



**FSC Certification Report for the
2009 Annual Audit of:
Saint John's Abbey, Order of Saint Benedict
Certificate Number: SCS-FM/COC-00100**

**Under the
SCS Forest Conservation Program
(An FSC-Accredited Certification Program)**

**Date of Field Audit: June 3, 2009
Date of Report: June 16, 2009**

**Scientific Certification Systems
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Section 2.0 (Surveillance Decision and Public Record) will be made publicly available on the SCS website (www.scscertified.com) no later than 60 days after the report is finalized.

1.0 GENERAL INFORMATION

1.1 CONTACT INFORMATION

Saint John's Abbey and University

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Collegeville, MN 56321-3000

Contact: Thomas Kroll, Forester

Web Page: http://www.csbsju.edu/arboretum/land_steward/forestcertification.htm

1.2 General Background

This report covers the first on-site annual audit of Saint John's Abbey (SJA) pursuant to the FSC guidelines for annual audits as well as the terms of the forest management certificate awarded by Scientific Certification Systems in July 2007 (SCS-FM/COC-00100). All certificates issued by SCS under the aegis of the Forest Stewardship Council (FSC) require annual audits to ascertain ongoing compliance with the requirements and standards of certification. A public summary of the initial evaluation is available on the SCS website www.scscertified.com.

Pursuant to FSC and SCS guidelines, annual/surveillance audits are not intended to comprehensively examine the full scope of the certified forest operations, as the cost of a full-scope audit would be prohibitive and it is not mandated by FSC audit protocols. Rather, annual audits are comprised of three main components:

- A focused assessment of the status of any outstanding conditions or corrective action requests
- Follow-up inquiry into any issues that may have arisen since the award of certification or prior audit
- As necessary given the breadth of coverage associated with the first two components, an additional focus on selected topics or issues, the selection of which is not known to the certificate holder prior to the audit.

At the time of the June 2009 annual audit, there were no open Corrective Action Requests (CARs).

1.3 Guidelines/Standards Employed

For this annual audit, the SCS auditor evaluated the extent of SJA's conformance with the FSC Lake States-Central Hardwoods Region (USA) Regional Forest Stewardship Standard Version 3.0 as approved on February 10, 2005. Accordingly, the June 2009 annual audit was conducted against this standard.

2.0 SURVEILLANCE DECISION AND PUBLIC RECORD

2.1 Assessment Dates

The annual audit occurred on June 3, 2009. Approximately 1.5 person days were spent on the surveillance evaluation, including time spent on auditing documents and records, interviewing stakeholders, and carrying out field work.

2.2 Assessment Personnel

Kyle Meister, M.F. – Lead auditor and Certification Forester with Scientific Certification Systems. Recent audits include the Mendocino Redwood Company’s Resource Manager Program, Michigan DNR, Trout Mountain Forestry, Collins-Lakeview, Humboldt Redwood Company, Los Olivos y Otros, Fort Lewis, and the Minnesota Wood Education Project. He holds a B.S. in Natural Resource Ecology and Management and a B.A. in Spanish from the University of Michigan. He recently completed a Master of Forestry degree at the Yale School of Forestry and Environmental Studies. He has experience as an environmental educator and natural resource consultant in the U.S., Mexico, Ecuador, Costa Rica, and Colombia.

2.3 Assessment Process

The auditor reviewed documents, interviewed SJA personnel and third-party stakeholders, and visited several field locations with the SJA forester in order to assess SJA’s conformance with the FSC Principles and Criteria.

The sites visited within SJA’s single FMU include:

Individual Tree Selection System site – Maple, Basswood, Ash, Red elm, declining oaks

- Site close to road – managed for aesthetics
- Several old oaks dying, some gaps created that are large enough for oak and shade tolerant hardwoods to regenerate.

White Pine – Red Pine and mixed hardwood thinning

- Thin to favor healthy pines, hardwoods removed incidentally for safety and firewood
- SJA uses handfelling and owns a John Deere 648D Turbo Skidder equipped with a grapple.
- Skidder has been stored on landing site since April and was leaking (See CAR 2009.1).

