

**St. Louis County
Public Report**

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Introduction

1.1 St. Louis County Land Department Achieves Certification to ISO 14001 and SFI

In October 2004, St. Louis County successfully completed a certification audit to the [2002-2004 Sustainable Forestry Initiative](#)® (SFI) standard and the [ISO 14001 Environmental Management System](#) standard. The SFI 2002-2004 standard is a set of principles, objectives and measures designed to balance commercial forestry practices with long term protection of wildlife, plants, soil and water quality. ISO 14001 is an international standard that sets out a management framework for managing and improving environmental performance.

The audits were conducted by the [Quality Management Institute](#) (QMI), North America's leading management system certification body. The operations audited included:

- forest management planning;
- harvesting;
- forest renewal activities including: site preparation, forest regeneration, use of forest chemicals and management of forest health;
- management of infrastructure development including: road construction, maintenance and obliteration; gravel pits; linear developments and easements; and
- management of recreational trails and cabin leases on tax forfeited lands;

The audit resulted in the successful certification of all St. Louis County Land Department operations to SFI and ISO 14001.

1.2 Report Purpose & Organization

The St. Louis County Land Department, in its [environmental policy](#), has made a commitment to communicate performance regarding its land management activities to the St. Louis County Board, its employees and the public. It is in the spirit of that commitment to transparent, clear and complete information that this report was developed.

The purpose of this report is to provide a summary of the certification audit process and the audit results. The report provides information on how the St. Louis County Land Department has met the requirements of SFI and ISO 14001,

and describes those areas and activities where improvement has been recommended by the external auditor.

This report is a summary of the QMI audit report and the report of the [Regional Technical Expert](#) who participated in the audit. To provide greater context, the report has also been designed to provide the reader with background information on:

- what sustainable forest management, environmental management systems and certification mean; and
- how sustainable forest management, environmental management systems and certification have influenced the policies, practices and performance of the St. Louis County Land Department.

This report has been organized so that the user can choose the level of detail and context they need. For those wanting more detail there are links throughout that will take you to more information on the topics presented.

1.2.1 How This Report Was Developed

This report was developed by the St. Louis County Land Department and was reviewed and approved by the [QMI lead auditor](#) who led the audits of our operations.

1.3 What is Third Party Certification?

Third party certification is an independent verification of policies, practices and on the ground performance to assess conformance to a set of principles, practices and/or standards. In the case of the St. Louis County Land Department the verification was conducted against two standards: the [2002-2004 Sustainable Forestry Initiative](#)® (SFI) standard and the [ISO 14001 Environmental Management System](#) standard.

Third party certification is a mechanism to enable the public, consumers, clients and the organization being audited, that as a result of the independent third party assessment, they can have a level of confidence that a desired level of performance is being achieved.

Third party auditors are responsible for determining whether the organization being audited has met the requirements of the standards to a sufficient level or performance to enable them to be certified. In the case of third party auditors for SFI and ISO 14001, they must be personally certified as being competent to conduct the audit. The auditors must be independent and have no conflict of interest. The certification body (auditing firm) and the audit processes it follows must be accredited by ANSI/RAB, the US national standards body that provides oversight to maintain a robust and credible accreditation and registration system for the U.S. industry (see section 4.4 for background on ANSI/RAB).

1.3.1 What is Sustainable Forest Management Certification?

Sustainable forestry is the practice of managing and conserving all forest resources to meet the needs of society today and for future generations.

Sustainable forestry is:

- **Environmentally appropriate** - management establishes harvest methods that maintain the biodiversity and productivity of the forest
- **Socially beneficial** - management considers local incentives to sustain forest resources by observing long term management plans and ensures continued enjoyment of long term forest benefits by society at large.
- **Economically viable** - management ensures that operations are managed so as to be sufficiently profitable, but not at the expense of forest resources, the ecosystem or surrounding communities.

Sustainable forest management certification involves evaluating forest management practices to determine if they are being conducted in accordance with an agreed set of standards. There are various sustainable forest management certification systems, each having unique requirements. However, all systems have the same common objective -- the promotion of environmentally sound, economically beneficial and economically viable practices in the management of forestlands.

