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Organization Information

Lead Organization Name and Address	National Audubon Society, Inc. 225 Varick St, 7th Fl. New York, NY 10014
Name, phone and email for Project Director	Jim Shallow jshallow@audubon.org 802-434-3068
Lead Organizational Mission Statement (25 words or less)	To conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity.
Lead Organization Annual Operating Budget	$84,500,000 (FY13)
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1. Eric Hansen Ferucci & Walicki, LLC Forest Management Consultants eric@fwforesters.com 860-349-7007 2. Roger Monthey Forest Stewardship Program Representative U.S. Forest Service rmonthey@fs.fed.us 603-868-7699

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
1. Empire State Forest Products Association (ESFPA) 2. Lyme Timber 3. Hancock Forest Management 4. New York State Department of	Translating Bird Science into Forest Management Language	$60,000	$130,340	Working with partners, seven Audubon state programs will collaborate to make bird science materials more accessible for forest managers and will create, pilot and	**Objective 4.** Conservation of Biological Diversity including Forests with Exceptional Conservation Value

1

Environmental Conservation (NYSDEC) 5. U.S. Fish and Wildlife Service (USFWS)				refine outreach workshops using recommendations from key forestry industry partners throughout the Atlantic Flyway of the Eastern US.	

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Empire State Forest Products Association (ESFPA)	Eric Carlson, President and CEO	ecarlson@esfpa.org 518-463-1297 The New York Forestry Resource Center 47 Van Alstyne Drive Rensselaer, NY 12144	A nonprofit organization for businesses and individuals dedicated to improving the business climate for the forest products industry while promoting management of New York's forests to meet the resource needs of today and for future generations.
Lyme Timber	Sean Ross, Director of Forestry Operations	603-643-3300 sross@lymetimber.com 3 Main St, 3rd Floor Hanover, NH 03755	A private TIMO that focuses on the acquisition and sustainable management of lands with unique conservation values. The Company's current portfolio includes 475,000 acres of forestland located in New York, Wisconsin, Pennsylvania, Maine, Massachusetts, Tennessee, Virginia, Delaware, and Louisiana.
Hancock Forest Management	John Levavasseur, Allegheny Area Manager	jlevavasseur@hnrg.com 814-887-9135 Hancock Forest Management 202 East Main St. Smethport, PA 16749	A TIMO with 116,000 acres under management in PA (SFI and FSC Certified).
NYS DEC	Robert K. Davies, Director of Division of Lands and Forests, New York's State	rkdavies@gw.dec.state.ny.us 518-402-9405 NY State Department	NYSDEC is responsible for the conservation, improvement, and protection of natural resources within the State of New York.

	Forester	of Environmental Conservation 625 Broadway Albany, NY 12233	
U.S. Fish and Wildlife Service (USFWS): Raleigh Ecological Services Field Office	John Ann Shearer, Fish and Wildlife Biologist	John_Ann_Shearer@fws.gov 919-856-4520 (x17) U.S. F&W Service 551-F Pylon Drive P.O. Box 33726 Raleigh, NC 27636	Works to protect endangered and threatened species, migratory birds and migratory fish and their habitat in North Carolina.

Project Details

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*

Audubon's Atlantic Flyway Eastern Forest program focuses on protection and proper management of crucial breeding, migratory, and winter bird habitat by training landowners, foresters, NGOs, state agencies, and other partners in bird-focused, environmentally sustainable land-management practices. Sustainable forestry practices can help create or improve habitat required by birds of conservation concern. Literature points to the availability of properly managed, unfragmented breeding habitat as a key limiting factor for most bird populations and is responsible, ultimately, for species decline. We have identified and mapped high-priority forest tracts along the entire United State's portion of the Atlantic Flyway and are focusing our conservation efforts in those areas, including promoting bird-focused forest management among land owners and managers.

Since Audubon's alignment along the Flyways (See: A Roadmap for Hemispheric Conservation 2012-2015), we have developed and tested a forest-stewardship model for landowners in New York and Vermont. Using birds as a guide to sustainable forestry, our model program has synthesized avian research; developed materials for landowners and foresters that point to desired future conditions, and has developed options for implementing silviculture with birds in mind. We are now positioned to scale up and disseminate our forest stewardship model throughout the Flyway.

To build on our numerous accomplishments and sustain momentum, the National Audubon Society, represented by six Audubon state programs in the Eastern US, seeks a three-year, $60,000 grant from the Sustainable Forestry Initiative to implement *Translating Bird Science into Forest Management Language*, which will be a critical component of our Eastern Forests program. The grant would enable Audubon to:

- Synthesize scientific literature to print and publish tailored region-specific outreach materials aimed at foresters for the major forest types in the Atlantic Flyway;
- Pilot bird-focused workshops modeled by New York and Vermont for forest managers throughout the Atlantic Flyway;
- Incorporate input and feedback from industry experts like Sustainable Forestry Initiative program participants, Empire State Forest Products Association, and others, in the production of materials, as well as the expertise of Audubon scientists in Maryland, New

York, North Carolina, Pennsylvania, and South Carolina;

- Allow Audubon Vermont to lead work with partners to pilot the products of this project, identifying how the information might apply to their lands, doing so with involvement of other Audubon staff as a learning and training experience;
- Provide presentations at professional forest industry meetings.

This project directly addresses the SFI Objective: *Conservation of Biological Diversity including Forests with Exceptional Conservation Value* (Objective 4), including performance measures 4.1 and 4.2.

- Addressing 4.1.4

  At the heart of this project is the exploration of how silviculture can be practiced to address landscape conditions with the suite of forest-breeding birds in mind. Literature shows that complex vertical structure in the forest is important to promoting avian diversity, and Audubon has long focused conservation efforts on large, unfragmented blocks of forests with a heterogenous mix of age-classes.

  Focusing on the different major forest-types found in the forests of the Atlantic Flyway, we will partner with the forestry community to identify the desired future stand conditions needed for successful forest bird breeding habitat and identify appropriate silvicultural methods to achieve this outcome.

- Addressing 4.1.5

  The basis of this project's literature has been successfully tested by Audubon Vermont's *Foresters for the Birds* program. In close partnership with the Vermont Dept. of Forests, Parks and Recreation, and dozens of consulting foresters, Audubon Vermont developed a Forest Bird Toolkit to accompany *Foresters for Birds* which includes management options for each key bird species, along with a guide to bird habitat assessments and silvicultural options. This project was recently awarded the 2013 Wings Across the Americas Conservation Award.

  In this project, Audubon and partners will conduct a literature review to develop a similar toolkit for other forest types throughout the Atlantic Flyway, so that these materials can assist landowners and foresters in assessing their forests at the stand- and landscape-level to promote bird diversity and incorporate this important information into their management plans.

- Addressing 4.2.2

  This project also provides a means of applying research, as synthesized by Audubon, in forest management. Our proposed work will involve us collaborating directly with large Timber Investment Management Organizations in the southern states to pilot the application of our developed materials.

Activities and Partnerships State-by-State

The following is a breakdown of the activities and partnerships Audubon will peruse on a state level:

Audubon Maryland-DC will assist with the literature review and drafting of management guidelines for regions that include Maryland. With the help of their partner, the **Maryland Forest Service**, guidelines will be tailored to Maryland, including discussion of Forest-Interior

Dwelling Species (FIDS), and then distributed through forest stewardship plans and other appropriate avenues. Audubon Maryland-DC will present and promote the management guidelines in at least one presentation per year (three total) at an appropriate statewide meeting of forestry practitioners.

Audubon New York's partners on this project will be **New York State Department of Environmental Conservation** (all of whose state forests are SFI certified) the **Empire State Forest Products Association**, and **Lyme Timber**. Partners will attend meetings, review drafts of materials, participate in pilot workshops, and work with Audubon staff to examine their lands and their land management to look for opportunities to integrate the bird-focused forestry information. The NYSDEC partnership provides an excellent opportunity to make state forests more bird-focused.

In 2011, SFI funded an Audubon New York project that focused on educating forest landowners about habitat needs of priority birds and promoting bird-focused forest management. The education materials were conceptual in nature, emphasizing the importance of structure and the need to have some young forest integrated into the landscape. In this project, Audubon will be building on this idea by providing more technical, quantitative information to foresters in their own terms. We will be seeking to train the very foresters we advise landowners to work with (in New York and other states), giving them the information they need to apply in it the field.

Audubon North Carolina will be partnering with the **USFWS's North Carolina Office** to host forestry workshops in North Carolina to inform landowners and managers about bird-friendly forest management especially focused on maintaining habitat for Golden-wing Warblers.

Audubon Pennsylvania will develop materials for two forest types in Pennsylvania, Oak/Hickory and Northern Hardwoods. They will consult with partners **Hancock Forest Management Group** and the **Foundation for Sustainable Forests**, and other forestry professionals during the development process to ensure that materials provide information and recommendations in a form that is readily understood by Pennsylvania foresters and landowners. Audubon Pennsylvania will hold at least one workshop or presentation per year (three total) to train professional foresters on in using the materials we develop.

Audubon South Carolina will continue to refine its Bird-Friendly Bottomland Hardwood Management recommendations and the material with which to promote them, with input from foresters and wildlife biologists, in addition to **American Forest Management**. Audubon South Carolina will also host at least two gatherings of foresters and bottomland hardwood forest owners to describe their recommendations, receive input on how to make them better or more useful, and offer limited assistance in evaluating stands and forests for potential implementation. They will be hosting a field trip in October 2013 to showcase work for a tour of silviculture professionals en route to the 2013 Society of American Foresters Annual Meeting, being held in Charleston, SC. A field trip from that meeting is also coming to Francis Beidler Forest, one of their sanctuaries.

Audubon Vermont will partner with the **Vermont Department of Forests and Parks** to offer additional forester trainings in Vermont and establish demonstration harvests on up to eight properties. The *Silviculture with Birds in Mind* publication will be used to provide Vermont landowners with assessments of current habitat conditions and options for improving conditions on their properties. Audubon Vermont will

also give presentations to regional gatherings of forest professionals. Audubon Vermont intends to present to the Vermont SFI Steering Committee, although this is not yet confirmed given the limited staffing at Vermont SFI and the short timeframe.

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*

Audubon and our project partners will promote the outcomes of *Translating Bird Science into Forest Management Language* and SFI involvement in the project in the following ways:

- Placing the SFI logo on all print materials developed. Materials will be printed on SFI Certified Paper.
- Presenting the project at two professional forest industry meetings (Society of American Foresters, SFI, or others).
- Mentioning the project and its results through social media, including various Audubon websites, and possibly Audubon Magazine.
- Issuing joint press releases with SFI and partners following every completed year of project (three total).

In the table below, please list the goals for your project. For each goal, please describe the actions you will take to achieve your goal, the corresponding tangible outcomes (e.g. implementation guidance on a component of the SFI Standard, outreach and education to landowners, acres positively affected by the Project) for each goal, how you will measure your success in achieving each goal, and the portion of the requested grant funds that would be used to achieve the goal. Add rows as-needed to address all project goals.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Make bird science materials more accessible for managers of Eastern Forests by producing new science-based guidelines for major forest types	Activity 1: Review scientific literature from network and synthesize to draft region-specific guidelines/outreach materials tailor-made for foresters Activity 2: Incorporate input and feedback from industry experts like SFI program participants, Empire State Forest Products Association, and others, in the production of materials, as well as the expertise of Audubon scientists in MD, NY, NC, PA & SC	1. Producing three different region-specific draft guideline materials 2. Meetings with partners, forest managers, and SFI program participants to get input on and revise guidelines.	Final versions of three region-specific guidelines that effectively communicate information to forest managers are produced.	$60,000	Matching Funds $15,000-USFS State and Private Forestry grant to Audubon Vermont & Forest Parks and Recreation $25,000-New York Community Trust (pending) $12,000-Private Contribution $10,000-Cove Point Natural Heritage Trust In Kind $5,000-Partner staff time $4,000-Partner staff travel Other in-kind services TBD.
Goal 2: Create, pilot	Activity 1: Pilot bird-	1. PowerPoint	Model workshop		

and refine outreach workshops for new guidelines, train Audubon staff to conduct workshops, and pilot application of the guidelines with key forestry industry partners in the Eastern US	focused workshops for feedback from forest managers Activity 2: Follow-up workshops held after incorporating new knowledge/feedback Activity 3: Work directly with forestry partners (i.e. SFI program participants) to identify how guidelines might apply to their lands, doing so with involvement of other Audubon staff as a learning/training experience. Activity 4: Presentations made to professional forestry meetings (SAF, SFI, or others)	presentation to be used at workshops for presenting new guidelines to forest managers. 2. Agenda/program for workshops. 3. Trainings held for Audubon staff throughout the flyway. 4. Assessment produced for key partner lands regarding options for applying new guidelines.	agenda, program, and PPT are produced and Audubon staff throughout the Atlantic Flyway are trained in their application. Assessment documents are produced for partner lands with their input and assistance.		

Project Timeline

The proposed project will be three years in length. The following is a breakdown by year:

Year One:

- Audubon VT works with Audubon state programs in MD, NY, NC, PA, and SC, to review literature and develop region-specific materials.
- Draft materials reviewed and critiqued by partners (TIMO foresters, SFI Committees, ESFPA, etc.) and revise accordingly
- Presentations made to professional forestry meetings (Society of American Foresters, SFI, or others)
- Training session (led by Audubon Vermont) held for Audubon field staff and partners

Year Two:

- Three pilot workshops are held throughout Atlantic Flyway for foresters for feedback

Year Three:

- Literature and materials are revised and finalized based on Year Two feedback, then printed and published
- Three follow-up workshops held throughout Atlantic Flyway for education and continued feedback
- Work done with partners to apply new literature and guidelines to their lands/management

Project Budget

Expenditure	**Amount Year 1**	**Amount Year 2**	**Amount Year 3**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	15,500	15,500	15,500	46,350	5,000
Includes staff from VT, NY, PA, MD, NC, SC					
Operating Costs					
Partner Consultation Meetings	750	1,000	750	5,000	
Meetings					
Travel	1,000	1,000	3,000	5,000	9,000
Education & Outreach & Outreach Printing	1,000	3,000	2,000	5,000	
Total	$18,250	$20,500	$21,250	$61,350	$14,000

*list sources and amounts of any matching funds or in-kind contributions for each project partner: See above.

IRS Department of the Treasury
Internal Revenue Service
P.O. Box 2508
Cincinnati OH 45201

In reply refer to: 0248364798
Dec. 30, 2008 LTR 4167C E0
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BODC: TE

NATIONAL AUDUBON SOCIETY INC
225 VARICK ST FL 7
NEW YORK NY 10014-4396075

031562

Employer Identification Number: 13-1624102
Group Exemption Number: 2376
Person to Contact: MR. BAYER
Toll Free Telephone Number: 1-877-829-5500

Dear Taxpayer:

This is in response to your Dec. 17, 2008, request for information about your tax-exempt status.

Our records indicate that you were issued a determination letter in November 1972, and that you are currently exempt under section 501(c)(3) of the Internal Revenue Code.

Based on the information supplied, we recognized the subordinates named on the list you submitted as exempt from Federal income tax under section 501(c)(3) of the Code.

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106 and 2522 of the Code.

If you have any questions, please call us at the telephone number shown in the heading of this letter.

Sincerely yours,

Michele M. Sullivan

Michele M. Sullivan, Oper. Mgr.
Accounts Management Operations I

Lead Organization Name and Address	University of Saskatchewan, Saskatoon, SK, Canada, S7N 5B3
Name, phone and email for Project Director	Gordon Stenhouse, Research Scientist, Grizzly Bear Program Leader, adjunct professor Western College of Veterinary Medicine. Phone 780 865-8388, Gordonstenhouse1@gmail.com.
Lead Organizational Mission Statement (25 words or less)	The University of Saskatchewan belongs to the people of Saskatchewan. As an academic community, our mission is to achieve excellence in the scholarly activities of teaching, discovering, preserving and applying knowledge. Research at the department of Veterinary Medicine focuses on wildlife and ecosystem health.
Lead Organization Annual Operating Budget	$453 million – University of Saskatchewan**.**
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Bob Mason, Chief Forest Officer Millar Western, 7806893030, ext 307, BMason@millarwestern.com Jim Stephenson, Woodlands Manager, Canfor, 7805387790, jim.stephenson@canfor.com

Project Overview

Confirmed Project Partners	Project Title	Amount Requested (Year 1 to 3 Total)	Total Project Budget	Brief Project Summary	What element(s) of the SFI 2010-2014 Program does/do your Project address
Foothills Research Institute Weyerhaeuser Ltd. West Fraser Ltd.	Response of threatened species to linear features and landscape change in a managed forest ecosystem in West Central Alberta	**FRI** **Total $248,540** (In kind $116,240 Matching $132,300) **Weyerhaeuser** **Total $47,500** (In kind $36,500 Matching $11,000) **West Fraser** **Total $46,500** (In kind $10,000 Matching $36,500	$461,500	This project will aid in sustainable forest management efforts in the boreal forest by providing new science based knowledge to ensure habitat supply and function can be maintained for two threatened species in Alberta. This research will be used to guide current and future forest management and restoration practices.	Standard components: 4. Conservation of biological diversity 15. Forestry research, science and technology 19. Communications and public reporting 20. Management review Project categories: Working forests Wildlife and Biodiversity

Project Partners

Confirmed Project Partners	Primary Contact Name & Title	Complete Contact Information	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Foothills Research Institute	Dr Laura Finnegan Caribou Program Lead	lfinnegan@foothillsri.ca +1-708-865-8311 PO Box 6330, Hinton, Alberta, Canada T7V 1X7	The Foothills Research Institute is a private not for profit research group based in Hinton, Alberta whose focus is on research to support and encourage sustainable forest management and the conservation of species at risk in a multiple use landscape. (see www.foothillsresearch institute.com). Dr Laura Finnegan has a BA, PgDip (Statistics) and PhD in wildlife ecology. She has been conducting research on species of concern to forestry for the past 10 years and has specifically focused her research on moose and caribou in Canada since 2008. She has a number of peer reviewed publications, has completed independent and government funded research projects and was the lead author for the Committee on the Status of Endangered Wildlife in Canada DU report for caribou in 2010.
Weyerhaeuser Ltd	Wendy Crosina Manager, Forest Stewardship for Weyerhaeuser Canadian Timberlands	Wendy.crosina@weyerhaeuser.com +1-780-438-0169 Weyerhaeuser Company Ltd. #201 2920 Calgary Trail NW, Edmonton, AB T6J 2G8	Weyerhaeuser has operated in Canada since 1965.Our business starts with the forest. All the public land we manage in Canada is certified to the Sustainable Forestry Initiative® standard. All of these forestlands operate under environmental management systems aligned with ISO 14001, an international standard. We demonstrate forest stewardship by certifying our timberlands to sustainable forestry standards and we meet the principles and objectives of the SFI Standard. We manage our forests for the sustainable production of wood and Wood Products that meet our customers needs. We manage these public forestlands through a collaborative process that involves provincial governments, local communities and First Nations. Wendy Crosina is both a Registered Professional Forester and a Professional Biologist. She has worked for Weyerhaeuser as a Wildlife Ecologist in the Timberlands Division for 14 years and has been responsible for designing and initiating a number of their Wildlife/Ecology Programs. She had provided strategic direction for multiple research projects on Species at Risk, with an emphasis on Grizzly Bear and Caribou programs. She

			developed and implemented the In Block Structure Retention program for Weyerhaeuser Alberta as a key element of sustaining biodiversity. She manages the long term song bird and raptor monitoring surveys and developed and distributed a "Guide to High Risk Species' for Weyerhaeuser Alberta operations. Wendy is responsible for a number of SFI Elements, including Elements 3.2, 15.1 and 17.1 with a particular emphasis on Elements 4.1 and 4.2.
West Fraser	Dr Rick Bonar Chief Biologist Hinton Wood Products, West Fraser Mills	Rick.bonar@westfraser.com 756 Switzer Drive, Hinton, Alberta T7V 0A2	West Fraser has a long and proud history of environmental conservation, preservation and responsibility. We have operated in Canada since 1958. All the public land we manage in Canada is certified to the Sustainable Forestry Initiative® standard and also operates under environmental management systems aligned with ISO 14001, an international standard. We demonstrate forest stewardship by certifying our timberlands to sustainable forestry standards and we meet the principles and objectives of the SFI Standard. We manage our forests for the sustainable production of wood and wood products that meet our customers needs. We manage these public forestlands through a collaborative process that involves provincial governments, local communities and First Nations. Rick Bonar is a Professional Biologist registered in B.C. and Alberta with 38 years experience, including 25 years with West Fraser. He manages all aspects of the West Fraser wildlife program, including SFI and ISO aspects, for the Hinton Wood Products FMA and he coordinates the corporate West Fraser wildlife program, including the corporate EMS and SFI programs and Species at Risk programs. In addition he is President of the Foothills Research Institute and Co-Chair of the Foothills Landscape Management Forum, a multi-partner group dedicated to Integrated Landscape Management collaboration with the Alberta government.
University of Saskatchewan	Gordon Stenhouse Adjunct Researcher	Gordonstenhouse1@gmail.com 780 865-8388 Box 6330, Hinton, Alberta, Canada T7V 1X7	Gordon Stenhouse has 33 years of wildlife management and research experience. In his adjunct position with the Uof S and the Alberta government he has gathered the support and agreement from both industry and government to move forward with new grizzly bear conservation initiatives in Alberta.

			Gordon is also the past chairman of the provincial Grizzly Bear Recovery Team. Mr. Stenhouse and his research team have carried out the most comprehensive grizzly bear research program in Alberta during the past 14 years which has lead to important new knowledge and tools to aid in land use and forest management activities. This research program received an Emerald Award from Alberta Innovation and Science in 2004 in recognition of the innovative approach to sustainable forest management.