Sugarbush

- <30 acres in size
- Two sites, alternate between sites each year
- Monks, SJU students, arboretum staff, and professors participate in management
- Grade school students and other community members

Oak thinning

- Was site of 75 year old clearcut that grew back

Oak Shelterwood – mesic site

- Testing understory management strategies
 - Prescribed brush burning
 - Ironwood and *Rubus* spp. competition
 - Tubed seedlings
 - Fencing
 - SJA is considering more fencing and using rotochopping Ironwood
 - Selection of cut trees based on basal area target and seed trees

2.4 Status of open Corrective Action Requests and Recommendations

SJA had no open CARs at the time of the 2009 annual audit. There were 6 open recommendations from the 2007 recertification audit. SCS and SJA spent much of the office time reviewing SJA’s response to these recommendations.

Background/Justification: SJA has been participating in FSC certification since 2001 and has demonstrated a commitment to the FSC’s Principles and Criteria. SJA has a unique opportunity to communicate the benefits of FSC certification through their extensive use of timber and non-timber forest products derived from their forest (e.g., furniture, construction, maple syrup, pottery). To further communicate the impacts and benefits and to secure this commitment, SJA could enhance the use of signs, posters, brochures, inclusion in the annual report or other methods of communicating about FSC to campus visitors, students, alumni, and others.	
REC 2007.1	<i>To explore additional opportunities to enhance awareness, understanding and support of the FSC commitment at the Abbey and among stakeholders and interested parties. SJA could consider alternative forms of communication on campus, use of marketing materials, and gain clarification on permissible activities pertaining to the chain of custody process.</i>
Reference	<i>FSC Criterion 1.6</i>
SJU Response: SJA has an annual report on the Arboretum with information on its FSC certification, as well as a section on its website devoted to its certification. The SJA Forest manager is a guest lecturer at SJU and mentions the FSC certification process during his talks. In field days at the sugarbush, SJA discusses FSC certification. SJA’s educational programs reach nearly 10,000 people per year, most of whom receive some piece of information on SJA’s certification.	
Disposition of REC: SJA includes much information on its FSC certification in its educational outreach activities, which can be considered an effective marketing tool. This REC can be closed.	

Background/Justification: SJA has open communications with the adjacent landowners and community stakeholders, and no disputes currently exist. There exists no documentation of the informal dispute resolution process to prevent complications and provide guidance.

REC 2007.2	<i>Adopt an informal dispute resolution process that could be documented in the management plan or related materials and be used in the event of community/neighbor disputes and in advance of more formal legal mechanisms of resolving disputes.</i>
Reference	<i>FSC Criterion 2.3</i>
SJU Response: SJA has not prepared any formal response to this recommendation. The property is well surveyed and boundaries are marked. Zoning could be an issue in the future, for which a legal process already exists in the county. SJA/SJU has been buying conservation easements on some of the surrounding properties in an effort to conserve the rural nature of the area. There is also an existing formal dispute process through the SJU council, which handles many landuse issues on the campus. SJA holds many neighborhood dinners for outreach, sometimes during which current land management issues, such as allowing hunting, are discussed. Disputes are all different by nature and a case by case basis works better for SJA. For example, with the deer hunting issues, SJA consults with MN DNR scientists, who monitor local deer populations and provide advice on herd management based on science.	
Disposition of REC: This REC can be closed.	

Background/Justification: The 140 year history of land use by Saint John’s Abbey is an important part of the history of the forest. The forest manager has made efforts to gather the written records of this history and document it in the management plan. Additional benefit could be gained by mapping the known historic and/or cultural sites in the forest, tracking harvest operations relative to such sites, protecting sites of special concerns, and/or incorporation into existing educational programs.	
REC 2007.3	<i>Map known historic or cultural sites in the forest such as old roads, former building locations, or other special sites. This data could be included in the GIS and protected as sensitive information, as necessary.</i>
Reference	<i>FSC Criterion 3.3a</i>
SJU Response: SJA has found evidence of old roads, has GPS’d some of them and maintains them as trails. One old shack and an arch have been documented, but not GPS’d and included in a GIS layer. There are many historical records at SJU and in Collegeville on geography, neighbors, Indians, plants, buildings, and other attributes.	
Disposition of REC: This REC remains OPEN.	