1.3.2 What is Environmental Management System Certification?

An Environmental Management System (EMS) is a framework for managing environmental performance in a manner that is systematic, consistent and measurable.

For an organization to achieve its financial goals it must establish sound systems, controls and procedures to reduce its risks and liabilities and be strategic about its opportunities. Organizations need the same sound systems, controls and procedures to achieve their environmental goals.

Essentially an EMS helps an organization to identify the environmental impacts associated with what it does (its risk and liabilities) and then establish procedures, allocate resources, assign responsibilities and establish on-going processes of evaluation so that it can effectively reduce and wherever possible prevent those impacts and strategically improve performance.

Certification of an environmental management system is verification that the organization has established the necessary controls and procedures to enable it to effectively manage and improve its environmental performance.

ISO 14001 is an internationally recognized standard that sets out the ground rules for developing and maintaining an environmental management system. Organizations who implement ISO 14001 must be committed to preventing pollution, compliance with laws and regulations, measuring and monitoring their performance, and continually improving their performance.

1.3.3 Certification Audit Process

The certification audit process involves four main steps: (1) document review, (2) preliminary assessment, (3) certification audit, and (4) surveillance audits.

The purpose of the document review is to review the policies, procedures, and other relevant documentation that have been established to operationalize sustainable forest management and the environmental management system. Essentially, it is a paper review of what the systems and practices look like and whether they meet the requirements of the standards. To this end, a wide range of documentation including the environmental policy, operating procedures, plans, performance objectives, internal monitoring information, action plans, internal audit reports, records and manuals are thoroughly reviewed.

The preliminary assessment is the same in scope and methodology as the certification audit. The intent of the preliminary assessment is to determine whether the organization is ready to proceed to certification. Essentially it serves as a test run for the certification audit and enables both the organization being audited and certification body to gauge how prepared the organization is to proceed with certification. It is designed to assist the organization and identify any gaps and areas of work that need to be completed in order to meet requirements before proceeding to the certification audit.

The certification audit is the final verification process required for an organization to become certified. This audit compares the implementation of the management system to the requirements of the standard(s). The auditors conduct interviews, examine documents and observe field processes and practices to collect evidence to compare the organizations system and performance against each of the requirements of the standard(s). If there are no major non-conformances, the organization will generally be approved for certification. All minor non-conformances must be addressed by the organization through corrective action plans that are approved by the certification body. Progress with correcting minor non-conformances is reviewed by the certification body at subsequent surveillance audits.

Surveillance audits are conducted annually to ensure that the organization continues to: stay on track with its commitments; meet the requirements of the standard(s); and improve performance. These audits are essentially quick check-up audits to ensure that the organization is not only sticking to the program but also getting better.

Certification is valid for a three year period. At the end of the three years, the organization must undergo another full intensive certification audit to retain its certificate.

2 St. Louis Environmental Management System

2.1 Description of the EMS

2.1.1 What is an EMS?

An Environmental Management System (EMS) is a systems and organizational approach to environmental management. The goal of an EMS is to establish the appropriate controls and processes to incorporate environmental considerations into day-to-day operations. A successful EMS is cost effective, economically viable, based on systems and performance, practical, usable and useful, and focused on continual improvement.

2.1.2 Why is a system needed?

There were two main reasons why St. Louis County chose to implement an EMS.

The first was to ensure that we had systematic processes and procedures to ensure that we are able to meet our commitments to sustainable forest management. We did not want to make commitments without the appropriate organizational structure, procedures, resources, training and performance measurements to support them.

The second was to ensure consistent and measurable performance across all of our operating areas and functions.

2.1.3 Key Features of the EMS

The environmental management system centers on a comprehensive set of procedures that is accessible to all department staff through the Department intranet site. This is the primary method for ensuring that requirements are effectively communicated and that information is current. The intranet site provides staff with access to all of the information they need to make the system work including references to external resources. The Oracle database supporting the information on the site is an efficient and effective means to maintain such a large amount of information and data, while at the same time is easy to navigate and use. All documents pertaining to the system are posted to the web site and updates are communicated clearly to all staff, who are responsible for using and accessing the site.