Project Details

This project will produce data and management tools which can be used to achieve sustainable harvesting of boreal forests when species at risk occur, and also to inform science based habitat restoration. Specifically this research will:

- **Apply new technology to species at risk:** Current estimates of disturbed habitat in the boreal forest are based upon inaccurate seismic inventories and do not take into account the stages of regeneration of existing seismic lines. The research project will complete an inventory of the current seismic footprint in the study area based on recent LiDAR mapping. This approach also enables estimates of regeneration of each line (using stand and cover height) and will give the first accurate inventory of the extent of linear disturbance in this study area.
- **Analyze existing movement data using new technology:** Using our LiDAR disturbance footprint data set we will assess whether patterns of seismic use and avoidance that are the basis for restoration and conservation remain when regeneration is taken into account. This will help to inform science based restoration of the landscape for species at risk and will increase our knowledge of functional habitat from a caribou and grizzly bear (predator) point of view.
- **Monitoring of animal movement and use in response to forest change and condition:** To further increase our knowledge of functional habitat we will monitor calving locations and movement of caribou and grizzly bear across the dynamic forest landscape using multiyear data. The research team will assemble matching landscape condition data for all available GPS caribou and grizzly bear data. This will produce information which may be used to detect how animals respond to changing landscape conditions and ongoing and forest managements within their range and will increase knowledge of functional habitat.
- **Assessment of the number of animals and stress levels of animals near linear features and cutblocks:** In the winter of year 1 and 2 of this project caribou fecal pellets across the study area will be collected. These pellets will be used to estimate the number of animals using different cover types and will augment the data obtained from radio collaring (which is limited to sampling a subset of the population). Fecal pellets will also be used to measure stress levels of caribou at increasing radii from cutlines and cutblocks therefore giving an index of both direct (movement, occurrence) and indirect effects (stress) of the effect of forestry practices on species at risk. Such information can be used to directly manage boreal forests to minimize both direct and indirect disturbance to caribou.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*

This research project will help inform sustainable resource development within Canada's Boreal Forests via creating a strategic science based approach to management and restoration of forests that fall within the range of two threatened species in Alberta: woodland caribou and grizzly bears. To achieve self sustaining caribou populations the federal recovery strategy has set the following indicators of success: 1) a maximum of 65% of undisturbed habitat within caribou ranges; 2) identification of current areas of undisturbed habitat and future restoration areas and 3) provide

measures of disturbance for each range that reflect best available information. Active strategies within the recovery strategy include "[where caribou ranges are highly disturbed] identify areas that will be prioritized for boreal caribou recovery and targeted for early land reclamation". In relation to the federal recovery strategy for boreal caribou this research falls under indicators of success (2) and (3), which in turn help to inform target (1). The active restoration under this project also meets the active strategy outlined above. This research will meet Performance Measure 4.1 under Object 4 of the 2010-2014 Standard and falls under indicators 1, 2, 3, 5 and 6. It also fall under Performance Measure 4.2 whereby the knowledge gained in this study will be incorporated, via research and field testing, into forest management decisions in the area of influence.

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*

This project is reliant on integration of science and management tools for effective sustainable forestry within the range of threatened caribou and grizzly bears in Alberta. The project is designed to continually link ongoing management and restoration work with outcomes of ongoing research. This will ensure that ongoing strategies may be altered following research. The final outcome of this project will be a combined science and management based tool sustainable forest management and mitigation of forest activities via 1) the effective and targeted restoration of caribou habitat while minimizing conservation conflicts with other species at risk (grizzly bears) and 2) guiding sustainable future forest operations within grizzly and caribou population ranges. The outcomes of this project, and the role of SFI in supporting this project will be promoted via preparation of reports, website updates, meetings with other potential interested parties, presentation of ongoing research at meetings and workshops, and at national and international conferences and via the production of peer review publications.

3.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Inventory and map seismic cutlines in AOI	Prepare and create a LiDAR inventory of seismic lines for the Narraway, A la Peche and Redrock caribou ranges.	Outreach to stakeholders GIS based inventory of forest cover types, age, size classes and habitats within AOI for management and planning	Complete and accurate fine scale data on the current area of seismic cutlines within AOI	36%	74%
Goal 2: Evaluate animal movement in relation to seismic cutlines at varied stages of recovery (including ongoing restoration work)	Combine LiDAR data with telemetry data from caribou, wolves and grizzly bears to assess patterns of species movement relative to seismic lines of differing ages and composition	Understanding of the effect of cutline characteristics using new data and at a fine scale (age, size, cover) on caribou, their predators and other prey species	Identification of priority cutlines to both increase caribou functional habitat and reduce predation by wolves	6%	94%
Goal 3: Identify patterns of habitat use	Use multiyear caribou movement and forest condition data to quantify animal	Fine scale knowledge of the habitat requirements of caribou and interactions with grizzly	Increased knowledge of functional habitat from a caribou perspective; accurate	40%	60%

	movement and use in changing habitat Identify fine scale calving locations and calf mortality locations (telemetry data)	bears; increased knowledge for forest planning and restoration	measure of current functional habitat on the landscape and within each caribou range		
Goal 4: Evaluate population size and stress levels of caribou in relative to current and historically disturbed habitat and conservation efforts	Collection of fecal pellets and hair for non invasive population estimates of caribou and measurement of stress hormones; laboratory work and analysis Combine previous and current landscape data and extent of seismic lines and cutblocks and genetic and hormone analysis	Knowledge of number of animals using habitat on/near cutlines. Estimates of population sizes using DNA for all caribou ranges in NW Alberta Evaluation of the physiological effect (stress) of seismic cutlines on caribou	DNA based inventory of population sizes to complement survey data and increase knowledge of animal use near cutlines Knowledge on the indirect (physiological stress) effect of cutlines (and their composition) on caribou	50%	50%
Goal 5: Create a science based restoration plan to reduce impact of seismic cutlines on caribou	Rank cutlines in order of restoration priority; review ongoing restoration efforts and how these relate to new LiDAR based classifications and movement data; combine with management scenarios to guide reclamation and improvement based on scientific data	Clear and directed science based approach to habitat restoration and improvement for caribou recovery in Alberta while minimizing conservation conflicts with other species at risk Effective use of resources for conservation	More intact caribou range now and in the future	40%	60%

Project Timeline

Year	Tasks	Goal	Start date	Anticipated completion date
Year 1: Fiscal year	1. Outreach and establish program with collaborators and project partners	1	May 2013	August 2013

2013-2014				
	2. Prepare LiDAR based terrain and vegetation metrics for the Redrock, Narraway and A La Peche caribou ranges which encompasses portions of the regional grizzly bear management area	1	May 2013	Dec 2013
	3 Prepare annual landscape condition data sets to match both the spatial and temporal GPS data sets collected for grizzly bears, wolves and caribou within the study area.	2	August 2013	April 2014
	3. Collect fecal pellets for genetic and hormone analysis to monitor the number of animals in areas off different habitat composition and to assess indirect effects of forest cover variation (stress levels)	4	Dec 2013	Ongoing to March 2015 (winter, some opportunistic summer samples may be collected)
Year 2: Fiscal year 2014-2015	1. Analyze animal movement and habitat selection data in relation to changes in forest condition, calving locations, and carnivore predation events	3	May 2014	Sep 2014
	2. Analyze grizzly bear, caribou and wolf GPS movement data in relation to new LiDAR classification datasets to understand response to linear features and vegetation regeneration	2, 3	June 2014	Jan 2015
	2. Evaluate new data in relation to current restoration efforts. Identify restoration priorities based on ranking of cutlines	5	Feb 2015	March 2015
	4. Collect fecal pellets for genetic and hormone analysis	4	Ongoing	March 2015
	5. Laboratory work on fecal pellets to estimate population sizes and number of caribou near forest features	4	April 2014	Ongoing to Dec 2015
	6. Measurement of stress hormone levels in relation to cutline characteristics and ongoing conservation characteristics	4	April 2014	Ongoing to Dec 2015
Year 3: Fiscal year 2015-2016	1. Use new data on functional habitat (calving areas, movement in relation to changing landscapes) to design harvesting strategies and secure undisturbed caribou habitat	5	April 2015	Sep 2015
	2. Forest modeling of future habitat change and how this relates to new data collected in this project and sustainable forest operations	5	August 2015	March 2016
	2. Laboratory work on fecal pellets to estimate population sizes and stress hormones in relation to conservation efforts and cutline characteristics	4	Ongoing	Dec 2015

	3. Measurement of stress hormone levels in relation to cutline characteristics and ongoing conservation characteristics	4	Ongoing	Dec 2015
	4. Analysis, outreach and presentation of final reports, publications and tools for application	5	Jan 2016	March 2016

Project Budget (will require review with partners if we are successful)

Expenditure	**Total Amount**	**Amount requested from SFI**	**Matching Funds***			**In-Kind Contributions***		
			FRI	**Weyerhaeuser**	**West Fraser**	**FRI**	**Weyerhaeuser**	**West Fraser**
Year One								
Staff Salary and Benefits								
Program supervisor	40,000	0	0			40,000		
Field crew for faecal collection and ground truthing ($180/day x 20 days)	3,600	1,300	1,300	1,000				
Research technician for analysis (0.25 year)	12,000	2,000	9,000		1,000			
Grizzly bear scientist	25,000	0	25,000	0	0			
Operating Costs								
Research Activities								
GIS/LiDAR processing ($250/day x 36 days)	9000	1500	500	3000	3000	1000		
Field fecal collection ($3000/day x 15 days)	45000	14000	6000	5000	5000	2000	7000	6000
Laboratory work ($30/sample x 150 samples)	4500	3000	1500					
Food and accommodation for field crew ($100 x 20 days)	2000	1500	500					
Computer and analysis software	3000	1500				1500		
Materials and supplies (cooler for samples, mailing costs)	1500	1200	300					
Travel and meetings								
Partner Meetings (2/year @ 4000)	8000	6000	2000					
Conferences (1/year @ 2000)	2000	1500	500					
Education & Outreach	1000	500	500			0		
Communications: Report preparation, printing, production	1000	1000	0					
Total	**157,600**	**35000**	**47100**	**9000**	**9000**	**44500**	**7000**	**6000**
Year Two								
Staff Salary and Benefits								
Program supervisor	40,000	0	0			40,000		
Field crew for fecal sampling and ground truthing ($180/day x 18 days)	3,240	900	1,340	1,000				
Research technician for analysis (0.5 year)	12,000	2,000	9,000		1,000			
Grizzly bear scientist	25,000	0	0	12,500	12,500			

Operating Costs								
Research Activities								
GIS assembly of landscape change data ($250/day x 36 days)	9000	1500	500	3000	3000	1000		
Field fecal collection ($3000/day x 18 days)	54000	28000	6000	5000	5000	2000	4000	4000
Laboratory work ($30/sample x 300 samples)	9000	7500	1500					
Food and accommodation for field crew ($100 x 18 days)	1800	1500	300					
Computer and analysis software	2000	1500	500			1500		
Materials and supplies (cooler for samples, mailing costs)	700	600	100					
Travel and meetings								
Partner Meetings (2/year @ 2000)	4000	2000	2000					
Conferences (1/year @ 2000)	2000	1500	500					
Education & Outreach	2400	1500	500			400		
Communications: Report preparation, printing, production	2000	1500	500					
Total	**167,140**	**50000**	**22740**	**21500**	**21500**	**44900**	**4000**	**4000**
Year Three								
Staff Salary and Benefits								
Program supervisor	40,000	0	0			40,000		
Field crew for ground truthing ($180/day x 20 days)	3,600	1,300	1,300	1,000				
Research technician for analysis (0.25 year)	12,000	2,000	9,000		1,000			
Grizzly bear scientist	25,000	0	25,000					
Operating Costs								
Research Activities								
GIS assembly of forest modeling data ($250/day x 74 days)	18500	10000	500	4000	4000	1000		
Laboratory work ($30/sample x 600 samples)	18000	13000	5000					
Food and accommodation for field crew ($100 x 20 days)	2000	1500	500					
Computer and analysis software	2000	1500	500			1500		
Materials and supplies (cooler for samples, mailing costs)	700	600	100					
Travel and meetings								
Partner Meetings (3/year @ 2000)	6000	3000	3000	1000	1000			
Conferences (2/year @ 2000)	4000	3500	500					
Education & Outreach	2000	1100	500			400		
Communications: Report preparation, printing, production	3000	2500	500					
Total	**136,800**	**40000**	**46400**	**6000**	**6000**	**42900**	**0**	**0**

Organization Information

Lead Organization Name (address on P.2):	**Tk'emlups te Secwepemc**	
Name, phone and email for Project Director:	Monica Parker, Finance Manager 250-828-9736 Phone 250-314-1583 Fax monica.parker@kib.ca	Carrie Dan, Assistant Manager Culture & Heritage 250-828- 9871 250-314-1586 Carrie.dan@kib.ca
Lead Organizational Mission Statement:	**VISION STATEMENT** Guided by our ancestors, we, the Tk'emlu'psemc te Secwepemcu'l'ecw are proud caretakers who strive to secure and protect our lands and exercise our rights for the greatest good of our people, for future generations. **MISSION STATEMENT** To provide leadership, services, and opportunities to our community by focusing on our people, land, resources, organizational structure and asserting our jurisdiction.	
Lead Organization Annual Budget:	$25,000,000	
Two references who can speak to the potential of the Project:	Michael Blackstock, Regional Negotiator BC Ministry of Forests Lands & Natural Resource Operations (MFLNRO) Michael.blackstock@gov.bc.ca	Dr. Marianne Ignace, Director, First Nations Language Center Professor of Anthropology & First Nations (SFU) 250-574-3869 ignace@sfu.ca

Confirmed Project Partners *contact	**Tk'emlups te Secwepemc** **Adams Lake Indian Band** **Bonaparte Indian Band** **Neskonlith Indian Band** **Simpcw First Nation**	**Skeetchestn Indian Band** **Splatsin First Nation** **International Forest Products Limited** **West Fraser Timber Company Limited** **BC Timber Sales**	**BC Ministry of Forests, Lands and Natural Resource Operations** **Shuswap Nation Tribal Council** **Tolko Industries Ltd.** **Gilbert Smith Forest Products Ltd.**
Project Title	Cultural Heritage Resource Assessment Process Development with First Nation (FN) Communities in the BC Interior		
Grant request	$33,990		
Total Budget	$50,740		
Brief Project Summary:	With the help of knowledgeable FN elders, develop a Cultural Heritage assessment process and deliver training sessions to First Nations communities in the Kamloops TSA. This will improve the transfer of knowledge to younger generations of First Nations peoples who will work with the forest companies to assist in the identification of culturally important sites so that this important information is not lost and can be continually applied to forest management in BC and support compliance with the SFI standard		
Elements(s) of the SFI 2010-2014 Program addressed:	**Objective 6. Protection of Special Sites** *To manage lands that are ecologically, geologically or **culturally** important in a manner that takes into account their unique qualities.* **Objective 18 – PM 18.2** *Program participants with forest management responsibilities on public lands shall confer with affected indigenous peoples (communication with indigenous peoples, understanding and respect for traditional forest-related knowledge, identify spiritually, historically or culturally important sites and address use of non-timber forest products of value to indigenous peoples)*		

Partner Organization Contact Information

Project Partners	Primary Contact Name/Title	Contact Information	Phone	Brief Summary of Individual and Organizations
Tk'emlups te Secwepemc	Carrie Dan *Assistant Manager Culture & Heritage/Senior Archaeologist*	341-345 Chief Alex Thomas Way Kamloops, BC, V2H 1H1 Carrie.dan@kib.ca	250-828- 9871	Lead organization, member of Cultural Heritage Working Group, participated in development of archeological assessment process
Adams Lake Indian Band	Dave Nordquist *Aboriginal Rights and Title* Steve Murphy *Natural Resource Manager*	P.O. Box 588, 6453 Hillcrest Road Chase, BC, V0E 1M0 dnordquist@alib.ca smurphy@alib.ca	250-679-8841 250-572-4458	Co-chair of Cultural Heritage Working Group,
Bonaparte Indian Band	Violet Antoine/Bert William *Natural Resources*	PO Box 669, Cache Creek, BC, V0K 1H0 bwilliam@bonaparteindianband.com vantoine@bonaparteindianband.com	250-457-9624	Member of Cultural Heritage Working Group
Neskonlith Indian Band	Carol August *Finance*	P.O. Box 318 Chase, BC V0E 1M0 karenraugust@neskonlithband.com	250-679-3295	Member of Cultural Heritage Working Group
Simpcw First Nation	Dallas Ingvarsten *Referrals*	500 Dunn Lake Rd Barrière, BC, V0E 1E0 Dallas.Ingvartsen@simpcw.com	250-672-9995	Member of Cultural Heritage Working Group
Skeetchestn Indian Band	Mike Anderson *Natural Resources Manager*	Box 178,Savona, BC, V0E 2J0 mikeanderson@skeetchestn.ca	250-373-2493 250-819-3023	Member of Cultural Heritage Working Group,
Splatsin	Cory Lee *Title and Rights Project Manager*	P.O. Box 460, 970 2 Old Vernon Rd Enderby, BC, V0E 1V0 cory_lee@splatsin.ca	250-838-6496 (ext.248)	Member of Cultural Heritage Working Group
International Forest Products Ltd.	Rhiannon Poupard, *Forester*	9200 Holding Road, Chase, BC, V0E 1M2 Rhiannon.poupard@interfor.com	250-679-6818 778-257-4559	Major Licensee - SFI Program Participant, Member of Cultural Heritage Working Group
West Fraser Timber Company Ltd	Kane Copley, *Forester*	PO Box 97, 100 Mile House, BC, V0K 2E0 Kane.copley@westfraser.com	250-395-8219	Major Licensee – SFI Program Participant, Member of Cultural Heritage Working Group
BC Timber Sales	Zoran Boskovic *Forester*	1265 Dalhousie, Kamloops, BC, V2C 5Z5 Zoran.Boskovic@gov.bc.ca	250-371-6577	Major Licensee – SFI Program Participant, Member of Cultural Heritage Working Group
Ministry of Forests, Lands and Natural Resource Operations	Kathryn Lawrence, *First Nations Advisor*	1265 Dalhousie, Kamloops, BC, V2C 5Z5 Kathryn.Lawrence@gov.bc.ca	250-371-6605	Co-chair of Cultural Heritage Working Group
Shuswap Nation Tribal Council	Bonnie Leonard *Tribal Director*	680 Athabasca W, Kamloops BC V2H 1C4 bleonard@shuswapnation.org	250-319-6019	Tribal Council Director
Tolko Industries Ltd	Michael Bragg *Woodlands Manager*	6275 Old Yellowhead Hwy, Kamloops, BC, V2H 1T8 Michael.bragg@tolko.com	250-578-2181	Major Licensee
Gilbert Smith Forest Products Ltd	Dave Tremblay *Woodlands Manager*	PO Box 689 Barriere, BC, V0E 1E0 D_tremblay@telus.net	250-672-9435	Major Licensee

Project Details

The final outcomes of this project will benefit, and where possible be applied in a regional or larger scope. However, it is understood that the participating First Nations (Tk'emlups te Secwepemc, Adams Lake Indian Band, Simpcw First Nation, Neskonlith Indian Band, Skeetchestn Indian Band, Bonaparte Indian Band and Splatsin) retain their respective inherent rights including all intellectual property rights associated now and in the future and have ownership of all cultural information obtained from them.

Cultural Heritage Resources (CHRs) are defined as the legacy of physical artifacts, tangible attributes, and intangible attributes and values of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. Cultural Heritage Resources include tangible culture (such as historic sites, plants, wildlife, habitat) and intangible culture (such as traditions, language, traditional ecological knowledge and oral tradition) (Kamloops TSA Cultural Heritage Working Group Terms of Reference 2012).

The introduction of the *Forest and Range Practices Act* legalized the requirement for the conservation and protection of Cultural Heritage Resources. Although it is a legal requirement for forest licensees to manage for CHRs through results and strategies in their Forest Stewardship Plans, there is general consensus within the Kamloops Timber Supply Area (TSA) that these resources are not being adequately identified and managed. A tripartite working group consisting of local first nations, forestry licensees and government has been formed to provide guidance and create a consistent system to identify and manage Cultural Heritage Resources (CHR) within the Kamloops Timber Supply Area. Since its formation in 2012 the working group has progressed towards mutual agreement on how the CHR process should be implemented. Now, in order to advance their recommendations and ideas into practice, the working group is looking for resources to enable the creation of a standardized procedure and support the delivery of training to local band members.

Goals:

1) Create a field card and associated procedure that can be used to sample for and identify cultural heritage resources in a field setting.
2) Develop a training system that will teach how to use the procedure and complete the field card.
3) Deliver the training system in the 6 first nations communities involved in the project. The intent will be that each band has at least one field crew capable of implementing CHR sampling in the field at completion of the project.
4) Deliver an additional training session for forest professionals in the TSA (development foresters, layout technicians) to improve general awareness of CHR.

1. ***For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.***
   The project will benefit forest management on public land in the BC southern interior and provide tools to support compliance with the SFI Standard (especially objectives 6 & 18) by:
   - creating a sound and consistent method for field assessment of CHR
   - developing capacity to conduct field assessment for cultural use values
   - facilitate the involvement of first nations and first nation knowledge in the field assessment of potential cultural heritage resource sites
   - improve identification of special sites by creating a workforce with the traditional knowledge/understanding required to recognize them
   - improve general CHR awareness of forest professionals operating in the TSA
   - building understanding and support for the SFI program among First Nations communities and their leaders

2. ***What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?***
   1. Public outreach: present project to communities (Chief and Council Meetings, Community Days etc.) The outreach will focus on how the SFI program supports First Nations' cultural needs through its standard and this proposed program.
   2. Develop and promote a video presentation documenting the progression of the project. The video may be placed on the WSIC website, available for the SFI website, and other educational and community websites that have an interest in this work.
   3. Present to senior leadership at BC Ministry of Forests Lands and Natural Resource Operations
   4. Present through the Western Canadian SFI Implementation Committee
   5. Present through partner extension and outreach mechanisms (partner websites, news releases newsletters, meetings, public presentations)

      Note: In all instances the SFI Program and logo will be highlighted and promoted.