Background/Justification: SJA has demonstrated a commitment to supporting the local community through its contracting and hiring practices and the public benefits of providing recreational opportunities and the ecological services of wildlife habitat and water quality protections. However, the quantifiable economic benefit to the local community of the forest and associated products is not readily known.	
REC 2007.4	<i>Evaluate the economic impact of forest operations and associated product manufacturing to the region and community in terms of jobs created, wood products, recreational opportunities and/or other indicators. This information could be communicated to stakeholders and interested parties. The evaluation may also identify opportunities for SJA to further its engagement in the local economy.</i>
Reference	<i>FSC Indicator 4.1.d</i>
SJU Response: SJA has not taken any action on pursuing an evaluation of the forest and	

processing operations. However, the forest manager suggested that he would ask one of the economics professors for a student to work on this as a senior project.

On the other hand, SJA has been investigating woody biomass alternatives both on campus and locally.

Disposition of REC: SJA has identified an opportunity in woody biomass locally. However, a broader scale economic evaluation as identified in the REC has yet to be realized. **This REC remains OPEN.**

Background/Justification: SJA has been cutting below the annual allowable cut in recent years and is working to regenerate oak stands to address the age class imbalance and to retain the oak cover type on the property. Since 1991, shelterwood cuts have been the silviculture system that has been used. SJA has also implemented a deer hunting season. The shelterwood cuts have resulted in high numbers of oak seedlings, but it has been challenging to retain the oak and to have it reach sufficient height. Research indicates that it may take 30 years for a shelterwood treatment to result in the establishment of the new stand, thus actions taken today are considered critical and must be clearly documented to identify relevant alternative or additional actions. To increase the opportunities for successful oak regeneration, SJA could consider additional understory treatments, establishing research or monitoring studies, and/or additional deer control methods.

REC 2007.5	<i>Explore the use of shearing (or brush cutting) of the understory to promote vigorous resprouting of oak regeneration. Consider increased use of understory planting of oak, and deer exclosures using economical means (e.g., plastic fencing) as a way to reduce mortality. A strategic plan could be developed to prioritize sites and their treatments, and to identify opportunities to replicate treatments and set targets for results.</i>
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SJU Response: SJA has been exploring many alternatives for controlling competing understory vegetation and promoting oak regeneration, including controlled understory brush fires, deer exclosures, seedling tubes, planting a few large (4' tall) oak seedlings rather than several small seedlings from SJA seed stock. SJA has planned to work with The Nature Conservancy on renting a rotochopper to do some understory vegetation treatments. At this point, SJA just needs to schedule a time and an operator.

Disposition of REC: **This REC can be closed. However, see REC 2009.3.**

REC 2007.6	<i>SJA may also consider documenting more clearly in management plans thresholds of acceptable regeneration along with contingency plans for lack of progress in meeting goals.</i>
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Reference	<i>FSC Criterion 5.6a</i>
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SJU Response: In the deer exclosures, especially those that have received a prescribed underbrush fire, the oak regeneration is doing well. The latest deer survey shows that the population is down to 11-14 per square mile, which is optimal for oak regeneration. Controlling deer and protecting individual seedlings with tubes (at \$3/tube) has been the contingency plan so far. SJA has started planting taller oak stock at lower densities (50 trees per acre). SJA collects its own acorns, has them raised in a nursery, and then plants them. However, deer control is the main part of the solution in promoting oak regeneration. Rather than create a contingency plan at this point, SJA prefers to do all within its power to promote oak regeneration when the causes of oak regeneration problems are well known.

Disposition of REC: **This REC can be closed.**

2.5 General Observations

Saint John University, Saint Benet College and Saint John’s Abbey have a unique history of managing the land. Since the Abbey’s founding in 1856, the Benedictine monks have tended to its forests, fields, and pastures producing wood and food for their own use and for sharing with the local community. Indeed, most monks assigned to SJA stay for life and learn the value of taking care of land. SJU and SJA use much of the wood from the forests in the campus’ structures and furniture. SJU/SJA also uses firewood from the forests in its pottery kiln. As an educational institution, SJU/SJA has provided many opportunities for university students and the local community in woodland management and wood utilization, in addition to serving as a source for spiritual guidance and healing. SJU/SJA is a place where the phrase “teach a man to fish, feed him for a lifetime” is put into practice daily.