Performance information, including internal audits, pre-assessment and external audits findings, and management review are available to staff through the

department's intranet site. This enables personnel to see areas in which performance may need to be improved and the management review process that is conducted by the management team.

Training employees is key to ensuring that we meet our commitments to sustainable forest management. Employees require baseline training as well as ongoing training to ensure that they are up to date on both the requirements of their jobs and the latest forest management practices. Training needs were identified for each job position and are reviewed annually. A database is used to track training that employees have received and also to ensure that training requirements are fulfilled.

Adhering to all laws and regulations is a requirement of the EMS. The collection of laws, regulations, guidelines and legal opinions regarding department activities is organized into a legal registry. Departmental personnel, in conjunction with the County's legal advisors, maintain and update the registry so that all departmental staff are aware of applicable laws and regulations regarding activities. We also conduct periodic inspections and audits to ensure that we are in compliance with all laws and regulations that apply to our operations.

Our goal is to learn and improve. Therefore, we have established a process identify and report failures in the system, poor performance and complaints from the public. Each failure or issue is looked upon as an opportunity to improve. There is a system in place to identify root causes and take corrective and preventive actions. Trends and recurring issues are tracked and reviewed by the management team quarterly and annually. The management team also reviews the corrective actions taken and whether they have been effective.

The most important feature of our EMS is that it provides a process to set objectives and targets to improve our performance and to establish action plans to achieve those targets. The management team reviews progress with action plans quarterly to ensure progress.

2.2 Improving Performance

2.2.1 Objectives

The Land Department has identified priorities and set performance goals expressed as objectives and targets. These include:

1. Improving the department's planning process for annual, short term and long term plans.
2. Improving public awareness of St. Louis County Land Department activities and policies.

3. Improving the application of stand-level habitat measures and incorporating design elements into management plans to promote wildlife.
4. Improving the quality of decisions and management of encumbrances related to right of way, utilities, pipelines and other linear developments on state tax forfeited lands in St. Louis County.
5. Promoting overall landscape diversity by managing the collection of distinct elements, features, and qualities across the region.
6. Raising the level of conformance of operators with Minnesota DOT requirements, spill kits, MSDS, threatened and endangered species, reportable spills, and knowledge and awareness of St. Louis County environmental management system.
7. Improving management of land department gravel pit operations.

2.2.2 Internal Audits

Internal audits are similar to certification audits in scope, with the exception that they are done internally by trained staff members. The purpose of these types of audits is to prepare for certification audits by identifying areas that need improvement, or may provide information on gaps regarding the environmental management system or whether the organization is meeting its forest management objectives. The results of internal audits are communicated to all staff and they are planned in such a way as to have enough time before a certification audit to adjust the system.

3 Audit Process & Results

3.1 Audit Scope & Methodology

The audit activities covered all elements of the SFI 2002-2004 Standard and the ISO 14001 1996 Standard. The review covered all resource management, land management and property management activities over which St. Louis County Land Department has direct control and influence.

The audit was conducted in accordance with the verification procedures outlined by SFI and the standards required of accredited certification bodies under the ANSI-RAB National Accreditation Program.

3.2 Audit Team & Regional Technical Experts

The audit team comprised auditors from the Quality Management Institute (QMI) assisted by a regional technical expert from the Minnesota Department of Natural Resources.

The members of the audit team have extensive experience in environmental management systems in the context of the management of forestlands and in conducting SFI and ISO 14001 audits of forestry operations.

The regional technical expert provided additional experience and knowledge of applicable laws and regulations, best management practices and regional issues related to forest management. The expert assisted the auditors by using his local knowledge and subject matter expertise to provide clarification, interpretation and opinions on their observations.