Project Goals

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Develop system for site level assessment.	1. Bands to provide comprehensive lists/summaries of applicable CHRs 2. Outline a sound sampling method 3. Combine the outcomes of 1 & 2 to develop a field card for site level assessment.	A statistically sound and culturally driven method for site level assessment of CHR.	Success will be achieved when a field card and associated procedures has been finalized.	$9,200	$4,000
Goal 2: Develop a training session for field crews for use of field card and associated procedures.	1. Create a training presentation with photos/diagrams 2. Presentations reviewed by elders 3. Design a field component (show structures, plants, signs, etc.)	A two-part training session with: - Classroom presentation, images, how to complete field card - Field component for identifying CHRs and review of sampling procedure	Success will be achieved when a training session/package ready for delivery is finalized.	$10,250	$3,000
Goal 3: Deliver training sessions to 6 bands and forest professionals	1. Schedule 2 day training session with bands (need band elders available to be present for one day) 2. Deliver training and document attendance of band members trained. 3. Deliver training session for forestry professionals	Knowledge transfer from band Elders to community members; At least 1 crew from each band trained and able to complete CHR assessments Forest professionals gain a general awareness of CHR	Success will be measured by the number of band members trained. Number of forestry professionals trained	$14,540	$7,350
Goal 4: Public Outreach and Education	1. SFI Program Participant Partners to complete project promotion acitivites listed above	Public awareness and extension of project outcomes	Outreach activities completed	n/a	$2,400

Project Timeline

Hire coordinator ; engage with band Elders for lists of CHRs	April-2013
Create sampling method process	May - June 2013
Coordinator and bands to combine method and lists to create a field card and associated procedure	May – June 2013
Individual Bands to review and finalize field card and associated procedure **(Goal 1 Completion)**	May - June 2013
Develop a training session (PPT presentation, field component, prepare examples, instructions) **(Goal 2 Completion)**	June - July 2013
Schedule and delivery of training sessions **(Goal 3 Completion)**	July - August 2013
Final report, project summary and preparation of outreach/publication materials **(Goal 4 Completion)**	September-Dec 2013
Project timeline Start – Finish	**April 2013 – Dec 2013**

Budget

Expenditure	TOTAL COST	Amount Requested	Matching Funds	In-Kind Contributions
Staff Salary and Benefits: Administrative costs for Project Lead Phase 1: ($950) Phase 2: ($600) Phase 3: ($600)	$2,150	**$2,150**		
Elder interviews and review and teaching Phase 1: Creation of CHR lists ($4,000) Phase 2: Review of training material ($2,000) Phase 3: presence at training delivery ($3,000)	$9,000	**$5,000**		$4,000 in kind from Bands
Travel: Phase 1: ($750) Phase 2: ($750) Phase 3: ($3,750)	$5,250	**$4,500**		$750 in kind from: *Interfor, West Fraser, BCTS, Tolko, Gilbert Smith*
Creation of field card and sampling method: Phase 1: Coordinator to compile CHR requirements from elders, meet with industry, support and finalize field card and procedures ($8,200) Phase 1: Printing of field cards ($1,000)	$9,200	**$6,200**	$3,000 *Shuswap Nation Tribal Council*	
Develop training session: Phase 2: Coordinator to prepare presentation, field component, collect or build examples, field card instructions, compile student packages ($7,800)	$7,800	**$7,800**		
Schedule and delivery of training session: Phase 3: Coordinator organizes and facilitates 2 day training session for band members, and 1 day training session for licensees ($3,640) Phase 3: Facility rental and supplies ($1,700) Phase 3: FN Participants ($6,000) Phase 3: Licensee Participants ($3,600)	$14,940	**$8,340**	$3,000 (matching funds) Sponsorship of band member training donated by: *Interfor, West Fraser, BCTS, Tolko, Gilbert Smith*	$3,600 in kind from: *Interfor, West Fraser, BCTS, Tolko, Gilbert Smith*
Public outreach and extension of project outcomes	$2,400	**n/a**		$2,400 in kind from: *Interfor, West Fraser, BCTS, Tolko, Gilbert Smith, MFLNRO*
Total	**$50,740**	**$33,990**	**$6,000**	**$10,750**

Organization Information

Lead Organization Name and Address	**Pinchot Institute for Conservation** [www.pinchot.org]
Name, phone and email for Project Director	Brian A. Kittler 202-797-6580 bkittler@pinchot.org
Lead Organizational Mission Statement	Strengthen forest conservation thought, policy and action by providing nonpartisan research, and education and technical assistance on emerging issues influencing the future of forests.
Lead Org Annual Operating Budget	Total Revenue & Support (income from all sources for the most recently completed year): $2,057,110 income in 2012 Fiscal Year End Date: December 31, 2013
Two references	Mike Jostrom, Plum Creek, Mike.Jostrom@plumcreek.com Nathan McClure, Georgia Forestry Commission, nmcclure@gfc.state.ga.us

Project Overview

Confirmed Project Partners	**Project Title**	**Amount Requested**	**Total Project Budget**	**Brief Project Summary**	**What element(s) of the SFI 2010-2014 Program does/do your Project address**
Pinchot Institute, Green Path Sustainability Consultants, Spatial Informatics Group.	*Reconciling Forest Certification Pathways and Sustainability Criteria for the International Trade in Wood Biomass for Energy*	$30,000	$93,000	The project will bring together the best-available scientific data and knowledge, informing a field-based stakeholder dialogue on prospective EU sustainability criteria for forest biomass. The focus will be on forest sustainability, sustainable management practices & programs, chain of custody systems, Greenhouse gas life cycle assessment, and compliance with EU rules affecting wood pellet exports from the U.S. south.	Project relates to all SFI program standard outputs

Project Partners

Confirmed Project Partners	**Primary Contact Name & Title**	**Complete Contact Information**	**Brief Summary of Individual and Organizations Qualifications and Experience**
Pinchot Institute for Conservation	Mr. Brian Kittler, Project Director	202-797-6580 bkittler@pinchot.org 1616 P. Street, Suite 100 Washington, DC 20036	Brian leads the Institute's work on bioenergy which is focused on the science/policy interface. He has extensive experience in sustainability analysis, particularly in sustainable forest management criteria and indicators. He has experience developing voluntary biomass harvesting guidelines, and was lead author of a recent report on "Pathways to Sustainability" within wood pellet export markets. He holds a Bachelor of Arts in Environmental Policy from Colby College and a Master of Science in Environmental Sciences and Policy from the Johns Hopkins University.
GreenPath Sustainability Consultants	Mr. David Refkin, President	(914) 980-8346 DavidRefkin@gmail.com	David serves a broad base of clients with interests in forestry, recycling, climate change and sustainability in the business sector.

			David has worked on forestry and sustainability issues internationally for over 20 years. Previously at Time Inc. in both paper purchasing and sustainability roles he was responsible for increasing the percentage of certified fiber in Time Inc's paper from 25 to over 70% and helped expand the role of certification on private and public lands in the United States, Canada and in Europe. David has served on the Board of Trustees, Treasurer and member of the Executive Committee for the H. John Heinz III Center for Science, Economics and the Environment and served as President of the National Recycling Coalition from 2006 to 2009. David holds a BS in Accounting from SUNY- Albany, an MBA in Finance from Iona College and attended NYU's Strategic Environmental Management program.
Spatial Informatics Group, LLC	Dr. Thomas Buchholz, Senior Scientist	tbuchholz@sig-gis.com 3248 Northampton Ct. Pleasanton, CA 94588 510-427-3571	Thomas works as Senior Scientist at Spatial Informatics Group LLC and is especially knowledgeable of American and European bioenergy research, policy communities, and industry. Thomas has developed sustainability frameworks for bioenergy systems with substantive stakeholder inputs, and tested them on case studies in the US and abroad. Thomas' US-based work focuses on bioenergy-related carbon accounting policies and economics. Recently, Thomas served on the US EPA's biogenic carbon analysis team, completing a meta-analysis of over 40 greenhouse gas life cycle analyses conducted since 1992.

Project Details

Europe's demand for imported wood pellets is expected to grow to as large as 60 million tons annually over the next 20 years. Most of this will come from the United States (US) and Canada. In 2010 only 2.6 million metric tons of wood pellets were imported into the European Union (EU), and in 2012 the US exported over 1.5 million tons, more than doubling its export capacity in just two years. With this large potential for market expansion and related sustainability impacts, there is a major need to address the emerging issues around the expansion of exported wood pellets to Europe.

EU officials are crafting "sustainability criteria" that would apply to solid biomass used as fuel for renewable energy, including imported wood chips and pellets. These criteria will set the bar for landowners and pellet manufacturers in the areas of biomass chain-of-custody, greenhouse gas (GHG) emissions, biodiversity conservation, water resources, and other factors. The United Kingdom, a major importer of biomass, is also planning to announce UK specific criteria soon. There is an ongoing debate within Europe about the nature of sustainability criteria, but there is a significant lack of dialogue that reaches across the Atlantic to US stakeholders, many of whom are ultimately responsible for the implementation and effectiveness of EU sustainability rules as feedstock providers.

In an attempt to help clarify the implications of EU sustainability criteria for US and EU woody biomass stakeholders, the Pinchot Institute completed in July 2012 a "Pathways to Sustainability" study of various procurement pathways through which wood can be sourced by North American pellet mills supplying Europe.[1] The Pathways report focused largely on the southeast US, a region with a dominant and rapidly expanding wood pellet export market. The Pathways report delivered: (A) a comparison of potential EU sustainability criteria to existing sustainable sourcing programs in operation in the US; and (B) an evaluation of how well pathways like certified forest management and SFI's chain of custody and Fiber Sourcing standards reduce environmental risks (e.g. biodiversity, water resources, and GHG flux) in biomass supply chains. The report concludes that each pathway addresses varying levels of environmental risk, providing different levels of assurance that EU sustainability criteria are addressed and conservation values are maintained.

Following the release of the Pathways report, the Pinchot Institute brought the results of the report to a two-day workshop held in Quebec organized by Natural Resources Canada and the International Energy Agency (IEA) Bioenergy Executive Committee in October 2012. Over 40 participants from 11 countries, including a representative from SFI, explored sustainability issues from biodiversity to GHG life cycle accounting (LCA) requirements related sustainability criteria for biomass trade. The event was a unique opportunity for EU policy makers developing EU sustainability criteria to see Canadian forestry and conservation issues for themselves and to participate and observe the debate around sustainable sourcing and GHG LCA requirements.

However, as was noted by the four US representatives at the Canadian event and the Canadian organizers themselves, the US context ownership (e.g. the predominance of privately owned lands), certified forest landscape, and sustainability questions are distinctively different than those of Canada, so much so that a similar event in the US would be of great value, building off the foundation provided in Quebec. The Pinchot Institute is leading an organizing committee to plan and convene a similar two-day field-based event in the southeast US, the region of the world that is currently Europe's top supplier, already producing over 50% of all pellet exports in North America.

This US event is being designed to precede or coincide with the public consultation period of forthcoming EU sustainability criteria and inform that process by helping EU officials understand US forestry programs and practices, and thus the practicality of their proposed sustainability criteria. The event will build off of the outcomes of the Canadian event and cover important issues not fully addressed in Canada, including a significantly greater focus on GHG LCA and the application of various procurement pathways. The dialogue will be informed by key US scientists working with the US Environmental Protection Agency and US Department of Agriculture to evaluate alternative approaches to GHG LCA of bioenergy pathways, going so far as to offer examples of how these approaches are applied in the forest landscape surrounding the meeting location. Participants will get to see firsthand how GHGs are accounted for and certified supply chains constructed. Our team will evaluate the GHG consequences of alternative forest management scenarios and bring this information for discussion during the field tours visiting various forest management types (e.g. a low intensive non-industrial forest and an intensive industrial operation).

As the facilitators, our objective is to organize and convene a workshop that will bring together a diverse group of knowledgeable experts and stakeholders, and to have participants come away from the workshop better informed, better networked, and better equipped to comply with sustainable sourcing requirements in both Europe and the U.S. Approximately 40 invited participants will include: US pellet producers, European purchasers, forest landowners, the traditional forest products industry, forest certification bodies, US and EU government officials, and conservation NGOs.

[1] Pathways to Sustainability: An Evaluation of Forestry Programs to Meet European Biomass Supply Chain Requirements http://www.pinchot.org/gp/Pathways_to_Sustainability

The innovative approach of this project is to combine skillful facilitation of an international group of stakeholders with cutting edge analysis of GHG LCA and sustainable procurement pathways as they operate across the landscape in which this international audience will gather. The focus is exploring the role of certification in a new and rapidly growing market and opportunities that this growing market presents for expanding the percentage of certified forestland in the US south.

How does this project illustrate and inform the role of SFI?

This project explicitly evaluates the relation of the SFI program to forthcoming EU sustainability criteria. We will draw from the knowledge and experience of SFI member companies attending the workshop. These individuals will discuss their efforts to build wood biomass supply chains using SFI standards. The Fiber Sourcing standard will likely be a focus given that it is expected to continue to be very popular with the wood pellet sector since only 17% of lands in the region is currently certified. This project will explore options for the wood pellet sector to: (1) help increase the pool of certified landowners in the region, and (2) extend SFI's footprint through chain of custody, batch crediting, and the Fiber Sourcing program.

The project will explore the effectiveness of SFI's Fiber Sourcing program in the wood pellet supply chain. Effectiveness will be measured against proposed EU sustainability criteria and locally identified needs for maintaining conservation values. Invited companies using the SFI Fiber Sourcing program will be asked to come to the workshop prepared to discuss their efforts through Fiber Sourcing. Most importantly, Plum Creek has committed to providing in kind support to this project, including organizing and hosting the field tour component of the workshop, showing this international audience sustainable forestry practices in the US and specific activities undertaken as an SFI certified landowner.

Prior to the workshop, the project team's analysis of the workshop study area will tally up all certified and non-certified acres in the woodshed around the workshop location in an effort to demonstrate how a procurement officer working at a wood pellet mill might begin to think about constructing a supply chain of certified and non-certified fiber. The project team will also complete GHG analysis of forest management scenarios in the workshop study area to inform SFI on the GHG consequences of various forest management scenarios. Based on the results of the facilitated dialogue, the field tour, and the workshop study area analyses, the project team will develop a report and share it directly with SFI. This report will explore GHG flux in SFI certified forests and offer an assessment of the efficacy of the Fiber Sourcing program in (1) meeting EU standards, and (2) ensuring conservation values are maintained. The goal is to help the SFI program to better understand the consequences of alternative management strategies and how its standard may evolve to better incorporate GHG management, and promote enhanced carbon sequestration. The research by the project team will provide new information going into SFI's standards revision process, introducing relevant research and synthesis to inform the further growth and evolution of forest certification programs.

This grant would leverage several SFI member companies (e.g. Plum Creek and MeadWestvaco) who have tentatively agreed to sponsor the two-day event. Plum Creek, the largest private forest landowner in the US and one of the largest holders of private certified forests in the world, has already agreed to support the workshop through in-kind contributions of organizing and holding field tours. In addition to those SFI member companies providing match, the project will strengthen the understanding of SFI's program among other member companies and non-member companies alike. Importantly, the event will serve as a networking session and SFI will have the opportunity to grow new partnerships with wood biomass export businesses, landowners, and pellet buyers.

As discussed above in the background section and reflected below in the budget, this project leverages the workshop held in Quebec in October 2012. The IEA Task 40 and 43 are standing committees that meet annually with a workplan being carried out in between meetings. This project will augment the work of this group beyond what they are functionally able to achieve. Workshop participants and the broader community of conservation, forestry, forest products, and energy stakeholders in the US will all be positively affected by this work given that the Pinchot Institute, SFI, and the workshop planning team members are all active participants of significant professional networks throughout North America.

What activities will promote the outcomes of this project and SFI Involvement?

This project will leverage a $40,000 grant request from the Pinchot Institute in partnership with SFI, to the Program on the Endorsement of Forest Certification (PEFC). As such, SFI member companies and by extension PEFC members will participate in the workshop and research assessments. All information and communications resources developed through this grant project will be made publicly available through project partner websites and marketed throughout the SFI network in the US and Canada. Additionally, as the two-day event will likely be held just prior to an IEA Task 40 and US Industrial Pellet Association (USIPA) meeting in October 2013, the outcomes of our project will be communicated through these organization's networks. Holding our two-day event immediately prior to or after the IEA/USIPA meeting allows us to leverage the fact that several key European stakeholders will already be headed to the southeast for the IEA meeting in Miami, Florida. By organizing the meeting around the field tours and injecting timely analytical work, the event funded in part by SFI will be located in the heart of the pellet export sector, likely in central or southeastern Georgia in association with Plum Creek's timberland, providing for a hands on examination of certification, the applicability of proposed EU sustainability criteria, and GHG accounting.

Specific activities funded in this project by SFI/PEFC include:

1. Plan and organize the two-day event, delineating the study area (i.e. a biomass supply area for a mock pellet mill) that will provide a focus of discussion for workshop participants, and the pre-workshop analytical tasks discussed below. (***Proposed to SFI for funding***)
2. Finalize a quantitative meta-analysis of more than 40 forest bioenergy GHG LCA studies conducted globally between 1991 and 2013 to inform the dialogue of workshop participants on this contentious issue, and to inform tasks 3 and 4 below. (***Proposed for joint funding by SFI/PEFC***)
3. Assess the total available biomass in the workshop study area that is currently certified and measures needed to expand this supply through forest management certification, Fiber Sourcing, and chain of custody certification. This assessment would also determine how the mock pellet mill could address EU sustainability criteria, including GHG LCA requirements. (***Proposed for joint funding by SFI/PEFC***)
4. Examine GHG consequences when implementing alternative forest management strategies in the workshop study area using alternative LCA approaches. (***Proposed for joint funding by SFI/PEFC***)
5. Hold the two-day event including field tours. (***Proposed for joint funding by SFI/PEFC***)
6. Complete a follow up report on the effectiveness of SFI's procurement pathways (Fiber Sourcing and chain of custody) and implications of SFI forest management certification on carbon flux and carbon accounting. (***Proposed to SFI for funding***)
7. Complete a workshop summary report and hold a webinar to disseminate the results of the workshop broadly. (***Proposed for joint funding by SFI/PEFC***)

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
1. Increase the knowledge of European pellet purchasers and EU officials with regards to US forestry practices and sustainability programs.	• Plan and host two-day field-based workshop, showing forestry on-the-ground. • Complete workshop study area analyses. • Complete summary report and workshop.	• Improved communication and coordination among market actors. • Workshop study area analyses. • Summary report and webinar.	• Workshop attendee survey data. • The degree to which EU sustainability criteria reflect US sustainable forestry principles.	$30,000 (all grant funds contribute to this goal.)	Plum Creek to host tours (including lunch). SFI member companies, non-SFI companies, and IEA are asked to sponsor. PEFC $40,000 proposed.
2. Provide a platform for EU authorities to inform pellet producers regarding current and anticipated sustainable sourcing requirements, and for US-based companies to examine the congruency of proposed EU rules with existing wood procurement pathways.	• Plan and host two-day field-based workshop. • Complete pre-workshop analyses.	• A successful agenda for the two-day event. • A successful workshop. • Stand alone analyses that are also integrated into workshop.	• Did the event successfuly get the target list of attendees to participate? (yes/no)	$30,000 (all grant funds contribute to this goal.)	Plum Creek to host tours (including lunch). SFI member companies, non-SFI companies, and IEA are asked to sponsor. PEFC $40,000 proposed.
3. Define a clear set of procurement options available to US pellet producers specifically in the southeastern US that satisfy or exceed EU sustainability criteria.	• Complete pre-workshop analyses. • Complete post-workshop report to SFI and publicly available report. • Communicate as necessary with EU officials following workshop.	• A list of procurement options that meet EU sustainability criteria.	• Is the list of procurement options viewed as credible by market stakeholders including EU policy makers?	$30,000 (all grant funds contribute to this goal.)	Plum Creek to host tours (including lunch). SFI member companies, non-SFI companies, and gov are asked to sponsor. PEFC $40,000 proposed.
4. Explore in detail the various approaches to GHG emissions accounting along the biomass supply chain. Provide a synthesis of research on GHG accounting as it related to certified forest management in the US south.	• Using the workshop study landscape, analyze the GHG consequences of certain forest management activities under different carbon scenarios.	• An analysis of GHG LCA and flux within the landscape of the study area and explanation of what this could mean for forest management and energy end points.	• Is the analysis complete and accepted by scientists and peers at the workshop ?	$30,000 (all grant funds contribute to this goal.)	

Project Timeline

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Plan/ organize event									
Finalize a quantitative meta-analysis of GHG LCA studies									
Assess the available biomass from procurement pathways									
Examine the workshop study area based on alternative GHG LCAs and the GHG consequences of implementing alternative management approaches									
Hold the two-day event including field tours.									
Complete a workshop summary report and webinar									
Complete report on effectiveness of SFI's procurement pathways and report directly to SFI									

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	$12,500	$16,532 (PEFC)	
Operating Costs			
Research Activities	$15,500	$17,500 (PEFC)	
Meetings		$5,000 (MeadWestvaco-anticipated) + $6,000 (IEA anticipated)	~$7,000 (Plum Creek)
Travel		$2,000 (PEFC)	
Education & Outreach	$2,000	$2,968 (PEFC) + ~$5,000 (MeadWestvaco-anticipated)	
Communications		$1,000 (PEFC)	
Total	**$30,000**	**$56,000**	**$7,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Team member	**% of SFI funds allocated to person.**
Kittler	13%
Buchholz	13%
Refkin	5%

INTERNAL REVENUE SERVICE
DISTRICT DIRECTOR
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: DEC 01 1998

PINCHOT INSTITUTE FOR CONSERVATION
1616 P ST NW STE 100
WASHINGTON, DC 20036-1424

Employer Identification Number:
52-1935342
DLN:
17053276793048
Contact Person:
D. A. DOWNING
Contact Telephone Number:
(877) 829-5500
Our Letter Dated:
November 1995
Addendum Applies:
No

Dear Applicant:

This modifies our letter of the above date in which we stated that you would be treated as an organization that is not a private foundation until the expiration of your advance ruling period.

Your exempt status under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3) is still in effect. Based on the information you submitted, we have determined that you are not a private foundation within the meaning of section 509(a) of the Code because you are an organization of the type described in section 509(a)(1) and 170(b)(1)(A)(vi).

Grantors and contributors may rely on this determination unless the Internal Revenue Service publishes notice to the contrary. However, if you lose your section 509(a)(1) status, a grantor or contributor may not rely on this determination if he or she was in part responsible for, or was aware of, the act or failure to act, or the substantial or material change on the part of the organization that resulted in your loss of such status, or if he or she acquired knowledge that the Internal Revenue Service had given notice that you would no longer be classified as a section 509(a)(1) organization.

If we have indicated in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

Because this letter could help resolve any questions about your private foundation status, please keep it in your permanent records.

If you have any questions, please contact the person whose name and telephone number are shown above.

Sincerely yours,

C. Ashley Bullard

District Director

Letter 1050 (DO/CG)

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, _David Saah, Chairman_____ (Name, Title), as a representative of __Spatial Informatics Group – Natural Assets Laboratory__(SIG-NAL)_____ (Organization Name) and a Partner in ____Reconciling Forest Certification Pathways and Sustainability Criteria for the International Trade in Wood Biomass for Energy_____ (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by __SIG-NAL_____ (Organization Name) to sign this agreement.

Signed:

David Saah
_____
Name

Chair_____
Title

_Spatial Informatics Group – Natural Assets Laboratory_____
Organization

March, 18 2013
_____
Date

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

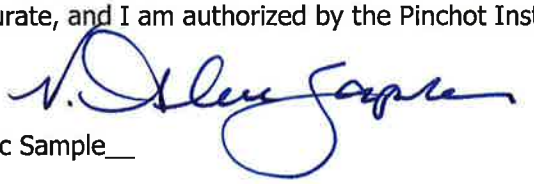
I, V. Alaric Sample, President (Name, Title), as a representative of the Pinchot Institute for Conservation (Organization Name) and a Partner in Reconciling Forest Certification Pathways and Sustainability Criteria for the International Trade in Wood Biomass for Energy (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the Pinchot Institute for Conservation(Organization Name) to sign this agreement.

Signed: 

_V. Alaric Sample__
Name

__President_____
Title

__Pinchot Institute for Conservation_____
Organization

__3/18/13_____
Date

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

David J. Refkin GreenPath Sustainability

I, President (Name, Title), as a representative of Consultants (Organization Name) and a Partner in * See Below (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by GreenPath Sustainability Consultants (Organization Name) to sign this agreement.