The staff and monks of SJU/SJA are constantly learning and teaching in the community. Perhaps one of the reasons for this constant exchange of learning and teaching in the area around Collegeville begins within the halls of SJU and the grounds of the Abbey. The forest manager, Abbot, and chair of the Environmental Studies department work in a cooperative manner to examine various strategies and opportunities in forest management, wood utilization, and forestry and environmental education while considering the mission and history of SJU/SJA.

2.6 New Corrective Action Requests and Recommendations

Background/Justification: SJA’s skidder was left outside in an upland area of the landing for at least two months post-harvest. The auditor observed evidence of fluid leakage underneath it.	
CAR 2009.1	SJA shall develop an appropriate timeframe for returning logging equipment to storage areas as well as follow best management practices for preventing and cleaning up spills during times when logging equipment must be left outside for longer periods.
Deadline	Annual audit 2010
Reference	FSC indicators 6.7.a and 6.7.c.

Recommendations:

Background/Justification: SJA has begun research into woody biomass utilization both on campus and locally. It is considering planting hybrid poplar species on marginal agricultural lands and using some of its own forest for supply. There are other factors in addition to species selection and biomass utilization technology that SJA could research.	
REC 2009.1	SJA should consider researching species that are currently under utilized in its forests and new woody biomass harvesting technology that may make use of these species more economical. SJA should stay up-to-date on retention guidelines for biomass production forests developed by the MNDNR and review FSC principal 10 before beginning any experimental plantings of hybrid poplars.
Reference	FSC Indicator 5.2.c., Criterion 5.3, and Principle 10

Background/Justification: SJA essentially has divided its sugarbush into two management areas. SJA alternates between the two areas each year, allowing one site to fallow, while tapping trees in the other. This good practice is not described in the management plan.	
REC 2009.2	SJA should describe this practice and its rationale in the Management Plan.
Reference	FSC Indicators 5.2.d. and 7.1.d.1.

Background/Justification: SJA has researched and started experimental and control plots for understory treatments to promote oak regeneration in oak shelterwood systems as recommended in REC 2007.5. Much of the guidance on oak shelterwood systems, although edited and adapted for Minnesota, was taken from geographical areas of high oak productivity, such as Pennsylvania and Arkansas. Due to its lower precipitation, shorter growing season and different mix of species, not all techniques from these more productive areas may be appropriate for Minnesota.	
REC 2009.3	In addition to the understory treatments that SJA is currently researching, SJA should consider other important factors in shelterwood systems, such as crop tree spacing, the amount of cuts (i.e., 1, 2 or 3 cut shelterwood systems) and irregular shelterwoods. Information on oak shelterwood systems of New England (e.g., Kittredge, D.B.), particularly on marginal sites, and other areas of eastern North America with species mixtures similar to Minnesota might be helpful.
Reference	FSC Indicators 6.3.a.1, 6.3.a.2, and 7.1.c.1

Background/Justification: A non-native invasive wood boring beetle, the Emerald Ash Borer (EAB; <i>Agrilus planipennis</i>), was recently discovered in Minnesota. EAB feeds exclusively on species of Ash in North America. EAB spreads to wooded areas mainly through the movement of ash firewood from infested areas, however, individual adults can fly as far as 5 miles away from where they emerged.	
REC 2009.4	SJA should research BMPs for keeping EAB out of its forests, including cooperating with grounds staff on any ashes planted as street trees. SJA should also research silvicultural and biological control strategies for maintaining and protecting healthy populations of ash species.
Reference	FSC indicator 6.8.a.

Background/Justification: The area between the SJU campus and the Arboretum can be considered a type of wildland urban interface. There are some exotic tree and shrub species planted on the campus that have the potential to become invasive and threaten the Arboretum’s management. For example, Norway maple (<i>Acer platanoides</i>) uses an allelopathic chemical to deter sugar maple growth and regeneration.	
REC 2009.5	SJA forestry staff should consider working closely with SJU grounds to evaluate species used in landscaping for invasive qualities and develop a list of landscaping plants to be used that are least likely to become invasive in the forest.
Reference	FSC Criterion 6.9

2.7 General Conclusions of the Annual Audit

Based upon information gathered through site visits, interviews, and document reviews, the SCS audit team concludes that SLA’s management of its forestland in Collegeville, Minnesota continues to be in strong overall compliance with the FSC Principles and Criteria as detailed in the Lake States-Central Hardwoods Region Regional Forest Stewardship Standard. While there remains an aspect of the management program that is deficient relative to the standard of certification, the SCS audit team has concluded from this annual audit that SLA’s forest management program is in general conformance with FSC Principles 1 through 9 (Principle 10 is not applicable as SLA’s operations are classified as “natural forest management” under the FSC

definitions). As such, continuation of the certification is warranted, subject to ongoing progress in closing the one new CAR and subject to subsequent annual audits.