3.2.1 Audit Team Qualifications

The audit team included:

3.2.1.1 Gregor Macintosh (Lead Auditor)

Gregor is a Registered Professional Forester in Canada and has his Certified Forester designation with the Society of American Foresters. He has received certification as an environmental management systems and sustainable forest management auditor by the Canadian Environmental Auditing Association and is an EMS Lead Auditor and an AF&PA SFI Lead Auditor. In his current position with QMI, he leverages his forest industry background and his auditing experience to act as a specialized forestry auditor and program manager. Gregor has conducted audits in the following industry categories: agriculture, hunting, forestry and fishing; lumber and wood products; paper and allied products; and business services. Gregor has forest industry experience as an operations engineer, field supervisor, contract supervisor and foreman.

3.2.1.2 Herb Bax (Auditor)

Herb is a Registered Professional Forester and has received certification as environmental management systems and sustainable forest management auditor by the Canadian Environmental Auditing Association. He has had over 25 years experience working within the forestry sector, which includes his current role as president and manager of KBM Forestry Consultants Inc. and KBM Chile S.A. As a forestry consultant, he focuses on wood supply analyses, auditing, research and development projects. Herb's audit experience is in the following industry categories: agriculture, forestry and fishing; lumber and wood products; paper and allied products; and electric services. He has

participated in several EMS and SFI audits for forestry companies in Canada and the United States.

3.2.1.3 Lynn Penniman (Auditor)

Lynn is a RAB certified Lead EMS Auditor who provides ISO 14001 and AF&PA SFIS certification consultation services to forest products companies in the United States. Lynn uses her hands-on consulting experience of working with environmental management systems and the SFI standard to her benefit when acting as an external auditor. She has organized, participated in and led EMS and SFI audits throughout the U.S. in various industry categories including: agriculture, forestry and fishing; paper and allied products; petroleum refining; primary metal industries; lumber and wood products; and ship and boat building and repairing.

3.2.1.4 Richard Boitnott (Auditor)

Richard is a Registered Professional Forester and is a trained EMS Lead Auditor. Presently, as owner of Boitnott Consulting, Richard provides forest and wildlife management planning expertise, BMP assessments and ISO 14001 and SFI auditing services to his clients. He also has 22 years of experience with International Paper in a variety of forest and wildlife management positions. This included acting as the unit forester responsible for forest management activities on company land, and developing wildlife management programs to be integrated into forest management plans.

3.2.2 Technical Expert Qualifications

3.2.2.1 Michael J Phillips, PhD

For the past 17 years, Dr. Phillips has acted as the Environmental Protection Program Manager for the Minnesota Department of Natural Resources (DNR). His principle responsibility is to provide technical and scientific expertise within the DNR on environmental issues related to soil, air, and water resources, as well as to develop and supervise a statewide forest soils program for public and private forestlands. In addition to this, he is also the senior technical advisor for the Minnesota Forest Resources Council. On the MFRC, his main duty is to coordinate the development of comprehensive forest management and timber harvesting guidelines for all forest land ownership in Minnesota and to develop a monitoring program to assess implementation of program goals. Dr. Phillips is also involved with research and development as a faculty member of the University of Minnesota, Department of Forest Resources.

3.3 Audit Results & Report

3.3.1 Positive Aspects of the Management System

The following positive aspects of the St. Louis County Land Department SFI program and EMS were identified during the audit. The numbers coincide with the Performance Measures in the Sustainable Forestry Initiative (SFI) Standard and the appropriate ISO 14001 sections.

- The Participation Database for outreach activities effectively identifies the hours contributed by employees.
- The St. Louis County Land Department uses a second party auditor augmented by staff from the Land Department to provide an external perspective for the annual internal audit. The audit reviews system conformance, state and federal legal compliance, and conformance to Minnesota forestry Best Management Practices (BMPs). This ensures that the EMS is reviewed annually and improvements incorporated as necessary.
- Excellent use of infrared color photography for checking herbicide application. (SFI PM 4.1.2.1.3)
- The Landscape Management Strategy (LD-SOP-042) recognizes and addresses non-contiguous ownership patterns very thoroughly. (SFI PM 4.1.4.1.1)
- Observed excellent stand-level wildlife habitat retention on all tracts observed during the audit. (SFI PM 4.1.4.1.1)
- Development of harvest timing restrictions to protect wood turtles is an innovative method to combine timber harvesting with protection of a listed species and enhancement of its habitat. (SFI PM 4.1.4.1.1)
- The Employee Development and Performance Plans that are being initiated this year (ISO 4.4.2 Training Awareness and Competence)
- The use of plasticized cards and the Field Operators Handbook is successful, as operators are actually using these resources. (ISO 4.4.6 Operational Controls)

