that assesses the extent to which field foresters are meeting the company's stewardship objectives.	
P9: Maintenanc s of High Conservation Value Forest	• MRC senior managers are committed to complying with the FSC's policies regarding high conservation value forests. The senior forestry staff are actively engaged in FSC policy matters and are fully conversant in HCV issues. • The old-growth definitions have been improved to include species-specific and ecological characteristics that improve upon age and size definitions. • MRC has completed mapping of all FSC Type I forests (un-entered old-growth), initial mapping of Type II forests (entered old-growth with ecological functions) and Type III forests (secondary forests with widely scattered residual old-growth trees). Protection policies follow the FSC classifications: Type I precludes harvest and may include development of conservation easements; Type II and III include preservation of ecological functions and may include some single-tree selection.	• MRC must demonstrate to the community that their old-growth and reserve system policies protect high conservation value forest areas and their attributes.
P10 – Plantatio s	Not applicable	Not applicable

3.2 Certification decision:

Based upon the scores assigned[5] to each of the 18 evaluation criteria and the importance-weighted aggregate scores calculated for each of the program elements, it is the recommendation of the evaluation team that certification be awarded to MRC for a 5-year period, subject to

[5] Scores are assigned by the team on a consensus basis.

annual audits. Because some criteria were assigned scores less than 80 points, the team also specified conditions that are aimed at raising MRC's performance level in those specific subject areas. The conditions are presented, below. It is further recommended that for the first annual audit that the entire evaluation team be reconvened, so as to provide full continuity and extraordinary oversight of MRC's progress in addressing the stipulated conditions.

Prior to acting upon the evaluation team's recommendation, this certification report was peer reviewed by three outside experts. The comments of the peer reviewers were considered in the finalization of this report.

3.3 Conditions attached to the certification:

The following conditions have been stipulated by the evaluation team to be part of the certification contract because of observed weaknesses with respect to several criteria. The evaluation criteria for which MRC's performance needs improvement to exemplary levels are:

A1: Harvest Regulation
A2: Stocking and Growth Control
A6: Management Planning and Information Base
B1: Forest Community Structure and Composition
B3: Wildlife Management Strategies, Actions and Programs
B5: Pesticide Use, Practices and Policies
B6: Ecosystem Reserve Policies
C2: Community and Public Relations

Key Conditions (Prior Pre-Conditions)

Condition 2000.1 (A1): Prior to commencement of the year 2001 harvesting season, MRC must fully complete at least five of the ten inventory block plans employing the landscape analysis procedures that were reviewed by SCS during the 2000 certification evaluation. By the end of calendar year 2001, MRC must complete the remaining inventory block/landscape analysis plans, adjusting harvest levels in each inventory block/landscape analysis unit as the plan is completed. This means the annual allowable harvest must be reduced accordingly, if so indicated by the data, but not moved higher than its present level.

These landscape analysis plans must present an analytically based design and lay out of the timber harvest, over time and space, *that expressly considers and minimizes adverse cumulative effects* while simultaneously maximizing positive cumulative effects to the greatest extent practicable (see examples in addendum to this condition). In laying out the harvest schedule (annual harvest levels and the planned locations and timing of harvest units) for each inventory block, the plans must fully reflect actual conditions in the field (e.g., that WLPZs are now and will increasingly be subject to numerous constraints and limitations on the extent and intensity of timber harvesting). This said, we note that MRC expects the company-wide allowable harvest level to be lower upon completion of the inventory block/landscape analysis plans and commits

that under no circumstance will it be higher than the state-approved harvest levels contained in the Option A document.[6]

Condition 2000.2 (A2): Within 4 months of award of certification, MRC must produce and employ a revised and expanded version of the forester performance evaluation form. Examples of performance indicators that should be considered for the expanded form include:

- Miles of roads closed or storm-proofed
- Acres of forest reserved from active timber harvesting
- Percentage of harvesting laid out under selection and variable retention silviculture
- Quality of variable retention lay out and implementation
- Amount of hardwood dominated stands reserved from harvest or rehabilitation, for purposes of "ecological rest"
- Number of old-growth and wildlife trees reserved per harvest unit.
- Frequency and severity of forest practice violations
- Effectiveness in implementing the inventory block/landscape analysis plans

Condition 2000.3 (A6): Within 2.5 years of award of certification, MRC must complete an "umbrella" management plan that is the functional equivalent of a Sustained Yield Plan, pursuant to the California Forest Practices regulations. It is the evaluation team's strong preference that MRC, in fact, prepare and have approved a SYP, with submittal to the California Department of Forestry and Fire Protection within two years of award of certification. Upon submittal to the CDF, MRC must take all actions within its own control to expedite plan approval.