3.0 DETAILED OBSERVATIONS

This section is divided into two parts: Section 3.1 details the determining of conformance and non-conformance with the elements of the standard examined during this audit. Section 3.2 discusses any stakeholder comments.

3.1 Evaluation of Conformance

The auditor chose to focus on Principles 1 and 5 during this annual audit:

C= Conformance with Criterion

C/NC= Overall Conformance with Criterion, but there are Indicator non-conformances

NC= Non-Conformance with Criterion

REQUIREMENT	C/NC	COMMENT/CAR
P1 Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.		
C1.1 Forest management shall respect all national and local laws and administrative requirements.	C	Minnesota only has voluntary forest management guidelines, which essentially become mandatory for certified operations. Minnesota requires no permits for timber harvests.
C1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.	C	SJA is a non-profit organization and does not have to pay taxes.
C1.3. In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.	C	SJA contacted the Minnesota Historical Society, which maintain contact with the tribes to keep archaeological and cultural sites confidential, and has records of landuse by Indians. There are no known disputes over the land.
C1.4. Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and by the involved or affected parties.	C	There is no conflict between Minnesota law the FSC P&C.
C1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.	C	There was evidence of unauthorized activity on SJA lands. SJA has a strong presence on its land.
C1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.	C	This is stated in SJA's management plan and on its website.
P2 Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.		
P3 The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.		
P4 Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.		
P5 Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.		
C5.1. Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to	C	SJA has been managing its forests since 1856 and has had a management plan since the 1940s. Long-term forest management that favor multiple values, including high grade timber and ecological services, is one of the main objectives.

maintain the ecological productivity of the forest.		
C5.2. Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.	C	<p>Since much of the wood is used within the university and abbey, much of the benefits are local. All wood is processed within 50 miles of campus. Some of the wood is even processed at SJU. Wood is used for firewood, panels, furniture, pulp, and pallets.</p> <p>REC 2009.1: SJA should consider researching species that are currently under utilized in its forests and new woody biomass harvesting technology that may make use of these species more economical. SJA should stay up to date on retention guidelines for biomass production forests developed by the MNDNR and review FSC principal 10 before beginning any experimental plantings of hybrid poplars.</p> <p>REC 2009.2: SJA should describe the practice of sugarbush fallow and its rationale in the Management Plan.</p>
C5.3. Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.	C	<p>Utilization is very good at SJA. There are snags and DWD of many sizes. Bumper trees were used and there was very little, if any, residual stand damage to the harvest sites observed.</p> <p>REC 2009.1: SJA should consider researching species that are currently under utilized in its forests and new woody biomass harvesting technology that may make use of these species more economical. SJA should stay up to date on retention guidelines for biomass production forests developed by the MNDNR and review FSC principal 10 before beginning any experimental plantings of hybrid poplars.</p>
C5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.	C	SJA is currently researching possibilities for woody biomass utilization on campus and its vicinity.
C5.5. Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.	C	SJA manages for aesthetics and protection near scenic lake trails and overlooks. It establishes and respects vernal pool and wetland buffers.
C5.6. The rate of harvest of forest products shall not exceed levels that can be permanently sustained.	C	<p>SJA cuts well below the annual allowable cut established for each stand. It updates its allowable harvest level every 5-10 years or as new information on growth rates becomes available.</p> <p>The rate of mature tree mortality in the sugarbush is low. SJA uses single tree selection in the sugarbush to allow for understory trees to come in. Unlike in stands managed for timber, SJA can tap poorly formed and poor quality trees to produce maple syrup.</p>
P6 Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.		
C6.1. Assessments of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.		
C 6.2. Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping, and collecting shall be		