3.3.2 Types of Audit Report Findings

According to standard registration practices, audit findings are classified into three categories:

- **Major non-conformances** – A major non-conformance is a complete absence or breakdown of a required element of the standard or a repeated trend of minor non-conformances. Major non-conformances prevent registration until corrective actions have been implemented and approved by the Lead Auditor.
- **Minor non-conformances** – A minor non-conformance is an isolated event that warrants attention, such as procedures that are not followed or records that are incomplete. Minor non-conformances will not interrupt

registration provided that corrective action plans are developed and approved by the Lead Auditor. Minor non-conformances must be corrected by the next surveillance audit.

- **Opportunities for improvement** – Opportunities for improvement are suggestions made by the audit team and technical experts on how the auditee can improve. These are recommendations only and are not binding on the auditee. These observations do not affect the registration process.

3.3.3 Major Non-Conformances

There were no major non-conformances with either the SFI or ISO 14001 standards identified during the course of the audit.

3.3.4 Minor Non-Conformances

There were no minor non-conformances found with the SFI standard. All of the applicable requirements of the ISO 14001 standard were met except the following minor non-conformances. Action plans for addressing the non-conformances have been approved by the Team Leader and are accepted as appropriate.

Training and Awareness

- The audit team found a general lack of awareness of such legal requirements as Minnesota threatened and endangered species regulations for plants, the Community Right to Know Act, and federal BMP requirements for road construction in wetlands. (ISO 4.4.2 Training Awareness and Competence)
- Internal auditors who have responsibility for auditing garages and gravel pits were not fully aware of applicable regulatory requirements. (ISO 4.4.2 Training Awareness and Competence)

Operating Procedures

- There was no audit evidence that garage maintenance procedures are addressed in operating procedures. This may be one factor leading to legal non-compliance. (ISO 4.4.6 Operational Controls)

Inspections

- Inspections of gravel pits have not been conducted according to the frequency described in LD-SOP-008 and the applicable stormwater permit. Also, the quarterly review of inspections has not checked on compliance with inspection frequency. (ISO 4.5.1 Monitoring and Measurement)

Internal Audit

- 12 of the 36 action items generated from the May 2004 internal audit had exceeded deadlines at the time of this audit. (ISO 4.5.2 Corrective and Preventive Action)
- Action plans developed after the May 2004 internal audit do not adequately capture the regulatory non-compliances identified for garages and gravel pits. As well, not all regulatory non-compliances may have been accurately identified for garages and gravel pits. (ISO 4.5.2 Corrective and Preventive Action)

Administrative

- The Procedure Summary for all Land Department procedures does not include Legal and Other Requirements as required by management system procedure LD-MSP-002 Document Control. (ISO 4.4.5 Document Control)

3.3.5 Opportunities for Improvement

The Audit Team found some items that could be improved to further enhance the effectiveness of St. Louis County Land Department's EMS and SFI program. These items are areas in which it is optional for the Land Department to make changes to its system and by no means obligated to do so.

Forest and Soil Productivity

- Consider whether a threshold level (percentage) rutting within a clearcut or thinning sale needs to be established. To better prevent rutting, a clear definition of rutting needs to be communicated to field level operators. The depth of a rut is defined throughout the system; however, the threshold of rutting that is acceptable (before halting operations) has not been defined clearly. (SFI PM 4.1.2.1.4)
- Consider whether the practice of road and landings area reconciliation should be implemented. One option would be to track and limit the amount of area used for landings to make sure that it fell within an acceptable and defined value. (SFI PM 4.1.2.1.4)
- Consider whether guidelines for scarring residual stems are necessary. When operating on a thinning or near trees that are not to be harvested, there is a potential for damaging adjacent trees. It was noted that there could be guidelines in place to reduce damage to those trees. (SFI PM 4.1.2.1.4)