Condition 2000.4 (A6): Within 3 months of award of certification, MRC must develop and begin to implement a written action plan to expand and diversify its professional and technical staff to strengthen the expertise within the Company needed to accomplish all the conditions attached to this certificate and assure ongoing stewardship. Areas of expertise that should be considered include: landscape ecology, selection silviculture, cumulative impact assessment, rural sociology/community involvement, and non-endangered species wildlife biology.

Condition 2000.5 (A6): Within 4 months of award of certification, MRC must develop and make available (e.g., on the company's Web site) a concise cross reference or guide that informs stakeholders as to where, within MRC's publicly available planning documents, there can be found a summary of plan components set forth in FSC Criterion 7.1 (a)-(i):

a) Management objectives
b) Description of forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands
c) Description of silvicultural and/or other management system, based on the ecology of the forest and information gathered through resource inventories
d) Rational for rate of annual harvest and species selection
e) Provisions for monitoring of forest growth and dynamics

[6] The timing of the allowable harvest calculation process, as set forth in this condition, is premised on our belief that the integrity of the management planning process is best maintained by allowing the inventory block/landscape analysis plans to dictate the allowable harvest levels (rather than for the certifier to arbitrarily dictate the allowable harvest level), and because these plans will be finished approximately one year after award of certification.

f) Environmental safeguards based on environmental assessments
g) Plans for the identification and protection of rare, threatened and endangered species
h) Maps describing the forest resource base including protected areas, planned management activities and land ownership
i) Description and justification of harvesting techniques and equipment to be used.

Condition 2000.6 (B1): Within 9 months of award of certification, MRC must complete the old-growth (i.e., Type I, Type II and Type III, per draft FSC regional guideline nomenclature) inventory. Upon completion of the old-growth inventory, a report describing the results must be developed and reviewed by outside experts. A separate report must be prepared and submitted to SCS that summarizes the actions taken to protect type 1, 2 and 3 old-growth. A summary of this status report must be made available on the company's Web site.

In the intervening 9 months, MRC must implement and enforce its own old-growth policy as described in the *Management Plan* document. When referring to the term "old-growth," it is understood that "old-growth" is a plant community or ecosystem —not just individual, scattered trees. There may be few stands of old-growth forest on Company property large enough to accommodate interior wildlife species. Nevertheless, each old-growth stand must, to the maximum extent possible, be of such size and configuration so as to protect the integrity of its interior microclimate, species composition, structural components, and processes, as well as other functional abilities, such as quality wildlife habitat. To assure maximum protection of an old-growth stand's ecological integrity, a vegetative buffer (preferably of coniferous trees) of sufficient size must be maintained around the stand or individual trees.

Type 1 areas are already mapped, and mapping of type 2 areas and residual, isolated old-growth trees is under way. This mapping must be completed, integrated into the landscape planning process, and distributed to the public as soon as possible.

Condition 2000.7 (B6): Within one year of award of certification, MRC must develop and begin implementing an action plan for completing and managing an ecological set-aside (reserve) system. This reserve system should build upon the work accomplished to date, provide long-term protection, and develop a representative sample of tree age classes and habitat types such as *old forest/late seral communities* as well as ecologically unique and important biological areas on the ownership. Important biological areas should include but not be specifically limited to areas of sensitive habitats for plants and animals. The action plan must include a substantive effort to employ conservation easements as part of the implementation of the reserve system.

To ensure that the reserve system is not just a collection of isolate ecological anomalies, an analysis must be conducted to assure creation of a reserve system that is ecologically integral and coherent at the landscape scale and also provides for connectivity between habitat types across the landscape.

In completing the ecological reserve system, MRC must develop and document, in a peer reviewed report, the parameters and qualifying characteristics of high conservation value (HCV) forests and, then, establish management policies that will assure adequate protection of areas

within the ownership that are considered HCV forest. Necessary protection is defined as measures that assure the continuance of the attributes or features that qualify specific areas as HCV forest; it need not be a "no harvest" policy in every instance.

Additional Conditions

Condition 2000.8 (A2): Prior to the commencement of the year 2001 logging season, MRC must develop written guidelines for commercial timber harvesting in stands characterized by an overabundance of hardwoods and/or poor conifer stocking. These guidelines must assure that any harvesting in such stands is driven by rehabilitation and restoration rather than conifer volume recovery. Any harvest of conifer trees in hardwood dominated or mixed conifer and hardwood stands must credibly contribute to both short-term and long-term recovery of the ecological balance among the conifer and hardwood species. Application of variable retention harvesting must be consistent with the published literature, assuring variability in actual retention levels, as well as spatial patterns and species composition of retained and planted trees.