Signed:

David J Refkin
Name

President
Title

GreenPath Sustainability Consultants
Organization

3/18/13
Date

* Reconciling Forest Certification Pathways and Sustainability Criteria for the International Trade in Wood Biomass for Energy.

SFI Inc. Conservation & Community Partnerships Grant Program Request for Proposals
Directions and Grant Application for 2013 Grant Projects

Grant Application

Lead Organization Name and Address	U.S. Endowment for Forests and Communities, Inc.
Name, phone and email for Project Director	Peter Stangel, Ph.D.; peter@usendowment.org; 404-915-2763
Lead Organizational Mission Statement (25 words or less)	The Endowment works collaboratively with partners in the public and private sectors to advance systemic, transformative and sustainable change for the health and vitality of the nation's working forests and forest-reliant communities.
Lead Organization Annual Operating Budget	$9 million
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Larry Selzer, President & CEO, The Conservation Fund; lselzer@conservationfund.org; 703-535-6300. T. Bently Wigley, Ph.D., NCASI, Wigley@clemson.edu; 864-656-0840.

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
U.S. Endowment for Forestry and Communities	A National Approach for Protecting Forested Watersheds – Engaging the Water Community and Water Utilities in Payment for Watershed Service Projects	$60,000 ($20,000/yr. for 3 years)	$450,000	Forested watersheds provide drinking water for two of three Americans; protecting them is essential. Generating revenue for forest landowners for the water services their land provides is a sustainable approach for protecting and improving	This proposal addresses the following Objectives: 3: Protection and maintenance of water resources 1: Forest management planning; 2: Forest productivity; 8: Landowner outreach; 10: Adherence to BMP's 11: Biological diversity.

				management on forested watersheds. This project focuses on generating water utility support for watershed conservation on SFI Certified lands.	Also, this proposal supports "Indicator 17.4 for conservation of managed forests through voluntary market-based incentive programs such as current-use taxation programs, Forest Legacy Program or conservation easements."

Project Partners

Confirmed Project Partners (organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number,Address)	Summary Qualifications and Experience (150 words or less)
The Cadmus Group, Inc.	Tracy Mehan, Principal	The Cadmus Group, Inc. Arlington, VA Tracy.mehan@cadmusgroup.com	Mehan was Assistant Administrator for Water at EPA (2001-2003); Environmental Stewardship Counselor to the 2004 G-8 Summit Planning Organization (2004); director of the Michigan Office of the Great Lakes (1993-2001); Associate Deputy Administrator of EPA in 1992; director of the Missouri Department of Natural Resources (1989 – 1992).
The Trust for Public Land	Matthew Zieper, National Research Director	The Trust for Public Land 10 Milk Street, 8th Floor Boston, MA 02108 617/367-6200 x532	The Trust for Public Land has conducted hundreds of campaigns for local ballot issues, with a success rate of greater than 70%. They estimate they have helped raise billions of dollars for conservation through this mechanism.

This project is just beginning. Rather than "preselecting" SFI Program Participant and SFI Implementation Committee partners, we would prefer to work with SFI to identify which would be most appropriate for a watershed protection effort. This will involve identifying Program Participants and Implementation Committee members who own land that serves as the watershed for an urban area, then working with the appropriate utility to engage them. We would very much appreciate the opportunity to work with SFI in the identification of these groups. Local land trusts and others will also be involved in specific campaigns. These groups, once identified, will be required to sign the SFI Communication Agreement.			

Project Details

Introductory Narrative

The U.S.D.A. Forest Service estimates that about two-thirds of our Nation's freshwater resources originate in forests. Protecting these forest resources and the water they provide is a priority for our health, national defense, economy, and environment. Increasing evidence suggests that a healthy, forested watershed reduces water treatment and storage costs. This makes sense—the cleaner the water is coming from a forest, the less expensive it is to treat for impurities and the less likely it is to contain lots of sediment that will eventually fill-in reservoirs. Research by The Trust for Public Land and the American Water Works Association suggests that for each 10% loss in forest cover (below 70% total forest cover), treatment and storage costs increase by about 20%. Because protecting and maintaining the health of forested watersheds is less expensive than building water treatment and storage facilities, it is most cost-effective for a community to maintain their watershed in a healthy, forested state.

Most forest landowners would readily agree with this concept and approach. Most would suggest, however, that they should be compensated in some way for protecting and maintaining the health of the watershed they manage—what is popularly referred to as "payment for watershed services." The purpose of this project is to proactively engage a key constituency in this process: the water community and individual water utilities. Water utilities have an important say in how water resources are managed and what fees are charged for this purpose. Water utilities have traditionally viewed themselves as having responsibility only for delivering water from a reservoir or storage facility to the customer's tap. This view is slowly changing, however, as degradation of watersheds due to wildfire, development, and other causes, is severely affecting both water quality and quantity. Progressive utilities now realize that their responsibilities must include watershed management, and that financial investment in those watersheds is cost-effective relative to other options. This is generally known as source water protection and management. The challenge is how to engage water utilities, which are comprised largely of engineers, in forest health and watershed management. More specifically, the key question is, How do local communities generate the funding necessary to protect and manage their watersheds?

In April of 2011, the U.S. Endowment for Forestry and Communities (the Endowment) convened forest landowners (Plum Creek, Weyerhaeuser, Lyme Timber, etc.), water experts, and the donor community to develop a plan to accelerate payment for watershed services approaches. A top recommendation from that

convening was to engage the water community and individual water utilities on a more systematic basis. To that end, the Endowment engaged the services of Tracy Mehan, of The Cadmus Group, in March of 2013 to lead this effort.

Mehan has extensive experience both with source water protection (he is a former Assistant Administrator for Water with the USEPA) and the water community and individual utilities. His colleague at Cadmus, Chi Ho Sham, is the co-lead author on the *Source Water Protection Vision and Roadmap*, which was published by The Water Research Foundation on behalf of the water utility community.

Mehan's goal is to work directly with the water community and individual utilities to better understand what will be needed to help them become more active in watershed protection and management. Early feedback suggests that key roadblocks include a lack of knowledge of forestry and watershed management issues (most utilities are comprised of engineers) and unfamiliarity with financial mechanisms that could be used to provide support to owners of forested watersheds to compensate them for protecting and better managing their lands. The specific focus of this proposal will be to generate projects for SFI Certified lands.

We seek to engage SFI in this project and to also secure a portion of the funding for Mehan's position. As the leader in sustainable forestry activities, SFI and its program participants are well-versed both in the technical issues associated with forest and watershed management, and with the need for financial resources to compensate landowners for these services.

We ask that SFI work with us to identify project partners with forest holdings that include watersheds for medium to large urban areas that would be well-suited for payment for watershed service type projects. We would then seek to engage the water utilities in those areas, and the communities themselves, in dialogue about the benefits of protecting and improving management of those watersheds. Ultimately, we seek to help these communities develop a financial instrument that will provide revenue streams to landowners for protection and management activities. Success for this endeavor would be to facilitate one or more payment for watershed service projects for SFI Project Partners, and also make significant in-roads within the water community with regard to the importance of water utilities engaging in watershed management.

The Endowment has already had success with a payment for watershed service project. Through a partnership with the Natural Resources Conservation Service (NRCS), the Endowment funded the Conservation Trust for North Carolina, which led a successful effort to establish a watershed protection fee in Raleigh. This fee, which costs homeowners on average about 40 cents/month, generates about $1.8 million annually for watershed protection efforts—this money directly benefits forest landowners in the form of payments for easements or restoration and management activities. The Endowment has compiled a list of nearly two dozen similar efforts around the country. Each is unique, but all result in payments to landowners for working forest protection and management services. Payments for watershed services work—now we just have to stimulate projects in more areas.

The Endowment is working with The Trust for Public Land as our key partner in development of financial instruments, which might include extra fees on monthly water bills, or the very popular conservation ballot measures. During the 2012 elections, 81% of these measures were passed by voters, generating an estimated $787 million for land conservation activities. Of all the factors that motivate voters to approve these measures, water and concern for water supplies is consistently the most important factor. Water therefore becomes an important "proxy" for working forest conservation.

We also think this project has great value because water offers perhaps the best opportunity for the public—particularly those in urban areas-- to connect with and understand the importance of working forests. For city-dwellers, working forests may seen a world away—until they turn on their tap. Urban populations are increasingly disconnected from the resources that are essential for their healthy and well-being. Water may well be the most important connection they have with nature. Properly marketed, water becomes this daily link. This project can help connect well-managed, SFI forests with the bulk of our population that dwells in cities and towns.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*

SFI is a critical partner in this process. SFI members own and manage and procure wood from important watersheds around the country. Through participation in SFI, landowners have demonstrated a commitment to scientifically-credible forest and natural resource management activities. Thus, it should not be difficult to convince the water community and water utilities that SFI certified forests are worthy of protection and compensation for management practices. We think that the SFI Standards will be particularly appealing to engineers, because of the scientific basis with which the Standards have been developed. SFI certification also provides a standard that can be recommended to landowners who are not yet part of the certification process.

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*

As mentioned above, we invite SFI participation in identification of SFI Project Partners. Thus, SFI will be truly engaged in the project as we go forward. Providing financial support will make SFI part of a team that now includes the Endowment, the Weyerhaeuser Family Foundation, and the American Water Works Association (AWWA). We are actively seeking other funding partners. Participating in this project would bring SFI great exposure with the water community, and also help SFI better understand the challenges the water community faces in addressing future challenges. AWWA is the trade organization that represents the water community and utility industry; they are very proactive in promoting this effort through press-releases and activities at their numerous professional meetings. We are also working with the Association of State Drinking Water Administrators, the Source Water Collaborative, and many others, all of whom would be exposed to SFI and its members. The USDA Forest Service and Natural Resources Conservation Service are engaged as partners; Under Secretary Harris Herman is particularly interested in water issues and is regularly briefed on our progress.

Having SFI as a partner would lend credibility to our efforts. In turn, we can provide great exposure for SFI to the water community and those with an interest in water.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Increase support from the water community and individual water utilities for source water protection and management of forested watersheds	1) Meet with SFI to identify Project Partners that are interested in receiving payments to protect or better manage their working, forested watershed; 2) Meet with individual utilities receiving water from the Project Partners in #1 above and to identify what, if anything, prevents them from becoming engaged in source water protection and watershed management; 3) Identify funding streams (payments for watershed services, conservation ballot issues,	1) List of Project Partners (landowners) interested in receiving payments for forest protection and management; 2) List of corresponding water utilities and community partners willing to work to protect and better management their watersheds; 3) Review of appropriate funding mechanisms by The Trust for Public Land or other partner to determine	1) Willingness of identified landowners to consider payments for providing watershed services; 2) Personal meetings with water utilities willing to consider supporting financial programs to generate funding for watershed owners; 3) Identification of at least one water utility and forested watershed land owner (Project	$10,000/year; $30,000 total.	$20,000/year; $60,000 total from U.S. Endowment for Forestry and Communities; Weyerhaeuser Family Foundation; American Water Works Association (water utility trade group).

	etc.) that would generate revenue for forest land owners that would enable them to protect or better manage their watershed; 4) Make utilities aware of the SFI program and standards as one means to achieve a healthy watershed.	which financial mechanisms, if any, are appropriate. These funds could be used for protection via easements, or for management practices; 4) Promote the SFI standards to those forested watershed landowners who are not part of the program already.	Partner) interested in pursuing funding streams to enable watershed protection; 4) Acceptance by the water utility industry of the SFI standards for watershed protection goals.		
Goal 2:Secure at least one source water protection program for a mid- to large-watershed involving an SFI Project Partner	Once appropriate landowners/Project Partners and corresponding utilities have been identified, work with them and other partners to determine each community's willingness to pursue a funding mechanism to protect or better manage the watershed.	Depending on the community's interest, determine what funding mechanism is most appropriate—for example, a water rate hike that would be passed on to forest landowners, or a bond issue that would raise funds at the next election. This work will be undertaken by a group such as The Trust for Public Land, which has extensive experience in this arena.	The initial measure success will be community willingness to raise funds for watershed protection. The next measure will be a third-party, objective review the community's willingness to raise funds for watershed protection—voter preferences, etc. This would then set the stage for a campaign to implement the measure.	$10,000/year; $30,000 total.	$20,000/year; $60,000 total from U.S. Endowment for Forestry and Communities; Weyerhaeuser Family Foundation; American Water Works Association (water utility trade group).

Project Timeline

Tracy Mehan began work on March 1, 2013. We plan to retain him for at least three years to allow for project development. Because this proposal outlines a nationwide process, rather than implementation of a predetermined project, the time line is approximate and project activities are on-going. That is, we will continuously seek new projects and implementation opportunities. The proposed timeline is as follows:

Identify SFI Project Partners with watershed holdings that are well-suited for payment for watershed service efforts: May – July 2013
Identify corresponding utilities that draw water from these landholdings: August – September 2013
Meet with SFI Project Partners and corresponding utilities to determine opportunities: October 2013 – project completion in 2016.
Identify 2-5 potential project sites with appropriate landowners and water utilities: November – December 2013.
Engage The Trust for Public Land and other financial instrument partners to review these sites and their potential: January – March 2014
Select 1-2 sites for detailed review of payment for watershed service potential: March 2014
Implement community-based review of potential for financial instrument: April – June 2014
Undertake payment for watershed service campaign in one of these: July 2014 forward

Project Budget

All funds will be used to support Mehan as a consultant to this project. The Endowment will take no overhead or administrative fees.

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	$20,000 year/ $60,000 total Tracy Mehan has been retained to undertake this work on a consulting basis; all funds will support his activities. His travel is supported by the American Water Works Association.	$20,000 year/ $60,000 total. The Endowment has committed $50,000 annually. The Weyerhaeuser Family Foundation has committed $40,000 total. American Water Works Association has committed at least $12,000 annually for Tracy's travel.	
Operating Costs			
Research Activities			
Meetings			
Travel	0	0	
Education & Outreach			
Communications			
Total	**$20,000 per year/$60,000 total**	**$60,000 per year minimum/$180,000 total**	

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, *Peter Stangel*, Senior Vice President (Name, Title), as a representative of the *U.S. Endowment for Forests and Communities* (Organization Name) and a Partner in *A National Approach for Protecting Forested Watersheds – Engaging the Water Community and Water Utilities in Payment for Watershed Service Projects* (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the U.S. Endowment for Forestry and Communities (Organization Name) to sign this agreement.

Signed:

Peter W Stangel

Name

Senior Vice President
Title

U.S. Endowment for Forestry and Communities
Organization

March 18, 2013
Date

Lead Organization Name and Address	American Forest Foundation 1111 Nineteenth Street, Suite 780 Washington, DC 20036
Name, phone and email for Project Director	Paul Trianosky, Director Southern Forest Conservation Ptrianosky@forestfoundation.org 423-727-7270
Lead Organization Annual Operating Budget	7.6 Million
Lead Organizational Mission Statement (25 words or less)	The American Forest Foundation works on-the-ground with families, teachers, and elected officials to promote stewardship and protect our nation's forest heritage.
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1. The Nature Conservancy Jim Murrian, Executive Director Mississippi Field Office 405 Briarwood Drive, Suite 101 Jackson, MS 39206 jmurrian@tnc.org 601-713-3165 2. Bill Hubbard, US Department of Agricultural (USDA) Southern Region Extension Forester whubbard@uga.edu 706-542-7813

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
American Forest Foundation	Motivating Longleaf Conservation and Tree Farm Certification in Priority Ecological Areas Within an SFI Woodshed	$60,000	$110,000	Priority conservation areas within the ecologically significant Piney Woods landscape will be mapped, and overlaid against an SFI member woodshed. Landowners within this priority area exhibiting statistical similarity to landowners managing at a	Obj. 3, Indicator 4. Identification and *protection* of *non-forested wetlands*, including bogs, fens and marshes, and vernal pools of ecological significance. Performance *Measure* 4.1. *Program Participants* shall have *programs* to promote *biological diversity* at *stand-* and *landscape*-levels. Performance Measure 4.2. *Program Participants* shall apply knowledge gained through research, science, technology and field

				high level, will be offered the opportunity to acquire a management plan and become Tree Farm Certified.	experience to manage *wildlife habitat* and contribute to the *conservation* of *biological diversity*. Performance Measure 6.1. *Program Participants* shall identify *special sites* and manage them in a manner appropriate for their unique features. Objective 8. Landowner Outreach**:** To broaden the practice of *sustainable forestry* by forest landowners through *fiber sourcing programs*. Objective 9. Use of *Qualified Resource* and *Qualified Logging Professionals:* To broaden the practice of *sustainable forestry* by encouraging forest landowners to utilize the services of forest management and harvesting professionals. Performance Measure 10.1. *Program Participants* shall clearly define and implement *policies* to ensure that facility inventories and *fiber sourcing* activities do not compromise adherence to the *principles* of *sustainable forestry*. Performance Measure 17.1. *Program Participants* shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, *conservation* organizations, indigenous peoples and governments, community groups, sporting organizations, labor,

					universities, extension agencies, the *American Tree Farm System*® and/or other landowner cooperative programs to apply *principles* of sustainable forest management. Performance Measure 17.2. *Program Participants* shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.
The Nature Conservancy		$15,000 of total $60,000 requested	$5,000 of total $110,000 total project	TNC will be a primary contributor to the mapping component of this project	Already noted

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
American Forest Foundation	Paul Trianosky, Director of Southern Forest Conservation	Paul Trianosky Director of Southern Forest Conservation American Forest Foundation 199 Stonebridge Lane Mountain City, TN 37683 Ptrianosky@forestfoundation.org 423-727-7270	AFF is a national environmental conservation organization, with specific projects that focus on particular geographies. Two landscape projects currently underway provide focus for our efforts to develop new methods for reaching unengaged landowners, to advance their understanding and engagement in sustainable forestry. The Driftless project in Wisconsin is one, and the Piney Woods project in Mississippi - the focus of this grant request is the other. Both projects are intended to develop exportable methods to deepen engagement of landowners in sustainable forest management, while generating specific conservation outcomes that may

			be measured at a landscape scale. The project manager that will be leading the project, Paul Trianosky has over thirty years of experience in sustainable forestry, coalition-building, considerations for family forest owners, negotiation and conservation of forested ecosystems at multiple scales.
The Nature Conservancy, Mississippi	Jim Murrian, State Director	Jim Murrian Executive Director The Nature Conservancy 405 Briarwood Drive Suite 101 Jackson, MS 39206 jmurrian@tnc.org 601-713-3165	The mission of The Nature Conservancy (TNC) is to conserve the lands and waters on which all life depends. TNC has been working within the Piney Woods of Mississippi for over three decades doing planning, restoration and management of the longleaf system. TNC has led planning efforts such as the East Gulf Coastal Plan Conservation Plan that have helped us identify ecologically significant areas. The Mississippi Science and Stewardship staff has extensive GIS capability that will be adapted to this project.

Project Details

Introduction:

This project proposes outreach to family forestland owners to motivate certification under the American Tree Farm System, or alternatively to engage landowners who may not be ready for certification, on a pathway to sustainable forest management. It is unique in that the outreach will be conducted utilizing several methods that may never have previously been used in a coordinated fashion, and which together ensure both the certification relevance and ecological impact of the project:

- The geography affected by the project will be determined by a combination of ecological prioritizing and woodshed relevance to SFI. Ecological relevance is coarsely established by being within the Piney Woods Significant Geographic Area (Identified as the "DeSoto SGA" in America's Longleaf Conservation Plan), and further refined utilizing credible and proven ecological analyses at the landscape level. The resulting priority areas will then be compared against the woodshed boundary of a participating SFI partner to determine the core area of focus for this project.
- Landowners within this focal geography constitute the potential audience for outreach. These landowners will be further screened to determine the subset of landowners most likely to engage in sustainable forest management. This "segmenting" will follow practices developed and tested by AFF both in the Piney

Woods of Mississippi, as well as the Driftless Area of Wisconsin, which build on foundational research of the National Woodland Owners Survey, and further refined by the Sustaining Family Forest Initiative. Early testing by AFF and our partners indicate that micro-targeting of forest landowners can substantially increase the efficiency of outreach, and enhance the likelihood of subsequent forest management actions.

- Landowners who pass through the filters above will be contacted utilizing messages specifically designed to motivate action and follow-through, based on their interests. AFF will also utilize ATFS Inspecting Foresters to conduct field visits. This effort will potentially return a significantly higher percentage of landowners who opt to participate in certification, as compared to traditional, less-targeted approaches. Landowners not yet ready for certification could be led toward deepened engagement in forestry by being encouraged to join their local County Forestry Association, or by being offered MyLandPlan (an AFF online resource for forestland owners just beginning to engage). This process as a whole, assures that all participating landowners would be within a priority geographical area and thus contribute to landscape condition. Because the proposed Piney Woods area is a Significant Geographic Area within the range of longleaf pine, it should be expected that foresters would appropriately identify special areas, and potential longleaf restoration opportunities during the course of field visits and management planning.
- In addition to the landowner outreach noted above, this project will identify SFI certified "industrial" lands within the target geography, and inform SFI participating companies of the extent of ecological priority areas, and potential opportunities for longleaf restoration.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*
   The conservation impact of this project relates directly to SFI by increasing the potential future supply of ATFS certified wood (SFI Chain of Custody certification) within the woodshed. Because the proposed approach melds both woodshed geography and analysis of ecological values at the landscape scale, all properties brought within certification can be affirmatively described as adding to the overall ecological values of the landscape, particularly through protection of special sites. ATFS Inspecting Foresters will identify potential sites for longleaf restoration as part of the forest management planning on each property, the soils for which would typically limit the productive potential of alternative species in any case. The linkage of individual properties to landscape scale goals ensures that landowners will contribute to ecological benefits and landscape condition.

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*
   AFF has an active external communications program, ranging from a newly revised print magazine format, to press releases and an expanding presence on social media (Facebook and Twitter), as well as our website, online newsletters, our 95,000 Tree Farm participants and our network of thousands of volunteers. The breadth of this project and its linkage of conservation and certification would make it a topic of interest to a broad range of audiences. Additionally, the proposed project area is the site of AFF's "Piney Woods Project", where AFF is engaging local partners to sharpen outreach approaches to forest landowners, creating a multitude of opportunities for local publicity around this project, including newsletters from local County Forestry Associations, Mississippi Tree Farm System, and the newsletters and online publications of partners.