Fiber Utilization

- Consider whether a stump height standard for clearcut and thinning harvest sales is necessary. Stump heights could be defined in size throughout a contract to maximize utilization of trees. (SFI PM 4.1.7.1.1)

- Consider if utilization of balsam fir needs to be improved—three sites were encountered, two closed and one active. There are few markets for balsam fir, which affects how much residual balsam might be left on a site after harvest. There could be better utilization of the balsam outlined in timber sale contracts to avoid this. (SFI PM 4.1.7.1.1)

Forest Regeneration

- Consider reviewing whether the 30-day timeline to have regeneration surveys submitted to the Forester Inventory Specialist is sufficient. Upon reviewing the standard operating procedure for regeneration, the timeframe to submit regeneration surveys might need to be revised to make sure there is sufficient time to complete and return those surveys. (SFI PM 4.1.2.1.1)

Chemical Use

- Review the participation of St. Louis County in research projects to increase efficiency and reduce chemical use rates. For example a relationship with NCASI is not clear. (SFI PM 4.1.2.1.3)
- Review procedure for delineating herbicide treatment boundary lines to ensure application remains within the treatment area. The standard operating procedure outlining the way a boundary line is identified could be improved upon to make sure the area is delineated more clearly for the applicators. (SFI PM 4.1.2.1.3)
- Consider gathering GPS spray pattern maps to verify herbicide application remains within the treatment area. In effect, this means using GPS to outline the boundary of an area after an herbicide application to make sure that the planned treatment area and the area that was actually treated are the same. (SFI PM 4.1.2.1.3)

Occupational Health & Safety

- Review if the requirements in the Occupational Health and Safety Act regarding portable fire extinguishers and first aid kits are being met. (ISO 4.3.2 Legal and Other Requirements)

Inspections

- Consider how annual 10% inspection sample of non-recreational leases is to be determined. (ISO 4.4.6 Operational Controls)
- Review inspection procedures to ensure documentation accurately reflects on-the-ground performance. (ISO 4.5.1 Monitoring and Measurement)
- Consider including an observation of contouring on the mechanical site preparation inspection list. (ISO 4.5.1 Monitoring and Measurement)

Administrative

- Consider improving the map provided to field operators. (ISO 4.4.6 Operational Controls)
- Ensure attendance at Management Review meetings is recorded on meeting minutes. (ISO 4.6 Management Review)
- Consider identifying in the 2005 Internal Audit schedule specific timeframes for those activities that are conducted during limited times of the year, such as rock crushing operations in gravel pits. (ISO 4.5.4 EMS Audit)

4 Background Information

4.1 ISO 14001

ISO 14001 is a specification standard that is a model for an environmental management system. An environmental management system (EMS) is that part of an organization's management framework that addresses the immediate and long-term impact of its products, services, and processes on the environment. It can be integrated with other management requirements, such as SFI, to achieve environmental and economic goals of reducing pollution, conserving resources and continually improving environmental performance.

It does not establish absolute requirements for environmental performance beyond commitments to compliance with applicable national legislation, regulations and continual improvement. However, an EMS provides order and consistency for organizations to address environmental concerns through the allocation of resources, assignment of responsibilities and on-going evaluation of practices, procedures and processes. ISO 14001 requires a company to state what it does in environmental management and to do what it states.

Here are brief descriptions of the core elements of ISO 14001 and how they relate to each other.

4.1.1 Environmental Policy

The environmental policy is the public statement of the organization's principles and intentions of the organization regarding the environment. The policy establishes the overall sense of direction and provides the framework for developing more specific environmental objectives and targets.

4.1.2 Objectives and Targets

The organization must identify priorities and set performance goals expressed as objectives and targets. As input for setting objectives and targets the organization needs to identify all of those aspects that affect their business and environmental risks. These include:

- environmental aspects of an organization's activities, products or services that have an impact on the environment, either positive or negative;
- legal and other requirements that apply to their operations;
- the views of interested parties;
- business opportunities; and
- technical, operational and economic requirements.

4.1.3 Environmental Programs

Once the organization has established objectives and targets it must then translate those targets into environmental programs. The environmental programs are essentially action plans defining which actions need to be carried out in order to meet objectives and targets.