Condition 2000.9 (B3): Commencing with award of certification, MRC shall more fully and formally integrate staff and consultant biologists into harvest planning and implementation processes, both pre- and post-harvest. By the time of the first annual audit, MRC must submit to SCS an attainment report that describes progress made in integrating staff and consultant biologists into timber management decision-making and administration.

Condition 2000.10 (B3): Within 2 years of award of certification, MRC must complete wildlife species and habitat inventories that, to a reasonable level of robustness considering the time frame of this condition, provide forest managers with information that can be utilized in the layout and design of timber management activities. Specifically, we suggest that inventories of plants and animals, other than T&E species be conducted. The following protocol is suggested:

(a) Standardized botanical surveys should be conducted and correlated with plant communities, preferably in consultation with the Native Plant Society or The Nature Conservancy with the results of the plant inventory clearly displayed as GIS overlays or working maps.

(b) Standardized wildlife inventories by plant community should be conducted, preferably in conjunction with outside wildlife experts, in which the inventories of key/indicator amphibians and reptiles, birds, and mammals each constitute a separate inventory. The selected key/indicator species should be discussed with SCS prior to conducting the inventories.

(c) With the information obtained through inventories, indigenous plants and all species of wildlife should be explicitly considered in timber harvest planning.

(d) Use the Individual Wildlife Species by Versatility Scores[7] as a tool in timber harvest planning.

(e) As inventories are completed and management strategies have been adopted, periodic monitoring should be conducted to assess the diversity and viability of existing wildlife.

Condition 2000.11 (B3): Within 12 months of award of certification and using appropriate stratified sampling techniques, MRC must develop additional data layers in the company's geographic information system (GIS) to map and track the dynamics of legacy components (such as large and old 'residual' trees, snags, and large woody material) across the landscape. Data for snags should include the location, species, size, condition (hard or soft), and how long they stand. Large woody debris should be inventoried by location and characterized by its diameter, length and how it changes in volume over time--at least in inventory plots. Once these GIS data layers are operational as part of the current resource inventory process, additional data across the totality of the ownership (e.g., old trees outside of type 1,2, 3 old-growth areas, snags) should be gathered and digitized on an ongoing basis, as part of the timber harvest planning process.

Condition 2000.12 (B5): Within 30 days of award of certification, MRC must prepare and make publicly available a written statement that establishes its commitment to reduce chemical herbicide use by 60% over the next four years, and to eliminate all use of chemical herbicides over the long run. At the time of the first annual audit, MRC must demonstrate to SCS' satisfaction that it is on course for achieving the 60% reduction by the end of year four.

Condition 2000.13 (C2): Upon award of certification, MRC must continue to develop and implement new modes for interacting credibly and effectively with the public. This entails such elements as: (1) making THP's and other management planning documents transparent and credible, (2) making more information about planned harvest and restoration activities in a watershed publicly available, (3) establishing standing advisory committees composed of agency personnel and citizens, and (4) continuing to de-emphasize public relations efforts in contrast to increasing transparency and dialogue. Prior to the first annual audit, MRC must submit to SCS an attainment report that summarizes progress made in response to this condition.

Condition 2000.14 (C2): Within one year of award of certification, MRC must demonstrate that the company's modes of communication with pertinent Native American tribes are, at least, commensurate with the level or form of tribal communication with MRC. For instance, if a personal letter is sent by a tribal representative, in response to a THP, MRC should respond in kind rather than relying upon a form letter. Generally, MRC should be open to appropriate opportunities to elevate the quality of communications with potentially affected Native American tribes

4.0 AUDITS

[7] See Appendix 16 of: *Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington. 1985. E. Reade Brown (Tech. Ed.). USDA Forest Service, Pacific Northwest Research Station, Portland, OR.*

As MRC is being awarded a certificate for the first time, there are no prior annual audits conducted of this company by an FSC-accredited certification body.

5.0 PUBLIC INFORMATION ABOUT FOREST MANAGEMENT PLAN AND MONITORING

To date, MRC has developed two central planning documents that are publicly available:

- *MRC Option A Maximum Sustained Productivity Demonstration*. February, 29,2000
- *MRC Management Plan, Policies and Targets*. August 2000

Pursuant to condition A6-3, MRC will be augmenting these publicly available planning documents with additional public summaries (within 4 months of award of certification) and a functional equivalent to a State of California Sustained Yield Plan (within 30 months of award of certification).