3. *In the table below, please list the goals for your project.*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:	Mapping	Maps completed resulting in identification of priority geographic areas and	Completion of mapping, building on best available ecological knowledge, utilizing GIS, soil maps, and relevant resources of	$15,000	$5,000

		intersection with SFI woodshed	partners organizations.		
Goal 2:	Identification of Landowners within priority area	Database completed, basic data populated with information necessary to distill landowner interests and predictive characteristics.	Identification of landowners within the priority area gleaned from location-specific lists of landowners by county, through analysis of database information	$10,000	$10,000
	Segmenting of the target audience	Statistically defined landowner segments generated from the geographical list	Successful delineation of landowner segments, based on predictive characteristics, Woodland Owner Survey results for Mississippi, and previous testing results in MS and WI	$10,000	$10,000
	Outreach and Follow-through	Outreach materials designed to motivate interest in Tree Farm, or County Forestry Associations.	Outreach performed to the target group. Positive response from minimum of 10% of landowners receiving outreach, with goal of 3% joining Tree Farm.	$25,000	$25,000

Project Timeline

Since timing of commencement of the grant period is not certain, this timeline will be expressed by quarters. Total project timeline is 18 months.

Quarter 1: Mapping started, based on ecological priority maps, soils conducive to longleaf restoration, T & E species, and additional GIS layers of conservation significance; Information acquired regarding Woodshed boundaries, and analysis conducted; Basic landowner data acquired for relevant counties
Quarter 2: Map layers overlain to determine priority areas for outreach; Landowner data narrowed to reflect priority geography; Landowner data parsed according to relevant demographic and micro-targeting characteristics
Quarter 3: Mailing pieces developed; Follow-through campaign worked out with local foresters and Tree Farm; Written materials and logistics developed
Quarter 4: Mailing campaign conducted during this timeframe, consisting of three mailings to priority landowners; Field activities initiated with participating foresters/ Tree Farm Inspectors
Quarter 5: Field level outreach conducted through this period; Tree Farm Inspections initiated where appropriate;
Quarter 6: Field outreach concluded, and final analysis of project accomplishments; Ensure that database information is managed and retained to facilitate future use.

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits			
Paul Trianosky	$19,000		$19,000 (from AFF budgeted salary)
Operating Costs			
Research Activities			

Meetings			
Travel	$1,000	$1,000 (from AFF budget)	
Education & Outreach	$15,000	$15,000 (from AFF budget or federal grant)	
Communications	$5,000	$5,000(from AFF budget or federal grant)	
Mapping activities	$15,000		$5,000 (from TNC)
Purchase of data	$5,000	$5,000 (from AFF budget or federal grant)	
Total	**$60,000**	**$26,000**	**$24,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Agreement to Public Communications

I, Tom Martin, Chief Executive Officer (Name, Title), as a representative of American Forest Foundation (Organization Name) and a Partner in Conservation & Community Partnerships Grant Program Request for Proposals (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by American Forest Foundation (Organization Name) to sign this agreement.

Signed:

Tom Martin
Chief Executive Officer
American Forest Foundation
March 18, 2013

March 18, 2013

Eli Weissman, Senior Director of Conservation Partnerships
Sustainable Forestry Initiative, Inc.
900 17th St. NW, Suite 700
Washington, DC 20006

Via E-mail: Eli.Weissman@sfiprogram.org

Dear Eli,

Thank you very much for considering our application to partner with SFI on a very important project that would advance the world's largest corporations to become more responsible and sustainable users of one of the world's most important forms of natural capital: forests. Our organizations could not be more aware that doing so underpins not only the world's economy but also the security of water, food, energy and health for all.

As you are likely already aware, CDP's forests program (previously Forest Footprint Disclosure) assists companies and their investors worldwide to address exposure to deforestation risks driven by demand for agricultural commodities that are responsible for most deforestation: timber products, palm oil, soy, cattle products and biofuels. With this in mind, the CDP forests program collects information driven by companies' operational, reputational and regulatory risks and opportunities, value creation and erosion which results from this exposure. 100 companies reported to the forest program in 2012, including 17 new ones. However, significant challenges lie ahead, as further expansion to 200 (2013 target) is expected to be constrained by a number of things, but most notably a lack of corporate knowledge around best practices.

In partnership with SFI, we seek to address this issue and advance SFI's Program (particularly certification) as well as corporate disclosure of deforestation risks.

Thank you again for this opportunity. Please do not hesitate to contact me if you have any questions or require more information.

Kind Regards,

Colin Harris
Business Development Manager, North America

Organization Information

CDP is an environmental non-profit that administers annual disclosure of Corporations' and Cities' environmental impacts, related management strategies, risks and opportunities (e.g., greenhouse gas emissions, water use, energy, renewable energy, impact on forests, Supply Chain management, etc.). This is performed on behalf of 722 investment managers representing $87 trillion assets.

The Forest Footprint Disclosure Project (FFD), pioneered by the Global Canopy Programme (GCP), merged with CDP to provide companies and investors with a single source of information for the interrelated issues of climate, water and forests. In February 2013 CDP started operating FFD, with GCP as the prime funder. Full integration is expected by February 2014.

The following proposal relates to the continued work of FFD as it now operates under CDP. SFI is already familiar with the work FFD has done, in particular with respect to responsible procurement, as evidenced by links on the SFI website including FFD's Annual Review, 2009 (linked here: http://www.sfiprogram.org/resources-media/external-reports/)

Lead Organization Name and Address	CDP c/o Rockefeller Philanthropy Advisors, Inc. 6 West 48th Street, 10th Floor New York, NY 10022
Name, phone and email for Project Director	Colin Harris, Business Development Manager, North America T: 212 378 2088 E: colin.harris@cdp.net
Lead Organizational Mission Statement (25 words or less)	CDP's mission is to put relevant environmental information at the heart of business, investment and policy-maker's decisions
Lead Organization Annual Operating Budget	$10,000,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1) Barbara Bramble, Senior Program Advisor; National Wildlife Federation; bramble@nwf.org; 703 438 6000 2) [TO BE CONFIRMED] Adam Kanzer, Managing Director & General Counsel; Domini Social Investments LLC; [Email TBD]; 212 343 9852

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Weyerhauser	Compilation and communication of Best Practice in production and procurement of timber and biomass as part of a research project to define best practice in commodities which are associated with deforestation	$30,000	$70,000	CDP would develop a 'library' of best practices that relate to sourcing commodities that lead to deforestation (i.e., timber products, palm oil, soy, cattle products and biofuels) in order to further corporate understanding, measurement of corporate environmental impact and ultimately disclosure thereof. These best practices will act as a roadmap for companies to improve their corporate policies and aspire to sector leadership. They would also enable CDP	On an organizational level, CDP and SFI are aligned with respect to the principles of Transparency (Principle 13 of SFI 2010-2014 Program; CDP drives corporate environmental disclosure for over 4,000 companies, globally, across its program areas) but also specific SFI 2010-2014 Objectives, particularly those related to Fiber Sourcing (i.e., Supply Chains) and Forest Land Management: Objective 7 – Efficient Use of Forest Resources Objective 10 – Adherence to Best Management Practices

				disclosure staff to address common barriers to public disclosure, including corporate lack of knowledge regarding the Principles of Sustainable Forestry as well as position CDP to develop a "Forests Scoring" methodology that would rank corporations on their "Forest Footprint" to inform investors, benchmark company managers and catalyze action to address deforestation	Objective 16 – Training and Education Objective 19 – Communications and Public Reporting

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Weyerhaeuser	Jim Stark Manager Sustainable Forests and Products, Weyerhaeuse	O: 253-924-3111 E:jim.stark@weyerhaeuser.com	Jim Stark has a company-wide role coordinating Weyerhaeuser's forest and manufacturing certification commitments. Jim works across all company businesses (cellulose fibers,

 Agreement to Pu Communications.	r Corporation	Address: 768 Mountain Ave., Wycoff, NJ 07481	paper, liquid packaging, wood products and log export) and all components of the supply chain from wood procurement to global sales. Jim also works closely with Cassie Phillips, Weyerhaeuser Company VP Sustainability, who leads the company certification strategy and participates in several North American and global forums that work on sustainable forestry, fiber procurement, legality and other key forest related issues.

Project Details

CDP's forests program (previously FFD) assists companies and their investors worldwide to address exposure to deforestation risks driven by demand for agricultural commodities that are responsible for most deforestation: timber products, palm oil, soy, cattle products and biofuels. With this in mind, the CDP forests program collects information driven by companies' operational, reputational and regulatory risks and opportunities, value creation and erosion which results from this exposure.

100 companies reported to the forest program in 2012, including 17 new ones. Significant challenges lie ahead, however, as further expansion to 200 (2013 target) is expected to be most constrained by: 1) lack of corporate knowledge of best practices; 2) lack of sector specific guidance from CDP; and 3) insufficient corporate commitment to manage the issues. For these reasons, CDP seeks to close the competency gap by developing best practice knowledge (i.e., case studies, training materials) that would relate to the following areas:

Best practice focus areas include:

Corporate Governance:

- Policy development & standards setting
- Internal governance and management of forestry-related commitments
- Assessing risk & targeting resources, choosing scope of operations
- Mitigation of consumption or impacts – offsetting, bio-banking etc.
- Accounting: metrics, measurement, IT and data management
- Transparency & public disclosure

Supply Chain Management/Sustainable Procurement

- Traceability & supply chain actors identification

- Managing change & performance improvement - Supplier and internal engagement/support/training
- Specifications, decision criteria and selection
- Managing relationships including strategic partnerships
- Case studies of best practices and creative examples

This project will further promote use of the SFI Certification and Standards, which is already promoted through CDP Forests public disclosure[1] as it will elaborate on best practices that are mirrored by the SFI 2010-2014 Program, such as efficient use of forest resources, management training and education, public transparency and communications.. Further, the CDP forest program promotes both the procurement of SFI-certified products by consuming companies and the attainment of SFI certification by forestry companies.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*

   Best practices that relate to SFI's interest in the topic of carbon and bioenergy will be a key focus area of the project, as the research will cover both timber and biomass/biofuels and will therefore contribute to:
   - considering the intersection of certified forests and carbon accounting in the context of the North American bioenergy sector; and
   - Examining the role of forest certification in addressing sustainability requirements of North American or European renewable energy policies.

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*

   We expect over 200 companies to participate in the CDP Forests Program in 2013 and the report will be disseminated to all of them as guidance for future policies. The Program is also backed by 184 investor signatories, representing around $13 trillion, and the research will provide a guide for engagement between investors and companies.

   In addition, CDP reaches a wide-audience through various media outreach, including over 22 million readers across major media outlets. CDP and our partners have received substantial attention from media including the New York Times, FT, Forbes, the Guardian, BBC News, Reuters, Responsible Investor, and many other publications.

   CDP's Communications Team manages various social and other media channels through which CDP commonly promotes its activities (listed below).

[1] The Forests program information request comprises 13 modules, including "Standards" which assesses third-party certification (such as SFI Standards). SFI certification is promoted as companies are scored upon their inclusion or exclusion of such certification.

1) CDP newsletters reach more than 16,000 people globally, with mailings every other month; 2) LinkedIn (1,051 followers); 3) on Twitter (5,359 followers); and 4) promotion via the CDP website (In 2012, the CDP website was viewed more than 580,000 times by more than 270,000 unique visitors, most of which are located in North America. Traffic on the CDP website was in excess of 375,000 page impressions over the 8 weeks of our peak report launching period.)

Should SFI award a grant to CDP, it would be important to discuss other possible channels and co-branding, budget allowing, with SFI, including:

- 'E-events' (i.e., Disclosure webinars, investor education and related outreach)
- Official communications to CDP disclosing companies and other partners
- Related publications (i.e., Annual Forests Report)

1. *In the table below, please list the goals for your project. For each goal, please describe the actions you will take to achieve your goal, the corresponding tangible outcomes*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Increase corporate disclosure to Forests program from 100 to 200 in 2013	Promote SFI certification and other best practices	Increased public disclosure	Number of companies reporting to CDP	$30,000	CDP Forest Program will contribute in-kind assistance amounting to approximately $15,000 of staff time. The project is also part-funded ($20,000) by the UK Government's Department for International Development as part of their ongoing support for CDP Forests.

Project Timeline

The Forest program's annual cycle begins with the information request sent in February each year, with responses due at the end of June. Therefore, CDP would prepare for the coming disclosure cycle in February 2014 with the following key steps in mind:

Dates	Activities
April – June, 2013	Initial research and information gathering
June - October, 2013	Best practice analysis, comparison and case study
October – December, 2013	Completion of research, compilation of best practice materials
December, 2013 – February, 2014	Communication & training to CDP staff, SFI and other stakeholders

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	$15,000 to support CDP staff time (1 Project Officer, 22% of total)		All covered by CDP
Operating Costs			
Research Activities	$40,000 (60%)	$20,000 from UK Government's Department for International Development	
Meetings	$2,000 (3%)		
Travel	$2,000 (3%)		
Education & Outreach	$5,000 (7.5%)		$1500 from Weyerhaeuser staff time
Communications	$3,000 (4.5%)		$500 from Weyerhaeuser staff time
Total	**$67,000**	**$20,000**	**$17,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

SFI Conservation Grant Application

Lead Organization Name and Address	**Saskatchewan Research Council (SRC)**
Name, phone and email for Project Director	Dr. Mark Johnston Tel: 306 933 8175 Email: johnston@src.sk.ca
Lead Organizational Mission Statement (25 words or less)	SRC's mission is to proudly deliver smart science solutions, with unparalleled service to clients and colleagues, that grow and strengthen our economy. (See http://www.src.sk.ca/About/Our-Company/Pages/Mission-Mandate-Vision-Values.aspx)
Lead Organization Annual Operating Budget	$78 million
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Diane Roddy, Roddy Resources, email: diane@roddyresources.ca; tel: (306) 922-3214 Jason Edwards, Canadian Forest Service, email: Jason.Edwards@NRCan-RNCan.gc.ca; tel: (780) 435-7369

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
LP Canada Ltd. - Swan Valley Forest Resources Division Weyerhaeuser Saskatchewan PEFC Canada PEFC International	Developing Guidance for Incorporating Climate Change Vulnerability and Adaptation Planning into Forest Certification Standards	$40,000	$109,500	Develop and test guidance for incorporating climate change vulnerability assessment and adaptation planning into certification standards. The project will include literature reviews,	The project deals with incorporating climate change vulnerability and adaptation into sustainable forest management. Therefore it primarily addresses the SFI objectives related to

1

				consultation with certification bodies and forest management practitioners, and a demonstration project. Results will be disseminated through publications, certification bodies' conferences and practitioner workshops.	Forest Land Management: Forest Management Planning, Forest Productivity, Protection and Maintenance of Water Resources and Conservation of Biological Diversity including Forests with Exceptional Conservation Value. Other SFI objectives would be addressed indirectly.

Project Partners

Confirmed Project Partners (list organization name only)*	**Primary Contact Name & Title**	**Complete Contact Information (Email, Phone Number, Mailing Address)**	**Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)**
LP Canada Ltd. – Swan Valley Forest Resources Division (LP)	Paul Leblanc, District Forester	Email: Paul.LeBlanc@LPCorp.com Tel: (204) 734-4102 Mail: LP Canada Ltd. Box 998 Swan River MB R0L 1Z0 Canada	Paul is directly responsible for LP Canada Ltd. – Swan Valley SFI certification as part of his job as District Forester. He is the lead person for SFI audits and responsible for maintaining their Environmental Management System. SRC has worked with LP Swan River in the past on incorporating climate change into its forest management plan.
Weyerhaeuser Saskatchewan (WS)	John Daisley, Planning Team Leader	Email: john.daisley@weyerhaeuser.com Tel: (306) 865-1709 Mail: Weyerhaeuser Saskatchewan	John is the Planning Coordinator for Saskatchewan Timberlands as well as the manager of their Environmental Management System. In the latter role, he works with Weyerhaeuser's Canadian Environmental Manager, prepares the SFI evidence package for the Pasquia Porcupine Forest Management Agreement, and facilitates

		Timberland Operations PO Box 40 Hudson Bay SK S0E 0Y0 Canada	the interaction with Weyerhaeuser's external auditors.
PEFC Canada (PEFC-C)	Paul Wooding, PEFC Canada National Secretary	Email: wooding@shaw.ca Tel: (604) 984-8094 Mail: PEFC Canada 4792 Tourney Road North Vancouver, BC V7K 2W5 Canada	Paul, as the PEFC Canada Secretary, is responsible for the administration of the organization including legal reporting requirements, maintaining compliance with PEFC Council requirements, developing and maintaining contracts with accredited certification bodies, and issuing PEFC logo use licenses to qualified organizations in Canada.
PEFC International (PEFC-I)	Rémi Sournia, Project Officer, Projects & Development Unit	Email: development@pefc.org Tel: +41 (0) 22 799 4540 Mail: PEFC Council Case Postale 636 CH-1215 Genève 15 Switzerland	Rémi is in the Projects and Development Unit of PEFC in Geneva. He oversees the review of proposals, and manages projects, under PEFC's 2013 Collaboration Fund. A proposal was submitted by SRC to the Collaboration Fund which, if successful, will provide the matching funding for the SFI application. Notification from PEFC is expected by May 1 2013.

Project Details

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds*
Goal 1:	Undertake a review of how existing certification systems have addressed climate change. Note that this does not refer to climate change mitigation (i.e. carbon management) which has been addressed in several certification systems.	Literature review and synthesis will provide an understanding of the treatment of climate change in existing standards	Completion of the review and synthesis	5,000	PEFC-I: 5,000

Goal 2:	Review existing guidance (e.g. workbooks, practitioner guides, etc.) for climate change vulnerability assessment and adaptation planning and summarize the characteristic of each that are relevant to incorporating guidance into a forest certification system.	Literature review and synthesis will provide an understanding of current guidance available for incorporating climate change vulnerability and adaptation planning into resource management	Completion of the review and synthesis	5,000	PEFC-I: 5,000
Goal 3:	Consult with practitioners and certification bodies as to what is practical in terms of dealing with complex climate change data and specialized expertise. The guidance for certification systems must be aimed at practical steps that can actually be carried out by those using the system. It also needs to explicitly recognize the uncertainty associated with future climate projections and the response of complex ecosystems, and the (possibly	Guidance indicating what is practical for modifying standards and applying them to forest certification	Completion and documentation of consultation	5,000	PEFC-I: 5,000 LP in-kind: 2,500 WS in-kind: 2,500

	limited) resources available for undertaking these assessments.				
Goal 4:	Based on the reviews and consultations, combined with past experience with forest industry and government forest managers, develop a conceptual approach and practical, detailed guidance on how vulnerability and adaptation can be incorporated into certification systems. The emphasis will be on practicality and how uncertainty in future conditions can be explicitly recognized. Close collaboration with representatives of certification organizations will be critical at this step. Note that the results will be designed to apply to all PEFC member certification systems in North America (CSA, SFI and ATFS)	Conceptual approach and guidance for certification bodies for incorporating climate change vulnerability assessment and adaptation planning into certification standards	Completion and documentation of guidance	10,000	PEFC-I: 9,500

Goal 5:	Review of conceptual approach and guidance by certification bodies and practitioners.	Modification of product in Goal 4 (if required) to ensure applicability and relevance of guidance	Final version of guidance document		PEFC-C: 2,500 LP: 2,500 WS: 2,500
Goal 6:	Final report and workshop. Also look for opportunities to present results at PEFC organizations' annual meetings.	Dissemination of results to certification bodies and practitioners	Completion of final report and workshop	10,000	PEFC-I: 10,000 PEFC-C: 2,500 LP: 2,500 WS: 2,500
Goal 7:	Undertake a demonstration project in which LP and WS walk through the guidance, apply the guidelines and report back on what worked and what didn't work. Modify the original guidance accordingly.	Application of the guidance to a real-world Sustainable Forest Management system and specific forest landscape.	Will indicate the applicability of the guidance as implemented in a modified standard	5,000	PEFC-I: 5,000 LP: 10,000 WS: 4,000

* LP, LP Canada Ltd., Swan Valley Forest Resources Division; WS, Weyerhaeuser Saskatchewan; PEFC-C, PEFC Canada; PEFC-I, PEFC International (will provide matching funds if PEFC proposal is successful)

Project Timeline

Year 1	Months after project signature											
	1	2	3	4	5	6	7	8	9	10	11	12
Review of current climate change treatment in certification systems	■	■										
Review existing guidance on vulnerability assessment and adaptation planning		■	■									
Consult with practitioners on user needs for guidance on vulnerability assessment and adaptation planning			■	■								
Develop conceptual approach and detailed guidance for incorporating vulnerability assessment and adaptation planning into certification standards				■	■	■	■	■	■			
Review of guidance by certification bodies and practitioners									■	■	■	
Final Report and workshop											■	■
Year 2	**Months after project signature**											
	13	14	15	16	17	18	19	20	21	22	23	24
Demonstration project with LP and WS. This will involve the application of a modified certification standard based on work done in the first year. Incorporate feedback into guidance as required based on the experience gained.	■	■	■	■	■	■	■	■	■	■	■	■

Note: WS will play a reduced role due to staff shortages and the need to complete the company's Forest Management Plan under provincial regulations. LP will be the lead partner for the demonstration project and will share results with WS. This should be straightforward since the forest management agreement areas of the two companies share a common border and the landscapes are very similar.

Project Budget

Expenditure	**Amount**	**Matching Funds*** PEFC International[1]	**In-Kind Contributions*** PEFC Canada	**In-Kind Contributions*** LP Canada Ltd. - Swan Valley	**In-Kind Contributions*** Weyerhaeuser Saskatchewan
Staff Salary and benefits	30,000[2]	32,300		5,000	5,000
Operating Costs					
Research Activities					
Meetings	1,000			5,000	5,000
Travel	3,000	2,200			
Education & Outreach	3,000	3,200		5,000	
Communications	3,000	1,800	5,000		
Total	**40,000**	**39,500**	**5,000**	**15,000**	**10,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Notes to budget table:

[1] Matching funds from PEFC International is contingent on the success of a PEFC Collaboration Fund Application submitted March 8 2013. Notification of results is expected by May 1 2013. These amounts are converted from Swiss francs shown in the original PEFC proposal.

[2] The majority of the funding is shown as staff time because the research in this project mainly involves literature reviews, consultation with stakeholders and writing. The applicant will use 100% of the budget.

Additional note: A communications agreement was not requested from PEFC International. They will be the source of matching funds (if the proposal to them is successful) and would be expected to undertake their own communications. In addition, the SFI application was identified as a source of matching funds for their application, so that the SFI project would be included in their communications and would know that SFI would also include them in communications.

Mapping SFI Certified Forest Area in North America

Proposal for SFI Inc. Conservation & Community Partnerships Grant Program

Submitted by GreenBlue
March 18, 2013

Organization Information

Lead Organization Name and Address	GreenBlue Institute 600 East Water Street, Suite C Charlottesville, VA 22902
Name, phone and email for Project Director	Katherine O'Dea 434.817.1424 x329 katherine.odea@greenblue.org
Lead Organizational Mission Statement (25 words or less)	GreenBlue® is a nonprofit that equips business with the science and resources to make products more sustainable. We're building a world where businesses are leaders for environmental stewardship and products are designed from the start with sustainability in mind.
Lead Organization Annual Operating Budget	$2.4 million
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	**Guy Gleysteen** Senior Vice President, Production Time Inc. guy_gleysteen@timeinc.com (212) 522.3559 **Matthew Realff, Ph.D.** Professor School of Chemical and Biomolecular Engineering Georgia Tech Georgia Tech, Atlanta, GA, 30332-0100 matthew.realff@chbe.gatech.edu 404-894-1834 office, 404-862-0440 mobile

Project Overview

Confirmed Project Partners

The confirmed project partner for the Mapping SFI project is Sappi Fine Paper. Sappi has extensive expertise in forest certification and will participate as advisors throughout the project and assist with stakeholder outreach.