controlled.		
C6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.		
C6.3.a. Forest regeneration and succession	C	REC 2009.3: In addition to the understory treatments that SJA is currently researching, SJA should consider other important factors in shelterwood systems, such as crop tree spacing, the amount of cuts (i.e., 1, 2 or 3 cut shelterwood systems) and irregular shelterwoods. Information on oak shelterwood systems of New England (e.g., Kittredge, D.B.), particularly on marginal sites, and other areas of eastern North America with species mixtures similar to Minnesota might be helpful.
C6.3.b. Genetic, species, and ecosystem diversity		
C6.3.c. Natural cycles that affect the productivity of the forest ecosystem		
C6.4. Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.		
C6.5. Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.		
C6.6. Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.		
C6.7. Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.	C/NC	CAR 2009.1: SJA shall develop an appropriate timeframe for returning logging equipment to storage areas as well as follow best management practices for preventing and cleaning up spills during times when logging equipment must be left outside for longer periods.
C6.8. Use of biological control agents shall be documented, minimized, monitored, and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.	C	REC 2009.4: SJA should research BMPs for keeping EAB out of its forests, including cooperating with grounds staff on any ashes planted as street trees. SJA should also research silvicultural and biological control strategies for maintaining and protecting healthy populations of ash species.
C6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.	C	REC 2009.5: SJA forestry staff should consider working closely with SJU grounds to evaluate species used in landscaping for invasive qualities and develop a list of landscaping plants to be used that are least likely to become invasive in the forest.
C6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion: a) Entails a very limited portion of the forest management unit; and b) Does not occur on High Conservation Value Forest areas; and c) Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.		

P7 A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.		
C7.1. The management plan and supporting documents shall provide: a) Management objectives. b) description of the 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 in question and information gathered through resource inventories. d) Rationale for rate of annual harvest and species selection. e) Provisions for monitoring of forest growth and dynamics. f) Environmental safeguards based on environmental assessments. g) Plans for the identification and protection of rare, threatened and endangered species. h) Maps describing the forest resource base including protected areas, planned management activities and land ownership. i) Description and justification of harvesting techniques and equipment to be used.		
7.1.a. Management objectives		
7.1.b. Description of forest resources to be managed, environmental limitations, land use and ownership status, socioeconomic conditions, and profile of adjacent lands		
7.1.c. Description of silvicultural and/or other management system	C	REC 2009.3: In addition to the understory treatments that SJA is currently researching, SJA should consider other important factors in shelterwood systems, such as crop tree spacing, the amount of cuts (i.e., 1, 2 or 3 cut shelterwood systems) and irregular shelterwoods. Information on oak shelterwood systems of New England (e.g., Kittredge, D.B.), particularly on marginal sites, and other areas of eastern North America with species mixtures similar to Minnesota might be helpful.
7.1.d. Rationale for the rate of annual harvest and species selection	C	REC 2009.2: SJA should describe the practice of sugarbush fallow and its rationale in the Management Plan.
P8 Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.		
P9 Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.		
P10 Plantations shall be planned and managed in accordance with Principles and Criteria 1 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.		
REC 2009.1: SJA should consider researching species that are currently under utilized in its forests and new woody biomass harvesting technology that may make use of these species more economical. SJA should stay up to date on retention guidelines for biomass production forests developed by the MNDNR and review FSC principal 10 before beginning any experimental plantings of hybrid poplars.		

3.2 Stakeholder Comment

Person interviewed	Position/Organization
Dr. Derek Larson, Ph.D.	Associate professor of environmental studies; Environmental studies department chair, Saint John's University

Dr. Larson and other professors use the Arboretum for a variety of courses, including those related to ecology and active land management. He commented that he and the forest manager, Tom Kroll, collaborate on teaching courses and developing opportunities for students to engage in studies and management of the Arboretum. The students, in turn, often become naturalist educators, ecologists or foresters and direct community education programs while at SJU. Both men have been involved in researching woody biomass utilization and other alternative energy sources on campus. Dr. Larson has always been proud of SJA/SJU's FSC Certification.

SJA has not received any stakeholder complaints or disputes since the previous evaluation, and stakeholder consultation by the audit team has not revealed any further stakeholder complaints or disputes.

3.3 Controversial Issues

No exceptionally controversial or difficult issues presented themselves during this surveillance audit.

3.4 Changes in Certificate Scope

There were no changes in the scope of this certificate during the previous year.