4.1.4 Roles and Responsibilities

Once the environmental programs are defined, they need to be implemented. This requires establishing roles and responsibilities, which involves setting the organizational structure for responsibility, authority and accountability for implementing actions. Programs must be supported with adequate human and financial resources.

4.1.5 Training and Awareness

All employees, especially the individuals responsible for implementing the EMS, require training so that they understand why and how to fulfill their environmental responsibilities in the context of their work activities.

4.1.6 Communication

The organization also needs systems of communication to ensure interested parties inside and outside the organization are kept informed of the goals and performance of the organization, and about the specific environmental issues, difficulties and other matters that may affect them. Interested parties include employees, the board of directors, shareholders, investors, the local community and the public.

4.1.7 Operational and Document Controls

The integration of environmental management into business operations includes procedures for incorporating environmental measures into other aspects of day-to-day operations. This includes documenting the EMS and developing specific procedures or operational controls. This also involves the development of document control procedures to ensure that information is current, accurate and accessible to the people who require it to carry out their environmental responsibilities.

4.1.8 Monitoring, Measurement and Record Keeping

Monitoring, measurement and record keeping procedures are necessary to document, verify and monitor the results of specific actions and programs as well as the overall effectiveness of the EMS.

4.1.9 Corrective and Preventative Action

Procedures for corrective and preventative action are required to eliminate the causes of actual or potential non-conformances with objectives, targets, regulatory standards and other performance criteria that cause or have the potential to cause damage to the environment.

4.1.10 EMS Audits

EMS audits enable the organization to check the adequacy and efficiency of the implementation and functioning of the EMS.

4.1.11 Management Review

Results of the audit, as well as trends of non-conformances, status of objective achievements and monitoring data are reviewed at the management review meeting. Management reviews are the formal evaluation by senior management of the status and adequacy of the EMS in light of changing circumstances. During the management review, decisions are made on how to improve the EMS and the organization's environmental performance.

4.2 SFI

The purpose of the SFI standard is to measurably improve American Forest & Paper Association (AF&PA) member performance, broaden the practice of sustainable forestry, set new management goals for the entire forestry industry and other forest landowners, and enhance public confidence in forest management.

The 2002-2004 SFI standard is not only a system of environmental principles and objectives, but also includes specific, prescriptive indicators. This standard calls for a land stewardship ethic, which integrates the reforestation, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water resources, wildlife and fish habitat, and forest aesthetics values.

4.2.1 Structure of the SFI Standard

The standard is organized into **principles, objectives, performance measures** and **indicators**. Principles provide the vision and direction for sustainable forest management. Objectives set the goals of achieving this vision. Individual objectives are organized into Performance Measures, which are means of judging whether an objective has been fulfilled. Performance Measures are made up of Indicators. These Indicators are used to assist in the assessment and demonstration of conformance to each Objective and Performance Measure. Indicators are both systems-based and performance-based.

4.2.2 SFI Principles for Sustainable Forestry

In keeping with the responsibility of stewardship and the commitment to society, SFI program participants support the following 6 principles:

- **Sustainable forestry** - to practice sustainable forestry to meet the needs of the present without compromising the ability of future generations to do the same.
- **Responsible practices** - to use, and promote among other forest landowners, sustainable forestry practices that are economically, environmentally and socially responsible.
- **Forest health and productivity** - to protect forests from wildfire, pests, diseases and other damaging agents to maintain and improve long-term forest health and productivity.
- **Protecting special sites** - to manage forests and lands of special significance in a manner that takes into account their unique qualities.
- **Legal compliance** - to comply with applicable federal, state or local forestry and related environmental laws and regulations.
- **Continual improvement** - to continually improve the practice of forest management and also to monitor, measure, and report performance in achieving the commitment to sustainable forestry.