Project Title
Mapping Sustainable Forest Initiative (SFI) Certified Forest Area in North America (herein, Mapping project)

Amount Requested
$38,000

Total Project Budget
$45,000

Brief Project Summary
GreenBlue will perform the necessary outreach, data collection, and develop Geographic Information System maps of SFI certified forest area in North America. These maps will be made available online including guidance documents. The goal of mapping SFI certified forest area is to increase SFI certification through transparency, education, and outreach.

Elements of SFI 2010-2014 Program addressed
The Mapping SFI project touches on many of the elements of the SFI 2010-2014 Standard, but most clearly address: Principle 11 - Training and Education; Principle 13 – Transparency; and, Objective 8 – Landowner Outreach.

Project Partner
Sappi Fine Paper
Laura Thompson, Director, Technical Marketing and Sustainable Development
laura.thompson@sappi.com
(207) 210-8317
255 State Street, Boston, Massachusetts, 02109

Dr. Laura Thompson and Sappi bring significant value as a project partner as an advisor and assisting in outreach: Dr. Thompson is a well-respected expert in her field, understands forest certification from the perspective of an international paper manufacturer, and from the perspective of the numerous companies and individuals she interfaces with along the supply chain including landowners, brand owners, and certification experts. Dr. Thompson understands the technical and environmental components of forest certification along with the ability to translate this information into a useful business context. Dr. Thompson has an extensive network that will be invaluable to the mapping project given the complexities in attaining certification. Dr. Thompson has participated in many projects with GreenBlue including the Forest Products Working Group. Dr. Thompson and Sappi were also part of the successful Maine SFI group certification pilot project which will be valuable background for this project.

Project Details

Maps are powerful tools that inspire and enable people to positively impact the future through a deeper, geographic understanding of the changing world around them. GreenBlue believes that mapping SFI certified forest area in North America has the potential for numerous positive impacts including the singular goal of getting more forests certified.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*

Mapping SFI certified forests in North America further informs the marketplace that SFI is a leader in sustainable forestry by supporting a project that reflects core components of sustainability as well as elements included in SFI's own Principles and Objectives of sustainable forestry – transparency, education, and outreach.

Transparency

Principle 13 in the SFI Standard states that transparency will "broaden the understanding of forest certification". GreenBlue proposes mapping forest area to the level of percentage certified forest area by county, which is a level of detail currently unavailable in the marketplace for any certification system. Mapping to this level of detail is a significant step towards more transparent forest certification data. Transparency encourages collaborative networks that can advance certification, reveals opportunities for innovation, and broadens the understanding of SFI forest certification.

Education

SFI is a leader in developing certification standards, resources, and tools to meet strong demand for certified forest products. However, as Principle 11 of the SFI 2010-2014 Standard states, education has important to role in maintaining and increasing the practice of sustainable forestry. A challenge to increasing the growth of certified forest area in North America that is often cited is a lack of understanding by stakeholders about the value of certification across the supply chain. Providing maps of certified forest area will encourage a better understanding, and in doing so, open a door for communicating the value and benefits of forest certification. Forest ownership is complex and a visual representation of forest management to the level proposed will have a more informative effect then current regional maps and statistics alone provide today.

Education can also lead to action. SFI's successful group certification pilot project in the state of Maine is a useful example of how education leads to action. The small and medium sized landowners, paper manufacturers, ATFS, and SFI partners that participated in the pilot project had a level of knowledge that the mapping project seeks to provide other stakeholders in the marketplace. A primary objective of the Mapping SFI project will to encourage this type of innovation through effective education of SFI's role in sustainable forest management.

Outreach
Transparency and education are fundamental to broadening the understanding of forest certification, but effective outreach that may be the most important method of informing the role of SFI. Data collection for the Mapping project will require significant outreach to landowners and state and federal agencies. This broad of a reach to stakeholders and landowners is an opportunity to communicate the value for forest certification. In preparation for this proposal, GreenBlue spoke with Minnesota DNR personnel that recently completed a similar exercise of collecting certification data. They informed GreenBlue that when stakeholders came to understand the value of mapping certified forest area they were comfortable sharing data and virtually all landowners participated in the MN DNR project. The outreach process for collecting data is, in itself, a valuable opportunity to inform stakeholders of the value of SFI forest certification.

To reiterate, mapping SFI certified forests encourages transparency, promotes education, and is a valuable opportunity for outreach. Together, these principles and objectives support the ultimate goal of the Mapping project and SFI which is to increase sustainably managed forests that "make a vital contribution to society by providing economic, environmental and social benefits indispensable to the quality of life".

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*

GreenBlue and our project partner plan to promote the outcomes of the SFI Mapping by providing the marketplace new tools, resources, and opportunities for collaboration based on the Mapping project outcomes.

Tools
The Mapping SFI project will be featured on GreenBlue's website and made available to the public with the specific target audience being stakeholders in the pulp and paper sector. GreenBlue manages a suite of tools (www.greenblue.org) and we plan to make the certified forest area maps available in the same manner: effective graphic design, interactive web experience, and in an accessible format that is science-based and business facing.

Resources
The GIS maps and guidance documents will be made available for download on GreenBlue's website along with our existing documents and resources. GreenBlue also plans to promote the maps as a resource for the marketplace through webinars, speaking engagements, press releases, monthly newsletters, and to our stakeholders including participants in the Sustainable Packaging Coalition and the Forest Products Working Group.

Industry Collaboration

GreenBlue currently manages two industry coalitions – the Sustainable Packaging Coalition (SPC) and the Forest Products Working Group (FPWG). Both coalitions bring together stakeholders across the packaging and forest products supply chain. Today, the SPC has over 200 member companies and the FPWG is a specialized working group within the pulp and paper sector. The Mapping SFI project is an excellent opportunity to promote collaboration within members of both coalitions. SPC and FPWG members will also be made aware of the Mapping project and will be updated on project progress regularly. Promoting the Mapping project within the coalitions will also provide an additional source of feedback on the project from companies that are in the target audience and have a vested interest in making more certified forest products available.

3. *In the table below, please list the goals for your project. For each goal, please describe the actions you will take to achieve your goal, the corresponding tangible outcomes (e.g. implementation guidance on a component of the SFI Standard, outreach and education to landowners, acres positively affected by the Project) for each goal, how you will measure your success in achieving each goal, and the portion of the requested grant funds that would be used to achieve the goal. Add rows as-needed to address all project goals.*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:	Landowner identification and proposal · Project kickoff · Identify target contacts · Draft data request doc · Review with advisors · Finalize data request doc	Contact database for data collection, proposal letter for landowners asking for certified forest area data	90%-100% agree to participate by providing their SFI cert forest data starting with states of VA, GA, WI, MN, ME, and OR.	$3800	In-kind advisory support from Sappi at $1000.
Goal 2:	Outreach and data collection · Collect target group contact info · Send proposal to target group · Outreach (email, phone, etc.)	Build successful relationships with organizations and	90%-100% of SFI cert forest area data collected	$9025	In-kind advisory and outreach support from

	· Confirm participation · Collect info from participants	individuals who will provide GreenBlue SFI certified forest area data			Sappi at $3000.
Goal 3:	Build database · Input to database · Obtain forest cover data · Validate and finalize	Organizing, formatting, and building a database of SFI cert forest area data including total forest area	Working database with capability to utilize ArcGIS to create maps illustrating SFI cert forest area in North America	$4560	
Goal 4:	Mapping SFI forests · Convert data to ESRI shapefiles · Produce maps · Review with advisors · Finalize	ArcGIS based maps of SFI forest in North America	Effective visual representation of SFI certified forests as compared to total forest area	$4750	In-kind advisory support from Sappi at $1000.
Goal 5:	Analysis and reporting · Analyze data · Develop report · Review with advisors · Update project participants	Summary report that illustrates key findings from mapping project that can be used effectively in marketing plan.	# of attendees on two webinars, # of reports downloaded from website, # live speaking engagements, mentions in target media.	$5700	In-kind advisory support from Sappi at $1000.
Goal 6:	Web-based resource · Develop web resource · Review with advisors	Maps of SFI certified forest area	Same as above also includes	$5700	In-kind advisory support

	· Finalize · Public release	available online with supporting guidance documents.	website visits, website features in target media, and positive survey response		from Sappi at $1000.

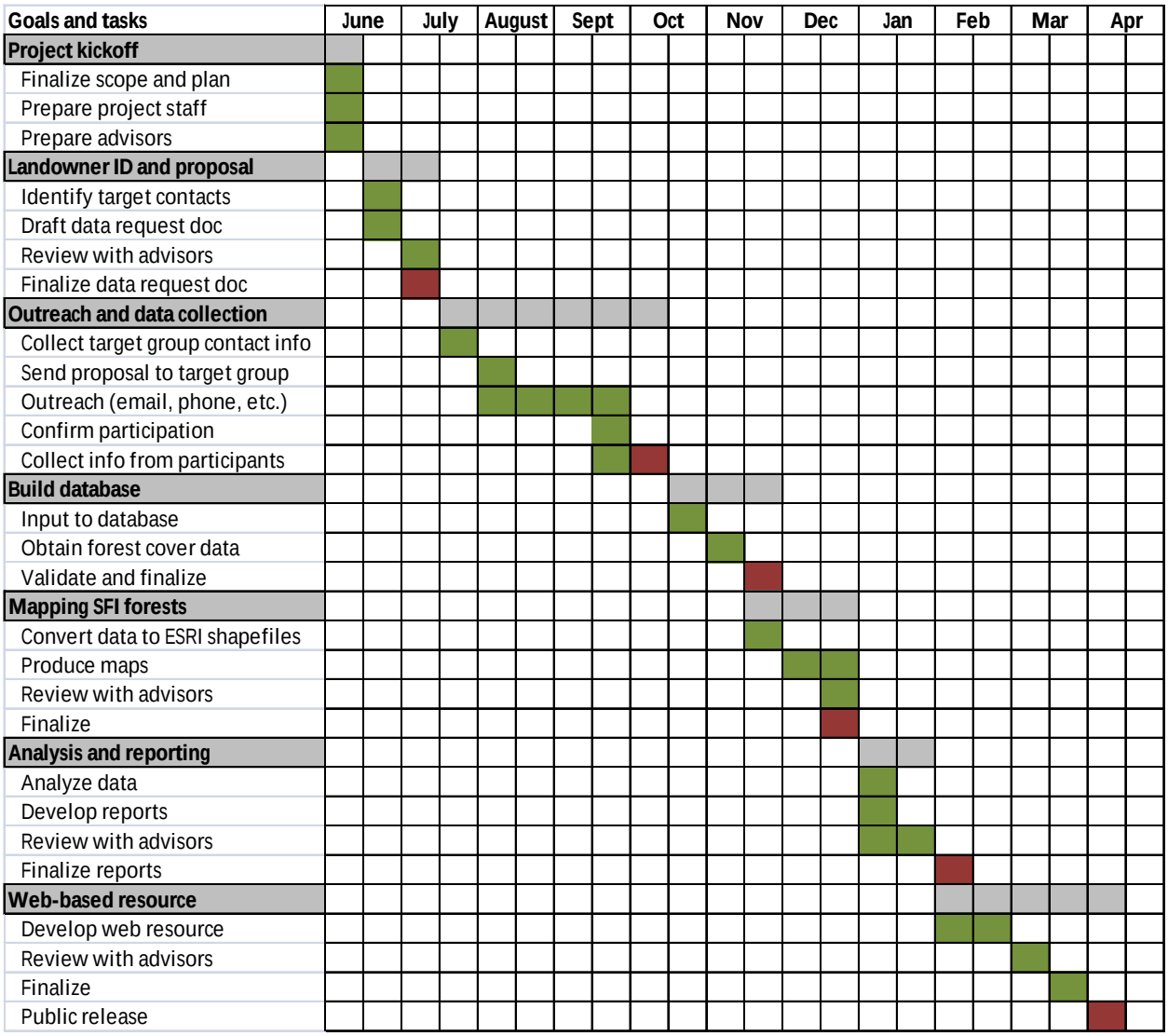
Project Timeline

Total project time to completion is estimated to be approximately 10 months assuming a start date of June 1, 2013.

Goal and Task	Start date	End date
Project kickoff	June 3, 2013	June 12, 2013
Goal 1: Landowner ID and proposal	June 13, 2013	July 15, 2013
Goal 2: Relationship building	July 16, 2013	Oct. 15, 2013
Goal 3: Build database	Oct. 16, 2013	Nov. 31, 2013
Goal 4: Mapping SFI Forests	Nov. 15, 2013	Dec. 31, 2013
Goal 5: Analysis and reporting	Jan. 2, 2014	Feb. 1, 2014
Goal 6: Web-based resource	Feb. 2, 2014	April 7, 2014

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits			
Program Director	$2,300		$7000
Program Manager	$9,500		
Project Associates	$21,700		
Operating Costs			
Research Activities	$1,000		
Meetings			
Travel			
Education & Outreach			
Communications	$3,500		
Total	**$38,000**		**$7000**


Goals and tasks
June
July
August
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Apr
Project kickoff
Finalize scope and plan
Prepare project staff
Prepare advisors
Landowner ID and proposal
Identify target contacts
Draft data request doc
Review with advisors
Finalize data request doc
Outreach and data collection
Collect target group contact info
Send proposal to target group
Outreach (email, phone, etc.)
Confirm participation
Collect info from participants
Build database
Input to database
Obtain forest cover data
Validate and finalize
Mapping SFI forests
Convert data to ESRI shapefiles
Produce maps
Review with advisors
Finalize
Analysis and reporting
Analyze data
Develop reports
Review with advisors
Finalize reports
Web-based resource
Develop web resource
Review with advisors
Finalize
Public release

Lead Organization Name and Address	American Bird Conservancy (ABC)
Name, phone and email for Project Director	Andrew Rothman, Migratory Bird Program Director, 540-253-5780, arothman@abcbirds.org
Lead Organizational Mission Statement (25 words or less)	Conservation of wild birds and their habitats in the Western Hemisphere.
Lead Organization Annual Operating Budget	$7,000,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Dr. Todd Fearer, Appalachian Mountain Joint Venture, tfearer@abc.org, 540-231-9519 Dr. David Buehler, University of Tennessee, dbuehler@utk.edu, 865- 974-7126

Project Overview

Project Title: **Monitoring and Evaluating Golden-winged Warbler and Cerulean Warbler Response to Breeding Habitat Management created using newly created Forestland BMPs**

Confirmed Project Partners: American Bird Conservancy, Inc.; Indiana University of Pennsylvania; U.S.F.S. Northern Research Station; Forest Investment Associates.

Prospective Project Partners: PA Dept. Conservation of Natural Resources Bureau of Forestry (SFI Program Participants [not certified]); Hancock Timber Management; Kane Hardwood, a Collins Pine Company; U.S.F.S. Allegheny National Forest.

Amount Requested: $69,000

Total Project Budget: $260,700

Brief Project Summary: Recently, based on research conducted across the Appalachian Mountains, forest management guidelines have been developed for two forest-dependent migratory songbirds of very high conservation priority. We are now faced with the challenges of large-scale implementation of habitat management that is necessary for recovery of these two species. An effective monitoring and evaluation program is needed to accompany forest management associated with widespread BMP implementation. This project will evaluate the efficacy of these BMPs where implemented on several partners' lands across Pennsylvania.

Elements of the SFI 2010-2014 Program addressed by Project: The research proposed here will directly meet multiple objectives of the SFI 2010-2014 Standard: specifically, Objective 4: "Conservation of Biological Diversity including Forests with Exceptional Conservation Value"; Objective 11: "Conservation of Biological Diversity, Biodiversity Hotspots and High-Biodiversity Wilderness Areas"; Objective 15: "Supporting forestry research, science, and technology"; Objective 16: Training and Education"; and Objective 18 : "Public Land Management Responsibilities".

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Indiana University of PA	Dr. Jeff Larkin, Professor of Ecology	larkin@iup.edu, 724-357-7808,	Cerulean Warbler Tech. Group, coauthored BMPs; Golden-winged Warbler Working Group, developed and published BMPs for MD, PA;
U.S.F.S. Northern Research Station	Dr. Scott Stoleson, Research Wildlife Biologist	sstoleson@fs.fed.us, 814-563-1040, PO Box 267, Irvine, PA 16329	Cerulean Warbler Tech. Group, coauthored BMPs, 34 yrs experience in applied avian ecology research.
Forest Investment Associates	Jeff Kochel, Northern Operations Manager	jkochel@forestinvest.com, 814-887-5238 PO Box 1474, 312 West Main Street Smethport, PA 16749	35 yrs experience in forest management, previously was Unit Forester for International Paper's Allegheny Timberlands division; PA-SFI Implementation Committee member

Project Details

The Golden-winged and Cerulean Warblers are two of the most critically threatened, non-federally listed vertebrates in eastern North America (Hamel 2004, Buehler et al 2007). These species have become rare and patchily distributed in their breeding ranges, and many populations are in danger of dying out before effective conservation measures can take place. In 2000, a petition was filed to list the Cerulean Warbler as "Threatened" under the Federal Endangered Species Act; that petition was denied due to "lack of supporting data". The Golden-winged Warbler was petitioned to be listed in 2010. The U.S. Fish and Wildlife Service will be reviewing whether the Golden-winged Warbler petition has substantial merit in the near future. Regardless of the outcome, the implementation of management prescriptions that create or maintain breeding habitat for either Golden-winged or Cerulean Warblers is clearly a high conservation priority at the continental scale.

Recently, guidelines for managing breeding habitat were developed for both the Golden-winged and Cerulean Warbler, based on extensive research across their Appalachian Mountain breeding ranges. These guidelines remain untested, however. Monitoring the response of these species to targeted habitat management will allow for 1) the evaluation of guideline effectiveness, 2) provide data necessary to make necessary modifications to existing guidelines via adaptive management, and 3) help to inform SFI and its partners on taking active roles in the conservation

of these focal species. Herein, we propose a plan to monitor and evaluate Golden-winged and Cerulean Warbler response to timber harvests guided by the recently developed *Golden-winged Warbler Habitat Best Management Practices for Forestlands in Pennsylvania and Maryland* (Bakermans et al. 2012) and *Cerulean Warbler Management Guidelines for Enhancing Breeding Habitat in Appalachian Hardwood Forests* (Wood et al. 2013).

We will partner with public and private industrial land managers within the focal areas designated for each species in northern Pennsylvania (figure below) to cooperatively evaluate and refine guidelines for creating habitat for these two species through operational, product-driven forestry.

The **strength of the proposed project** is that it will provide the synergy necessary to successfully monitor and evaluate on-the-ground management for Golden-winged and Cerulean Warblers in Pennsylvania. It also will provide information necessary to *recover and manage species or guilds of conservation concern*, identified as high priority in state Wildlife Action Plans (WAP). Additionally, the two co-PIs listed on this proposal have been leaders in the development of the research and writing that resulted in the Golden-winged and Cerulean Warbler Forestland BMPs. Both co-PI's have extensive experience working cooperatively with private and public land managers in an effort to harvest forest resources in ways that are economically realistic and promote the sustainability of forest dependent wildlife.

Goal and Methods

We will collect basic demographic and habitat use data on breeding Golden-winged and Cerulean Warbler across a set of stands created by public and industry partners using the Golden-winged and Cerulean Warbler Habitat Guidelines. First, we will monitor Golden-winged and Cerulean Warbler demographics (density) in unharvested stands (year 1) to obtain pre-treatment baselines for each stand. We then intend to monitor these same stands (density) for 3 years post-harvest. Ultimately, our monitoring protocol will provide data to reliably evaluate the effectiveness of these breeding habitat guidelines. Additionally, such information will allow biologists, land managers, and foresters to modify habitat prescriptions using a science-based adaptive management framework.

Monitoring:

We anticipate intensively studying approximately ≥20 timber harvest sites in each state. Timber harvest sites will be the result of silvicultural prescriptions described in the *Golden-winged Warbler Habitat Best Management Practices for Forestlands in Pennsylvania and Maryland* (Bakermans et al. 2012) and *Cerulean Warbler Management Guidelines for Enhancing Breeding Habitat in Appalachian Hardwood Forests (*Wood et al. 2013*).*

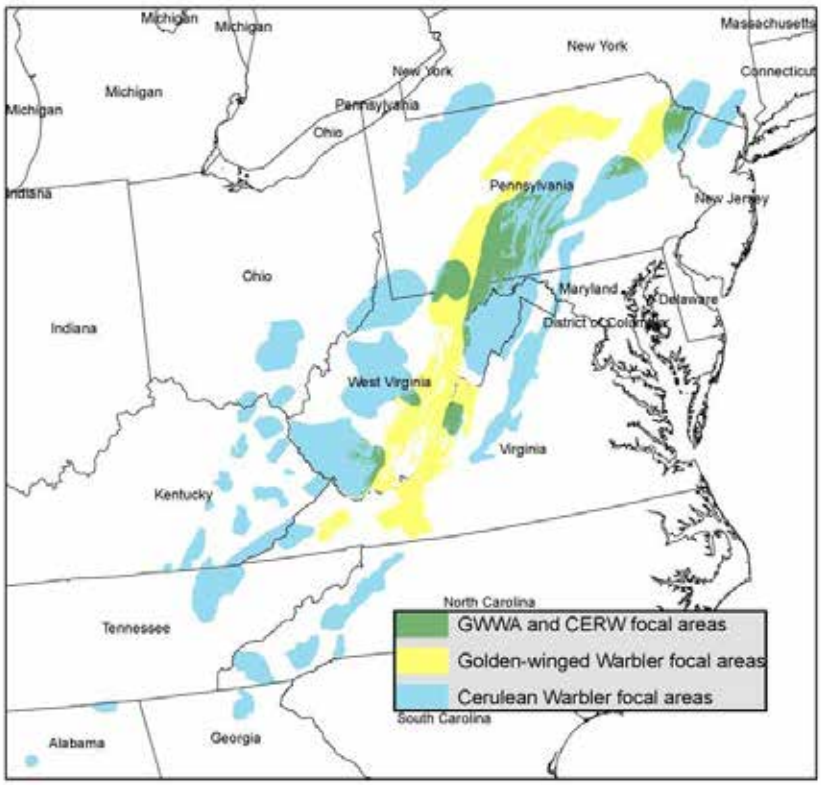
The following will be conducted annually in Years 1-2:

1) *Density*: Golden-winged and Cerulean Warblers and other focal songbird species will be monitored by a set of point counts. We will use a distance-based point count method (modified from Gregory et al. 2004) to quantify Cerulean and Golden-winged warbler

densities. All surveys will occur between sunrise and 1100 hours EST in favorable weather conditions (i.e., no heavy rain, high winds, or foggy conditions). Each point count will be visited 2 or 3 times per season with 4 – 7 days between surveys. Over a 10-minute period we will recorded each Cerulean Warbler, Golden-winged Warbler, Blue-winged Warbler, and Golden-winged x Blue-winged Warbler hybrids. We recorded the exact distance (with a rangefinder) from the point count center. The same point count locations will be monitored annually pre- and post-habitat manipulation.