As well, MRC maintains a Web site upon which is posted information about the company and its management programs and activities.

Addendum to Condition A1-1:

EXAMPLES OF THE KINDS OF CUMULATIVE EFFECTS THAT MRC MUST ACCOUNT FOR IN ITS LANDSCAPE ANALYSES:

1. Fish Habitat—A timber company is building a road system for timber harvest over a period of 10 years. Assume that the road system will cross 100 salmon-spawning streams when it is completed. The road is built as needed, which means that culverts are installed one at a time. The first culvert is properly installed and spawning salmon can easily pass through it. The second culvert, however, forms an impassable barrier for the spawning salmon. The third and fourth culverts are okay, but the fifth, sixth, and seventh again form barriers to salmon passage. Each successive culvert that is improperly installed, forms a barrier to the spawning salmon. The cumulative effect of each improperly installed culvert progressively eliminates more and more spawning habitat, thus adversely affecting the salmon population's ability to spawn and maintain its biological viability—AN ADVERSE CUMULATIVE EFFECT. By the time the road system is finished, the number of improperly installed culverts reaches 50, and more than half of the spawning habitat is unavailable to the salmon. Why more than half? Because an improperly installed culvert toward the mouth of a tributary used as spawning habitat has a greater affect on the salmon than does a an improperly placed culvert part-way up a stream that has three branches that form spawning habitat and two properly placed culverts.

Now the salmon becomes listed and the timber company hires a fisheries biologist to help manage salmon habitat. The biologist surveys the culverts and identifies those that form barriers to salmon passage. The company in its turn agrees to correct the improperly installed culverts. Each culvert that is reinstalled properly, reopens spawning habitat to the salmon. The cumulative effect of each culvert that is reinstalled properly progressively reopens more and more spawning habitat, thus positively affecting the salmon population's ability to spawn and maintain its biological viability—A POSITIVE CUMULATIVE EFFECT.

2. Habitat fragmentation—A timber company purchased land with a contiguous forest cover and proceeds to clear-cut it with large industrial cuts that are strategically placed on the landscape to minimize costs and maximize profits. The first clear-cut begins the process of habitat fragmentation and each successive clear-cut adds to the fragmentation, which is AN ADVERSE CUMULATIVE EFFECT for the entire forested ecosystem. When the first company has taken what it wants, it sells the land, and a second company purchases it.

The second company, wanting to maximize its profits, takes what little it can find, which completes the ADVERSE CUMULATIVE EFFECT OF HABITAT FRAGMENTATION. The second company then sells the land to a third company.

The third company has a different philosophy than the first two; it wants to restore the forest for future harvest. It therefore protects the best remaining forest habitat and over time restores one forest stand after another. By looking at the landscape patterns created by the existing stands on

GIS through the landscape model, the company prioritizes the restoration stands over time and space in such a way as to get the most habitat value and connectivity out of their efforts. This is accomplished by using relevant watershed analyses, old-growth inventory, botanical and wildlife surveys, and HCV forest inventory, as well as previous and planned timber harvesting activity (and associated cumulative effects) within each water catchment. In addition, each stand selected for restoration is anchored to the maximum degree possible to the habitat reserve system, which consists of isolated unique habitats and connective corridors, as well as the development of a representative sample of common habitat types and tree age-classes. With the restoration of each forest stand, the process of fragmentation is reversed and a progressive connectivity of habitat becomes apparent—A POSITIVE CUMULATIVE EFFECT.

3. Snag patches—The third company, in its effort to restore the forest, inventories the existing snags across its property, characterizing them by species, height, diameter, hardness, and association with living trees. The company then selects those areas with good snags to carry forward into the future as habitat. To protect the snags, the company maintains and/or creates a buffer for forested area around each snag or clump of snags. The company then does a gap analysis to determine where it could most advantageously produce snags over time to fulfill a viable pattern of snag patches in time and space and proceeds to implement their snag recruitment plan across the landscape toward a POSITIVE CUMULATIVE EFFECT.

If the company's policy of restoration stays in-tact through successive generations of owners, the snag patches will not only remain protected through successive cycles of harvest but also will complement surrounding habitat, which means that as the snags gradually decompose, patches of forest tending toward old-growth will emerge across the landscape. Because the company predominantly uses uneven-aged management, the original snag patches eventually become old-growth patches surrounded by a viable sea of healthy "working" forest that is once again continuous across the landscape—A POSITIVE CUMULATIVE EFFECT.