4.2.3 SFI Objectives

SFI objectives translate the SFI principles into action. Here is a brief overview of the SFI guiding objectives:

- **Broaden the implementation of sustainable forestry** by employing an array of economically, environmentally, and socially sound practices in the conservation of forests including appropriate protection, growth, harvest and use of the forests using the best scientific information available.
- **Ensure long-term forest productivity and conservation of forest resources** through prompt reforestation, soil conservation and other measures.
- **Protect the water quality** in streams, lakes and other water bodies.
- **Manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity** by developing and implementing stand and landscape level measures to promote habitat diversity and the conservation of forest plants and animals.
- **Manage the visual impact** of harvesting and other forest operations.
- Recognize and **protect the special value of sites of ecological, geologic, cultural, or historic significance.**
- Promote the **efficient use of forest resources.**
- **Broaden the practice of sustainable forestry** by cooperating with forest landowners, wood producers, consulting foresters and program participants' employees who have responsibility in wood procurement and landowner assistance programs.
- **Publicly report program participants' progress** in fulfilling their commitment to sustainable forestry.
- **Provide opportunities for the public and the forestry community to participate** in the commitment to sustainable forestry.

- **Promote continual improvement** in the practice of sustainable forestry and monitor, measure and report performance in achieving the commitment to sustainable forestry.

4.3 QMI

QMI is a Division of CSA International and is North America's leading management systems registrar. Established in 1984, QMI has worked with thousands of organizations in North America and around the world, issuing certifications to those that meet the requirements of the international and national management systems such as ISO 14001, ISO 9000, the Sustainable Forestry Initiative (SFI) Program and Canadian Standards Association Sustainable Forest Management System (CAN/CSA Z809).

QMI also participates in several standards development technical committees. This includes the committees responsible for ISO 9000, ISO 14001, CAN/CSA Z809 and Canada's national standard for sustainable forest management. In addition to this, QMI chairs the SFI Auditors Forum, whose mandate is to put forth recommendations to AF&PA's Sustainable Forestry Board.

Link to QMI website: <http://www.qmi.com/default.asp?language=english>

4.4 ANSI/RAB National Accreditation Program

The ANSI/RAB NAP (National Accreditation Program) is an expansion of the accreditation program that the American National Standards Institute (ANSI) and the Registrar Accreditation Board (RAB) have jointly operated in relation to the ISO 9000 Quality Management Systems (QMS) standards. The NAP now offers registrars "one stop shopping" for accreditation for both EMS and QMS. This program also provides accreditation of environmental auditor training course providers.

The NAP is administered by a Joint Oversight Board which will oversee the EMS Council and the QMS Council begun by ANSI and RAB respectively. The Board has equal representation from ANSI and RAB appointees. The EMS and QMS Councils operate as separate entities.

The QMS and EMS Councils are populated by volunteers, which help create and maintain a robust and credible accreditation and registration system for the U.S. industry. Council members represent industry and other business, government, environmental groups, quality organizations, and registrars. These council members have developed all ANSI-RAB NAP programs through a consensus process. Among other responsibilities, the councils review ANSI-RAB NAP audit team reports and vote to grant or deny accreditation to registrars.

Today, the NAP is working with international organizations such as ISO to develop a system that will allow registrars to obtain accreditations that are

accepted worldwide. ANSI promotes the NAP nationally and internationally and provides due process and public review of all program criteria and procedures. ANSI is also responsible for public notice of applicants for accreditation, and in consultation with RAB, represents the NAP in international accreditation activities.

Link: http://www.rabnet.com/ab_nap.shtml

4.4.1 RAB Responsibilities in the ANSI-RAB NAP

RAB is responsible for the direct operation of the accreditation programs, including the following activities:

- Accreditation of organizations to register to the ISO 14001 standard;
- Accreditation of ISO 14001 auditor training course providers;
- Acceptance and processing of applications for accreditation;
- Formation of audit teams to conduct accreditation audits of candidate registrars and course providers; and

The EMS Council will review RAB audit team reports and vote to grant or deny accreditation to registrars and course providers.

4.4.2 ANSI Responsibilities in the ANSI-RAB NAP

- Promote the ANSI-RAB NAP;
- Provide due process and public review of criteria and procedures;
- Offer public notice of applicants for accreditation; and
- Represent the ANSI-RAB NAP internationally, in consultation with RAB.