2) *Habitat Evaluation*: A standardized basic habitat sampling protocol will be developed to measure habitat metrics identified as important to the focal bird species based on habitat relations quantified in previous studies. This protocol will sufficiently measure basic habitat conditions at every sampling point to evaluate response to habitat management.

Figure 1. Focal areas for Golden-winged Warblers and Cerulean Warblers in the Appalachian Mountain portion of their breeding ranges. Focal area delineation was conducted by the respective species working groups, and is based on expert opinion, Breeding Bird Survey data, and other field data.



1. The proposed project will test BMPs developed for two rare forest songbirds using operational silvicultural practices to determine whether, where, and how well the guidelines work. Working with landowners, we will modify guidelines as needed to develop and refine field-tested techniques for forest managers to actively participate in avian conservation through operational forestry.

2. We will monitor populations of the two focal bird species on all targeted sites before and after our landowner partners implement timber harvests in accordance with the recently-developed BMPs. We will determine what works, where, and why, and use that information to modify the proposed BMPs, if necessary. We will communicate the outcome of this study to fellow scientists, SFI, practicing foresters, and other land managers through a wide range of dissemination methods.

3. *In the table below, please list the goals for your project. For each goal, please describe the actions you will take to achieve your goal, the corresponding tangible outcomes (e.g. implementation guidance on a component of the SFI Standard, outreach and education to landowners, acres positively affected by the Project) for each goal, how you will measure your success in achieving each goal, and the portion of the requested grant funds that would be used to achieve the goal. Add rows as-needed to address all project goals.*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Assess efficacy of recently developed BMPs for 2 rare birds	Monitor birds within harvests on partner lands implemented following BMPs	Detail responses to BMPs by target spp.	Colonization of treatment sites, or increase in density within treated sites	$54,000	$114,700 submitted and pending Multi-State Wildlife Grant
Goal 2: Education and Outreach of project results	Prepare scientific papers, tours, presentations, demonstrations, add to existing training in sustainable forestry (see below)	Inform SFI Standards on biodiversity; inform forestry community on results	Number of foresters, managers reached through demos, talks, tours, SILVAH training sessions; Number of additional land managers willing to implement BMPs	$11,000	--

Project Timeline

Project Activity	2013	2014	2015
Identify sites on partners' lands; pre-cut data collection	X		
Post-cut bird monitoring		X	X
Habitat measures		X	X
Data analyses		X	X
Outreach through		X	X

demos, SILVAH			
Final reports, presentations, outreach			X

Project Budget

Please fill out the table below to illustrate the entire Project budget. SFI Inc. will not award any funds for organization overhead costs, which include but are not limited to, office rent or maintenance, utilities, temporary hires, etc. While some portion of the grant may be used to offset staff salary and benefits, the focus should be on on-the-ground activities.

You may modify this table to fit your needs, however please ensure your budget addresses the following components:

1. *Percent of budget allocated to each staff person working on the Project*
2. *Total Operating costs divided up by relevant topics such as travel, meetings, communications, education & outreach etc.*
3. *Identify any in-kind support allocated to this Project by <u>each</u> project partner*
4. *Identify any matching funds allocated to this Project by <u>each</u> project partner*

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits			IUP: $27,000 USFS-NRS:$20,000
Operating Costs			
Research Activities	54,000	$114,700 (pending Multi-state grant)	USFS-NRS: 12,000 yr
Meetings	--		USFS-NRS: 2,000
Travel	2,000		USFS-NRS: 3,000/yr
Education & Outreach	11,000		$3,000/yr USFS
Communications	2,000		$2,000 USFS
Total	**69,000**	**114,700**	**$77,000**

*list sources and amounts of any matching funds or in-kind contributions <u>for each project partner</u>

<u>Technology Transfer Plan</u>

Knowledge learned as a result of this study will be transferred to many audiences using multiple approaches:

<u>Scientific meetings</u>: The design and results of the study will be shared with scientific colleagues throughout the progress of the study. Specifically, we plan to share results from this study at meetings of SFI, the Society of American Foresters, the Ecological Society of America, and The Wildlife Society, and probably others.

Training sessions, workshops and field tours: Scientists at the Warren Forestry Sciences Laboratory offer a week-long training session in sustainable forestry (SILVAH) for practicing natural resource managers twice or more annually, primarily in PA but also semi-annually in WV, MD, and OH (ave. 90 participants/yr). These sessions are intended to help managers integrate our most recent research results directly into their daily practices. As results of this study emerge, they will be incorporated into the training session curriculum to maximize their utility to users. In addition, we will organize and present workshops for foresters in state and federal agencies, and conduct field tours for agencies and local/regional groups (e.g., SAF Plateau Chapter).

Publications: The results of this study will be published in a variety of outlets, to reach different audiences and user groups.

Decision-support tools: Scientists at the Warren Forestry Sciences Laboratory are actively involved with the development of two computerized decision support systems, SILVAH and NED, which are widely used by a variety of land managers in the Northeast. Positive outcomes to the proposed guidelines will result in their development and integration into both packages.

SFI Inc. Conservation & Community Partnerships Grant Program Request for Proposals
Grant Application for 2013

A critical review of habitat and BMP-related research to improve and promote bird biodiversity and habitat on forestry land in the Maritimes

Organization Information

Lead Organization Name and Address	Bird Studies Canada – Atlantic, 17 Waterfowl Lane, Sackville NB, E4L 3W7
Name, phone and email for Project Director	Becky Stewart, 506-364-5047, bstewart@birdscanada.org
Lead Organizational Mission Statement (25 words or less)	To advance the understanding, appreciation, and conservation of wild birds and their habitats.
Lead Organization Annual Operating Budget	6,000,000; www.birdscanada.org/download/2011-12audit.pdf; (CRA registered charity # 119024313RR0001)
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Dr. Phil Taylor, Acadia University, ptaylor@acadiau.ca, 902-585-1287 Dr, Andrew Horn, Dalhousie University, aghorn@dal.ca, 902-422-9139

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Bird Studies Canada, Environment Canada, NB Department of Natural Resources, JD Irving Ltd., Port Hawkesbury Paper	A critical review of habitat and BMP-related research to improve and promote bird biodiversity and habitat on forestry land in the Maritimes	$48,830 (over 2 years)	$100,350	We will collate and critically review available information for forest birds at risk to assist in the development of Maritimes-specific BMPs and foster stewardship in their planning and implementation. This project will fill a high-priority information gap and will ultimately improve and promote bird biodiversity and habitat on forestry lands.	Addresses Standard Objectives: Objective 4 Objective 11 Objective 14 Objective 15 Objective 18

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Bird Studies Canada	George Finney, President Bird Studies	gfinney@birdscanada.org, 519-586-3531, P.O. Box 160, Port Rowan, ON N0E 1M0	The mission of Bird Studies Canada is to advance the understanding, appreciation, and conservation of wild birds and

	Canada		their habitats, in Canada and elsewhere, through studies that engage the skills, enthusiasm, and support of its members, volunteers, and the interested public. Bird Studies Canada is a not-for-profit organization built on the enthusiastic contributions of thousands of volunteer Citizen Scientists. Data from Bird Studies Canada's volunteer surveys and targeted research projects are used to identify significant population changes and help direct conservation planning.
Environment Canada – Canadian Wildlife Service	Martin Raillard, A/ Regional Director	martin.raillard@ec.gc.ca, 506-364-5189, 17 Waterfowl Lane, Sackville NB, E4L 1G6	Environment Canada's Canadian Wildlife Service is responsible for the conservation of migratory bird populations and rare and threatened species in Canada under the *Migratory Birds Conservation Act* and the *Species at Risk Act* respectively. Environment Canada has developed Avoidance Guidelines to reduce risks to bird nests and eggs, and make proactive avoidance and mitigation decisions for any activities that might affect migratory bird species (http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=AB36A082-1).
New Brunswick Department of Natural Resources (NB DNR)	Steve Gordon, Manager, Habitat Section, Fish and Wildlife Branch	Steve.Gordon@gnb.ca, 506-453-7117 New Brunswick Department of Natural Resources, P.O. Box 6000 Fredericton, NB, E3B 5H1	There are 6 million hectares (ha) of productive forest land in New Brunswick, including 3 million ha of Crown land, 1.8 million ha of private land, and 1.2 million ha of industrial freehold and federal lands. NB DNR - Fish and Wildlife Branch's mandate is to manage the fish and wildlife resources of New Brunswick and is responsible for ensuring suitable habitat exists to support healthy wildlife populations throughout the province. This includes administering the Fish and Wildlife Act, the Crown Lands and Forests Act, and the Endangered Species Act.
JD Irving Ltd.	Blake Brunsdon, Chief Forester	brunsdon.blake@jdirving.com, 506-632-7777, Box 5777, 300 Union Street, Saint John, NB, E2L 4M3	Based out of St. John, New Brunswick, JDI has been operating in the Maritimes for over 125 years. JDI operates on 1.9 million SFI certified hectares in Nova Scotia and New Brunswick. JDI's mandate is to manage their operations so they products and services in an environmentally sustainable and socially responsible manner. In the Maritimes, JDI has provided in-kind support to the Maritimes Breeding Bird Atlas and has partnered with BSC on a number of initiatives.
Port Hawkesbury Paper	Andrea Coombs, Leader Sustainability and Outreach	andrea.Coombs@porthawkesburypaper.com 902-625-6264, P.O. Box 950, Port Hawkesbury Nova Scotia, B9A 1A1	Port Hawkesbury Paper (PHP) has operated in Cape Breton, Nova Scotia since 1962. Wood for the millcomes primarily from the seven eastern counties of Nova Scotia where PHP manages approximately 522,000 hectares of licensed Crown land. Port Hawkesbury Paper has been certified to FSC standards since 2008. As part of the company's commitments to FSC certification they are monitoring species at risk on their crown license lands and ensuring proper management of these lands for these

			species. Port Hawkesbury Paper has actively partnered with BSC Atlantic since 2002 in the monitoring of Bicknell's Thrush in the Cape Breton Highlands.

Additional Project Participants	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Acadian Timber (AT)	Jody Jenkins, Forest Planning Superintendent	jjenkins@AcadianTimber.com 365 Canada Road, Edmundston, NB E3V 1W2	AT Limited Partnership is the New Brunswick timberlands operations of Acadian Timber which also operates private timberlands in Maine. ATLP is a leading supplier of primary forest products in Eastern Canada and the Northeastern U.S. With almost 843,000 hectares of land under management in NB, Acadian is the second largest timberland operator in NB and Maine. Acadian owns and manages approximately 310,000 hectares of freehold timberlands in NB, and provides management services relating to approximately 533,000 hectares of Crown licensed timberlands. Acadian also owns and operates a forest nursery in Second Falls, NB. Acadian Timber managed lands have been certified to the SFI® and ISO 14001 EMS since 2000.
Nova Scotia Department of Natural Resources (NS DNR)	Mark Elderkin, Provincial Biologist (Species at Risk),	elderkmf@gov.ns.ca 902-679-6091 Wildlife Division, NS Department of Natural Resources, 136 Exhibition Street, Kentville, NS, B4N 4E5	The NS DNR works to build a better future for Nova Scotians through responsible natural resource management. The goals of the department are to achieve sound natural resources stewardship, conserve the diversity of Nova Scotia's natural environment, support Nova Scotia's economy through the sustainable development of natural resources and improve the quality of life in Nova Scotia. The mission if the Wildlife Division is to promote and implement the principles and ethics of conservation and sustainable use of wildlife populations, habitats and ecosystems in Nova Scotia.

Additional collaborators (consultation and provide expertise): Dr. Cindy Stacier (Dalhousie), Dr. Marc-Andre Villard (University of Moncton), Dr. Len Reitsma (Plymouth State University), Dr. Judith Scarl (Vermont Centre for Ecostudies)

Project Details

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.* **Project will engage multiple stakeholders and SFI Program participants to promote and improve biodiversity and wildlife habitat practices to meet SFI standards.**

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?* **Project will be promoted within Maritimes, to regulators and SFI Program participants, by engaging regulators and participants in the project directly as partners. Further the results and outcomes of the project will be made available to provincial forestry associations, as well as online and promoted through various meetings and presentations (e.g., presentation at NB and NS Foresters Associations, the Atlantic Society of Fish and Wildlife Biologists, NB Forestry Collaborative), as well as made available to other land managers, e.g., Nature Conservancy**

Canada. As well, results will be presented, and project promoted, at the annual SFI conference, online at www.birdscanada.org and in BSC's quarterly magazine BirdWatch Canada.

Project Summary

The proposed project will fill a critical information gap, identified by project partners, as a necessary first step in facilitating the development of stand- and landscape-level Beneficial Management Practices (BMPs) for "at risk" and high conservation priority forest birds in the Maritime provinces. We will collate available research on habitat preferences and existing BMP recommendations for "at risk" and high priority forest and critically review their application and feasibility, in light of Maritimes-specific species-habitat associations. By engaging forestry companies and regulators as project partners, we will foster stewardship for forest birds, as well as compliance with SFI standards, and provide a mechanism through which the forest management community can contribute and enhance the conservation of forest species at risk.

Project Rationale

During the past five years, several widespread, forest birds have been identified as "at risk" under Canada's Species At Risk Act (SARA). These include: Canada Warbler, Common Nighthawk, Eastern Wood-Pewee, Chimney Swift, Rusty Blackbird, Whip-poor-will and Wood Thrush. An additional, 24 forest birds (Table 1), have been identified as high conservation priority species through Environment Canada's Bird Conservation Region (BCR) Planning process. These at risk and high conservation forest birds differ from previously identified "at risk" species, like Piping Plover, in that they are relatively widespread and most of their nesting sites are unknown or change between years. For many, the location of their preferred habitat also changes over time, in response to changing forest age and composition. As such, managing for forest bird biodiversity and habitat necessitates a habitat-based, rather than site-specific, approach to ensure that the habitat needs of these forest species are met over time.

For forest birds, habitat modification, degradation and destruction may threaten their Maritimes populations and their chance of recovery. In NB and NS, forest harvesting practices often alter the structure and composition of forest stands and, in doing so, change the type and amount of habitat available to forest birds. However, each of the above-listed bird species occur on land managed for timber harvest, suggesting that they use habitat created through forestry practices so long as it meets their basic habitat requirements. Thus, managing the forest in a way that supports "at risk" forest bird habitat, could potentially play an important role in these species recovery in that identifying and implementing BMPs on land managed for timber harvest could benefit "at risk" and high conservation priority species. As well, because these species are federally listed under the SARA and/or are protected under the Migratory Bird Convention Act (MBCA), and given the commercial benefits to companies participating in forest certification programs that require companies to show a commitment to species at risk and wildlife habitat, forestry companies and private woodlot owners are keen to demonstrate that they are implementing BMPs for forest birds at risk.

Currently, there are many Maritimes-specific knowledge gaps, specifically related to forest species at risk responses to various harvesting and silviculture practices, that need to be addressed before BMPs can be identified or implemented. Key first steps are to assemble and critically evaluate the current, science-based information available for forest birds at risk and other high conservation priority species, related to: their habitat preferences, their use of and response to silviculture and harvesting practices; already-identified BMPs (or in use) in other districts and regions; and the applicability of this information in the Maritimes, given our current understanding of Maritimes species-habitat preferences (derived from the Maritimes Breeding Bird Atlas, a project previously supported by the SFI).

Because of their field of expertise and established working relationships with a number of stakeholders, including several SFI Program Participants, BSC is well placed to "fill" this information gap which will facilitate the future development and refinement of Maritimes-specific BMPs and support stewardship for forest birds on both public and private lands. Indeed, BSC has been approached by the NB Forest Collaborative, land trusts, other NGOs and industry for advice and assistance related to BMPs for forest species at risk and other high priority forest species. However, BSC cannot advise groups effectively without additional research, discussion and consensus amongst appropriate stakeholders. The proposed project will fill that informational gap and work with partners to create continuity across sectors in our approach to developing BMPs and stewardship for at risk forest birds and other high priority species.

Under the guidance of a project committee, that includes Bird Studies Canada, Maritimes forestry companies and provincial and federal wildlife agencies, Bird Studies Canada will collate, summarize and evaluate the current available information related to "at risk" and high conservation priority forest species habitat preferences, response to silviculture and harvesting practices, and already identified BMPs. This information will be compared with the species-habitat information derived from the second Maritimes Breeding Bird Atlas, as well as other local researchers (e.g., Dr. Marc-Andre Villard, Dr. Cindy Stacier) to assess its applicability on the Maritimes forested landscape. Additional knowledge gaps and research needs will be identified. The project results will be summarized in a final report as well as a shorter and easy-to-read communications document for wider dissemination amongst other SFI Program Participants, as well as potential participants and other interested stakeholders.

In the shorter term, project results will:

1) Provide a "go-to" document for NGO and regulatory agency partners when asked to provide guidance to stakeholders seeking additional information related to bird species responses to various silvicuture and harvesting practices;
2) Facilitate companies' further development and refinement of landscape and stand-level BMPs.

Over the longer term, project results will:

3) Improve management practices for "at risk" forest birds and promote bird biodiversity and habitat on the Maritimes landscape.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:To collate available research on species at risk and high conservation priority species habitat preferences, responses to silviculture and harvesting practices, and already recommended BMPs from other regions and areas.	1) Initial meeting with project partners to further develop project approach, secure buy-in and identify additional sources of information available to inform project (e.g., relevant internal reports etc… that can be shared with partners) 2) Extensive literature review (e.g., from peer-reviewed journals, reports, and experts) 3) Summarize all of the available information in a written report and database to be shared with project partners, and for use in subsequent project activities	1) Formation of a multi-partner project committee, made up of both regulators and SFI participants, to guide project. 2) Strengthen working relationship of multiple project partners facilitating across-sector collaboration and cooperation. 3) Full details of project work plan fleshed out by all partners. 4) Information for "at risk" and high conservation priority forest birds including: i) habitat preferences, ii) responses to harvesting/silviculture practices, and iii) already-identified BMPs	1) No. of partners engaged and participating in project; Target: 6. 2) No. of meetings with all project partners; Target: 2. 3) Project work plan produced and agreed upon by all partners. 4) No. of "at risk" and high conservation priority forest bird species for which information (described on left) is available for use; Target: 15 species (focus on species at risk and priority species for which populations and/or habitat are declining).	$ 22,400	$23,200

		collated, summarized, and available in a single database that can be accessed and used by all project partners for multiple purposes.			
Goal 2: Critically evaluate the information gathered (goal 1) to determine applicability to the Maritimes landscape.	4) Add Maritimes-specific habitat information to the database for use by project committee for their review and highlight similarities and dissimilarities (i.e., potential applicability of information from other regions) for partners 5) Work with partners to evaluate available information relative to Maritimes-specific habitat preferences (e.g., whether silviculture/harvesting practices used to promote or maintain habitat elsewhere are appropriate and feasible given species Maritimes-specific habitat preferences and status). 6) Identify potential information and recommendations that can be used as a basis for the development and refinement of landscape and stand-level BMPs. 7) Identify additional information gaps that require further research. 8) Produce project report and communications document. 9) Prepare presentation for further dissemination of results beyond project partners	5) Finalized database of broad-range and Maritimes-specific habitat preferences, responses to silviculture practices, BMPs implemented elsewhere and potential BMPs that could be implemented in the Maritimes for 7 species at risk and 8 high conservation priority forest species, complete and shared with project partners. 6) Final report and communications document summarizing key project results and outcomes provided to partners and other interested stakeholders. 7) BSC, SFI participants and regulators have information to provide guidance and assist in the future development and refinement of BMPs for "at risk" and high priority forest birds.	5) No. of "at risk" and high conservation priority forest bird species for which applicable BMPs are assessed for applicability in the Maritimes; Target: 15 species 6) No. of project partners participating in project meetings and critically reviewing information provided; Target: 6. 7) Report and communications document agreed upon by all project partners. 8) No. of potentially appropriate BMPs identified; Target 15 (1 per species). 9) No. of SFI Participants using project results to facilitate development and refinement of BMPs; Target: 3 partners. 10) No. of non-partners (other SFI Participants) requesting report. 11) No. of presentations; Target: 3.	$26,430	$27,120

Project Timeline

2 –year project, with goal 1, activities and outcomes completed in Year 1; and goal 2, activities and outcomes completed in year 2.

Project Budget

Expenditure	SFI Contribution	Matching Funds*	In-Kind Contributions*	TOTAL
Staff Salary and Benefits				
Project Coordination (4 mos/year x 2 years) including delivery of all project activities including coordinating meetings and research, collating information and developing database, writing project reports, communicating with partners, writing communications document and overseeing design and layout, project presentations	22,400	22,600	-	45,000
Partner Participation (6 partners estimated to contribute 2 days/year @ $500/day, for a total in-kind contribution of at least $2,000 per partner); Contributing Partners include: Environment Canada-Canadian Wildlife Service, NS Department of Natural Resources, NB Department of Natural Resources, Port Hawkesbury, J.D. Irving Ltd., Acadian Timber)	-	-	12,000	12,000
Operating Costs				
Research Activities (Research Assistant, for 2 mos/year x 2 years)	12,700	500	-	13,200
Meetings (3 meetings with all project partners at ~ $1,000 per meeting, for food, venue and travel support)	3,000	-	-	3,000
Travel (Travel for meetings with partners (forestry companies and NB and NS DNR) estimated at 6,000km x 0.45/km = $2,700; plus other potential SFI participants, estimated @ 3,000 km x 0.45/km = $1,350, e.g., NS Foresters Association; plus travel to annual SFI meeting, estimated at $2,700)	5,400	1,350	-	6,750
Communications - Design and layout of communications document (~ $4,000 FR and EN), Translation (~$ 2,000), Printing (~ $4000 FR and EN); estimates from Goose Lane Editions (www.gooselane.com)	5,230	4,770	-	10,000
Communications - phone and internet for coordinator ($100/mo x 8 months)	100	700	-	800
Office Space ($1,200/mo x 8 months) - Environment Canada, Canadian Wildlife Service	-	-	9,600	9,600
Total	**48,830**	**29,920**	**21,600**	**100,350**

- Please note that while we recognize SFI prefers funds only support a small portion of staff salary, preferring to support on-the-ground activities, in the case of the proposed project, project deliverables require dedicated staff time and expertise to conduct research, collate information, and critically review materials (without which the outcomes could not be successfully achieved).

Sources of Matching Funds:

Cash

Environment Canada – Habitat Stewardship Program: $29,920 (Year 1 - $15,200; Year 2 - $14,720)

In-kind

Environment Canada – Canadian Wildlife Service: $9,600 (office space) and $2,000 (staff time)
NB DNR: $2,000 (staff time)
NS DNR: $2,000 (staff time)
Port Hawkesbury: $2,000 (staff time)
J.D. Irving: $2,000 (staff time)
Acadian Timber: $2,000 (staff time)

Table 1. High conservation priority bird species as identified for the Atlantic Northern Forest Region (BCR 14), excluding species at risk. Focus of the current project will be on the 8 bolded species for which populations and/or habitat are believed to be in decline. Focus may change slightly depending on project partners' priorities (e.g., may prefer to focus on species representing a particular habitat type).

Species	*Environment Canada's Population Objectives for Northern Atlantic Forest Region*
American Redstart	Maintain current
American Three-toed Woodpecker	Assess / Maintain
Bay-breasted Warbler	Maintain current
Black-backed Woodpecker	Increase 50%
Black-billed Cuckoo	Increase 100%
Blackburnian Warbler	Maintain current
Black-throated Blue Warbler	Maintain current
Black-throated Green Warbler	Maintain current
Blue-headed Vireo	Maintain current
Boreal Chickadee	Increase 100%
Cape May Warbler	Increase 100%
Eastern Kingbird	Increase 50%
Evening Grosbeak	Increase 100%
Magnolia Warbler	Maintain current
Northern Goshawk	Increase 50%
Purple Finch	Maintain current
Red-shouldered Hawk	Assess / Maintain
Rose-breasted Grosbeak	Maintain current
Ruffed Grouse	Assess / Maintain
Tree Swallow	Maintain current
Veery	Increase 100%
White-breasted Nuthatch	Maintain current
White-throated Sparrow	Maintain current
Yellow-bellied Sapsucker	Maintain current

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

I, Becky Stewart, Atlantic Program Manager (Name, Title), as a representative of Bird Studies Canada (Organization Name) and a Partner in A critical review of habitat and BMP-related research to improve and promote bird biodiversity and habitat on forestry land in the Maritimes (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Bird Studies Canada (Organization Name) to sign this agreement.

Signed:

Becky Stewart
Name

Atlantic Program Manager
Title

Bird Studies Canada
Organization

March 18, 2013
Date

An Analysis and Knowledge Exchange for the
Practical Implementation of Sustainable Biomass Feedstocks for Bioenergy

Organization Information:

Lead Organization Name and Address	Canadian Institute of Forestry / Institut forestier du Canada (CIF/IFC) PO Box 99, 6905 Hwy. 17 West, Mattawa ON P0H 1V0
Name, phone and email for Project Director	John Pineau jpineau@cif-ifc.org - 705-744-1715 x. 585
Lead Organizational Mission Statement (25 words or less)	CIF/IFC endeavors to provide national leadership in forestry, promote competence among forestry professionals and foster public awareness of Canadian and International forestry issues.
Lead Organization Annual Operating Budget	$750,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1. George Bruemmer: Canadian Wood Fibre Centre gbruemme@nrcan.gc.ca - 613-947-7331 2. Roxanne Comeau: Canadian Forest Service rcomeau@nrcan.gc.ca - 613-992-5799

Project Overview

Nationally and internationally, governments are promoting the use of renewable energy sources, particularly through the utilization of biomass feedstocks. Moving away from current non-renewable energy sources will undoubtedly help to address imminent global issues including climate change. The objective of this project is to investigate the sustainable acquisition of biomass feedstock with a focus on Sustainable Forestry Initiative (SFI) fiber sourcing requirements including SFI certified forests as well as chain of custody certified sources - and the implementation and use of associated bioenergy technology; ultimately supporting practical implementation through a thorough knowledge exchange and extension program.

The CIF/IFC – a 105-year-old non-profit organization – has a long history of supporting and delivering timely, relevant and successful forest science and conservation projects, and fostering professional and public awareness. The Institute is a proud supporter of the Central Canada SFI Implementation Committee (CCSIC) as demonstrated by the signed Memorandum of Understanding (please see attached). The CIF/IFC will structure this project so as to thoroughly analyze the implementation of sustainable bioenergy from biomass feedstocks in Hadashville, Manitoba at Pineland Forest Nursery (Pineland). Pineland is ideally positioned to operate as the location of study and analysis as the use of leading-edge bioenergy technologies, including a gasifier and a biomass boiler, has been recently and successfully implemented for converting raw biomass into useful energy.

Projected research and analysis will have a strong focus on the utilization of sustainable biomass feedstock harvesting and salvage for heat and electrical generation at the site. Research will look into the efficient use of regional and interprovincial forest resources, exploring waste by-products of current forestry practices and underutilized species for biomass feedstocks. Information will be used to inform the sustainable use of biomass feedstocks for bioenergy and sustainable forest management of SFI-certified forests in Canada.

Grounded in sound science and leading edge bioenergy technology, this project will place much emphasis on the ecological integrity, economic viability and social benefits of SFI certified forest biomass procurement and bioenergy implementation. From an ecological perspective, we will deliver a comprehensive life-cycle analysis, providing a more informed basis for the sustainability of biomass feedstocks and the carbon sequestration and cycling properties of wood products; synthesizing such information will be integral for both conservation purposes (carbon storage, species diversity, environmental goods and services) and for long-term forest productivity. A thorough analysis of the associated economics at Pineland will be undertaken and showcased, emphasizing the economic feasibility relating to the acquisition of biomass from the forest, and its conversion to energy (i.e. heat and electricity). Economic modeling will further examine the future practicality, feasibility and sustainability of biomass harvesting. From a social perspective, focused research in this component of sustainable forestry, will allow improved long-term ecological and economic understanding -

enabling project results to be easily accessed and understood by the public, which will improve general acceptance of the broad scale implementation of bioenergy, and thereby enhance the opportunity for implementation in communities associated with SFI certified forests.

A significant portion of this project will focus on the synthesis, formalization and packaging of information for knowledge exchange and transfer; this will highlight the biomass work and forestry practiced on SFI certified lands in northwestern Ontario (Kenora, Wabigoon, Caribou, Dryden and English River forests) and potentially on forests in Manitoba (Swan Valley) as SFI certification is achieved, the chain of custody certification standards of all biomass sources, the bioenergy now produced at Pineland, and potential applications at a broader scale. In addition, synthesizing the knowledge gained from existing biomass research projects will enable the compilation of a holistic vision of the sustainability of bioenergy from biomass feedstocks, fully recognizing social, ecological and economic factors. Extension products and services with synthesized material and results will be developed and systematically delivered in a variety of forms to enable effective information sharing, including: 1) the development of a practical guide for sustainable biomass-bioenergy implementation. This reader-friendly document will include recommendations for implementation for both small- and medium-scale projects, guidelines for optimizing sustainability and important economic considerations; 2) findings will be prominently featured in the CIF/IFC's scientific journal, *The Forestry Chronicle*; 3) information, both practical and educational, will be made accessible through a variety of the CIF/IFC's social-media and multi-media outlets; and 4) a series of five workshops will be organized and delivered across central Canada to present findings and enhance information exchange. The workshops will take place in Toronto, Thunder Bay, Dryden, Winnipeg-Hadashville and Saskatoon. With an objective, accurate and practical depiction of biomass - bioenergy implementation in Canada, this analysis and knowledge exchange will serve as an effective platform to inform governments (nationally and internationally), policy makers, and the public at large, allowing Canada's provincial and territorial jurisdictions to become better informed on the implementation of certified, sustainable biomass – bioenergy programs.

Investing in sustainable forestry practices and associated research through this project, will benefit Canada from a national perspective by promoting ecological, economic and social sustainability, but will also catalyze us on the world stage; while this project will be regionally and provincially executed, the results will have highly important and prominent international implications. The CIF/IFC has assumed responsibility and leadership for Canada's involvement in International Energy Agency (IEA) Bioenergy Task 43 for 2013-2015. Results garnered from this project will provide integral input to Task 43, informing on the sustainability of Canadian forest practices relating to biomass feedstocks, subsequently and specifically underpinning 1) Canada being positioned as a world leader in sustainable forest management relating to biomass feedstocks; 2) factual and science-based information on sustainable forest management practices in Canada to inform European Union government agencies in policy-making; 3) the promotion of SFI as an inclusive third-party forest certification system - as a means of encouraging excellence; and 4) highlight the positive environmental attributes, carbon sequestration and cycling properties of wood products.

This project will fall under the umbrella of CIF/IFC's Science-Extension-Education-Knowledge (CIF-SEEK) program. CIF-SEEK is an objective platform for interdisciplinary forest science collaboration and extension, providing leadership and accountability in the successful implementation of science to support sustainable forestry and integrated land and natural resource management across Canada. Because bioenergy feedstock development and the assurance of compliance with and consideration for sustainability models within a certified forest context is very much based on relevant research and science, CIF-SEEK will enhance the coordination and capacity to achieve such deliverables.

Confirmed Project Partners	*Project Title*	*Amount Requested*	*Total Project Budget*	*Brief Project Summary (50 words or less)*	*What elements of the SFI 2010-2014 Program does/do your Project address*
Canadian Institute of Forestry - lead agency	An Analysis and Knowledge Exchange of the Practical Implementation of Sustainable Biomass Feedstocks for Bioenergy	$85,000 from SFI CIF/IFC will provide $30,000	$85,000 – SFI $30,000 – CIF/IFC	A case study analysis and synthesis documentation of sustainable biomass feedstocks - bioenergy production focusing on economic viability, ecological integrity and social benefit – using the model of Pineland Nursery and its use of biomass feedstocks from SFI certified forests and bioenergy technology, with associated and effective knowledge exchange.	With a strong focus on the sustainable production of biomass feedstocks, this project will address several elements of the Standard Components: forest management and planning; forest productivity; efficient use of forest resources; legal and regulatory compliance; forest research science and technology; training and education; community involvement in the practice of sustainable forestry; and landowner outreach.
Pineland Nursery		$10,000 in-kind	$10,000		
SFI Central Canada Implementation Committee		$2,000 in-kind	$2,000		
Resolute Forest Products		$5,000 in-kind	$5,000		
CIF/IFC Manitoba Section		$5,000 in-kind	$5,000		
CIF/IFC Lake of the Woods Section		$2,500 in-kind	$5,000		
Weyerhaeuser		$5,000 in-kind	$5,000		
University of Toronto		$5,000 in-kind	$5,000		
Saskatchewan Research Council		$5,000 in-kind	$5,000		
Manitoba Forestry Association		$5,00 in-kind	$5,000		
Manitoba Conservation		$10,000 in-kind	$10,000		
LP Canada Ltd.		$5,000	$5,000		

Project Partners

Confirmed Project Partners	Primary Contact Name & Title	Complete Contact Information	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Canadian Institute of Forestry (lead agency)	John Pineau, CEO	jpineau@cif-ifc.org 705-744-1715 x. 585 - PO Box 99,	John Pineau is currently the Institute's CEO after having served as the Executive Director since September of 2006. Prior to that time he worked for the Forestry Research Partnership as Extension Manager. John worked for the

		6905 Hwy 17 West. Mattawa On, P0H 1V0	Ontario Ministry of Natural Resources in a variety of capacities from 1979 to 1994. He was employed by Millar Western Forest Products Ltd. in Alberta as G.I.S. Biologist from 1994-2000.
Pineland Forest Nursery	Trevor Stanley, General Manager	Trevor.stanley@gov.mb.ca 204 426-5235 x. 2 P.O. Box 45, Hadashvile, Manitoba R0E 0X0	Trevor Stanley is the General Manager of Pineland Nursery. Since 1953, Pineland Forest Nursery has provided seedlings and seed processing services for reforestation, including for many SFI certified forests. Pineland grown seedlings have been planted in all regions of Manitoba, across Alberta, Saskatchewan, Ontario, Minnesota, and Michigan. Pineland is committed to procuring its required biomass feedstocks in a manner in accordance with SFI fiber sourcing standards, and will be seeking SFI certification with respect to chain of custody for its over-all biomass procurement program.
Manitoba Conservation	John Dojack, Director	John.dojack@gov.mb.ca; 204-945-7998; Forestry Branch, Manitoba Conservation 200 Saulteaux Crescent, Winnipeg MB R3J 3W3	John Dojack is the Director of the Forestry Branch of Manitoba Conservation and Water Stewardship. This branch is one of several responsible for ensuring sustainable resource management. The Forestry Branch manages provincial Crown forests by setting forest harvest levels, monitoring forest management activities, ensuring forests are regenerated, providing protection from insects and diseases and collecting revenues for use of Crown timber. The Department is a member of the Central Canada SFI Implementation Committee.
CIF/IFC Manitoba Section	Brad Epp, Director	Brad.epp@gov.mb.ca 204 945-7988 Box 5200, The Pas, MB R9A 1S1	Brad Epp is the current director of CIF/IFC's Manitoba Section. This section has been actively involved in delivering various events to promote good forestry in the province; including hosting speakers from federal and provincial governments, universities, local forest industry and outside agencies; organizing workshops (including biomass) and field trips. The section maintains a broad provincial membership with representations from government, industry, consultants, academia and related disciplines.
CIF/IFC Lake of the Woods Section	Jack Harrison, Director	dfmc@shaw.ca 807-223-7216 28A Earl Avenue, Dryden On. P8N 1X5	Jack Harrison sits as the current Director of CIF/IFC's Lake of the Woods Section, and is based in Dryden Ontario. Lake of the Woods Section is engaged in extension and knowledge exchange events and activities for its members. Jack is also the General Manager of the Dryden Forest Management Company (DFMC), responsible for sustainable forest management activities in the area. DFMC is a member of the Central Canada SFI Implementation Committee.
University of Toronto	Dr. Tat Smith, Professor	tat.smith@utoronto.ca 416-978-4638 Faculty of Forestry, 33 Willcocks St. Toronto On M5S 3B3	Dr. Tat Smith is Professor and Dean Emeritus (Forestry) at the University of Toronto. Tat is currently a member of the Ontario Provincial Forest Policy Committee, serves on the Board of the Sustainable Forestry Initiative, is Associate Leader for IEA Bioenergy Task 43, Chair of the Board of the Invasive Species Centre, and is Vice President of the National Executive of the CIF/IFC. Tat received his Ph.D. from the University of Maine, Forestry, 1984. Tat was a Professor and Head of the Department of Forest Science at Texas A&M

			University from 1999 – 2005.
Saskatchewan Research Council	Dr. Mark Johnston, Senior Research Scientist	Johnston@src.sk.ca; 306-933-5400 Saskatchewan Research Council 125-15 Innovation Boulevard, Saskatoon, SK S7N 2X8	Dr. Mark Johnston is a senior research scientist at the Saskatchewan Research Council in the areas of forestry and agroforestry. An internationally recognized institution for 65 years, SRC is one of Canada's leading providers of applied research, development and demonstration and technology commercialization. SRC has an active R&D program in bioenergy, including recently patented technology for producing ethanol from woody biomass.
Manitoba Forestry Association	Patricia Pohrebniuk, Executive Director	ppohrebniuk@thinktrees.org 204-453-3182 900 Corydon Ave. Winnipeg MB. R3M 0Y4	Patricia Pohrebniuk is the Executive Director of the Manitoba Forestry Association (MFA). The MFA was created in the early 1970's, but its roots reach back to the early 1900's, when the Canadian Forestry Association was established by a group of foresters, business leaders, legislators, and private citizens who felt Canadians needed to understand the important role forests played in the country's environment and economy; the concept of natural resource conservation was barely understood at that time. The MFA is a non-profit and focuses on forestry education and outreach across the province, and is a signed supporter of the Central Canada SFI Implementation Committee (please see: www.sficentralcanada.org)
SFI Central Canada Implementation Committee	Mike Maxfield, Certification and Communications Manager	Mike.maxfield@resolutefp.com 807 475-2626 2001 Neebing Ave Thunder Bay, ON P7E 6S3	Mike Maxfield is Certification and Communications Manager for Resolute Forest Products based in Thunder Bay, Ontario. He is currently the Chair of the Central Canada SFI Implementation Committee and a registered professional forester for over 25 years. CCSIC promotes and fosters understanding of the Sustainable Forestry Initiative and encourages the implementation of sustainable forestry practices to wood suppliers, landowners and the public. The committee was formed in December, 2003. All participants are equally represented. The Committee consists for SFI Program Participants, SFI Program Supporters, SIC Supporters and General Members.
Resolute Forest Products	Martin Kaiser, Fiber Optimization Manager	Martin.kaiser@resolutefp.com 807-475-2356 2001 Neebing Ave Thunder Bay, ON P7E 6S3	Martin Kaiser is currently Fibre Optimization Manager with Resolute Forest Products based in Thunder Bay, Ontario. He has extensive experience in biomass and bioenergy and in the sustainable management of forests. Resolute forestry operations and associated licenses and management unites are certified under SFI. Resolute has implemented sustainable bioenergy production at several of its mill sites in Canada, introducing effective and sustainable bio-refinery capacity to its operations.
Weyerhaeuser	Matt Wilkie, Purchase Fibre and Systems Leader	matt.wilkie@weyehaeuser.com (807) 548-714	Matt Wilkie is a registered professional forester with 21 years of experience working for the forest industry in Ontario. Through his employment with E. B. Eddy, Domtar and now Weyerhaeuser, Matt has been involved in various aspects of forest management including silviculture, operations, planning, wood supply analysis and GIS. Matt has authored

			two forest management plans. Several of the forests managed under Weyerhaeuser are fully SFI certified, and will be supplying biomass feedstock to Pineland Nursery. Matt is also an actively engaged contributor to the success of the CCSIC.
LP Canada Ltd. - Swan Valley Forest Resources Division	Paul LeBlanc, District Forester	Paul.LeBlanc@LPCorp.com 204-734-4102 558 3rd Ave South, PO Box 998 Swan River, MB, R0L 1Z0	Paul LeBlanc is District Forester with LP Canada Ltd. in Swan Valley Manitoba. He is directly responsible for LP Canada Ltd. - Swan Valley Forest Resources Division SFI certification and as part of his job he is the lead person for SFI audits, maintaining the company's Environmental Management System, and representing LP Canada Ltd. on the Central Canada SFI Implementation committee.

Project Details

1. All partners involved in this project will ensure that the key goals and objectives of SFI are achieved, and its involvement and support are well profiled. The research and analysis conducted in Hadashville, Manitoba at Pineland and in surrounding SFI certified forests will be based in sound scientific method with measures in place to account for conservation values; with subsequent knowledge exchange this project will significantly contribute to the knowledge informing sustainable forestry in North America, and its continuous improvement: the quintessence of Sustainable Forestry Initiative (SFI).

Developing information that will positively affect responsible forest policy, planning and practice, both now and in the future, will also aid in informing decision making and ensuring the best management practices are achieved. Project partners will provide leadership and deliver relevant forest science that will improve forestry relating to biomass and bioenergy production. A life-cycle analysis will be performed, explicitly reviewing ecological processes, including carbon sequestration properties of wood, forest and soil health, and forest productivity for bioenergy implementation. Along with a comprehensive economic analysis, this will advance understanding of how sustainable forestry measures do not preclude economic viability. Projected conservation (including climate change mitigation) and economic benefits incurred are invaluable to social stability.

An extensive knowledge exchange program will be a major component of this project; supporting the development of products and services that focus on practical biomass - bioenergy implementation. This will greatly inform of the role of SFI, and specifically illustrate many of the objectives set out in the *SFI 2010-2014 Standard*. A series of workshops will provide information to an array of individuals and organizations, including policy makers, broadening their understanding of successfully implementing sustainable forestry relating to biomass from feedstocks. Emphasis will be placed on topics including forest management planning, maintaining forest productivity, and the efficient use of forest resources, related to procuring biomass.

With research, analysis and extension aimed at informing the broadest possible community involved in sustainable biomass feedstocks - bioenergy implementation, this project will be leading edge with respect to environmental responsibility and sustainable forestry at both national and international levels, especially with its strong connection to CIF/IFC's leading role in IEA Task 43.

2. Researching bioenergy implementation from biomass feedstocks from a practical, scientific and objective approach will enhance knowledge relating to sustainable forestry. Promoting the outcomes of our analysis locally, nationally and internationally will further broaden and promote the practice of sustainable forestry, and enhance Canada's place on the world stage with respect to environmental leadership. The CIF/IFC endeavors to promote the outcomes of this project through a variety of knowledge media.

A major component of knowledge exchange and transfer will include five workshops to take place in Toronto, Thunder Bay, Dryden, Winnipeg-Hadashville and Saskatoon. Findings will serve to inform the public, government, industry and specifically - policy makers, on sustainable forest management policies, planning and practices for the practical development of sustainable bioenergy from biomass feedstocks. The research and findings will also be featured in the CIF/IFC's professional and scientific journal, *The Forestry Chronicle* - read and reviewed in Canada and around the world.

The project will also allow the development of a practical guide for bioenergy implementation relating to the technology itself (i.e. heat and electricity producing and gasification technology), which will inform the potential of similar small and medium scale bioenergy projects. The guide will further include information on actual implementation, retaining elements that contribute to forest health and biodiversity, ideal harvest levels, factors for optimizing economics, maintaining forest productivity and, considerations for non-timber forest products and values. This practical approach will also be highlighted in various social-media and multi-media.

Additionally, CIF/IFC has taken responsibility for Canada's involvement in IEA Bioenergy Task 43, for the time period of 2013-2015; information garnered from this project will therefore be used to promote sound bioenergy and development, and inform on sustainable forest practices in certified forests in Canada. The SFI logo will also be prominent in all published material, lectures, newsletters, seminars and wherever relevant.

3.

Project Goals	***Activities***	***Tangible Outcomes***	***Measure Success***	***Grant Funds***	***In-Kind or Matching Funds***
Goal 1: Investigate the ecological implications of acquiring biomass feedstocks from SFI certified forests	Complete field data collection at recently active forest biomass harvest sites - and synthesis of information from other biomass feedstock studies; with subsequent analysis	Qualitative and quantitative data allowing understanding of the ecological implications of using biomass feedstocks	Improved understanding of ecological indicators for sustainable biomass harvest	$20,000	$32,000
Goal 2: Increase knowledge of economic viability	Full economic analysis from the forest – to final energy production	A better understanding of parameters affecting economic viability of bioenergy; schematic for economic maximization	Informative measures of microeconomics relating to both present and future sustainable production of bioenergy	$15,000	$20,000
Goal 3: Knowledge Exchange	Provide objective, accurate and practical scientific knowledge through outreach and a variety of media	Highlight findings in *The Forestry Chronicle;* inform public through various media platforms; develop practical guide for bioenergy implementation; host five workshops to present findings	Development of a practical and comprehensive document on the implementation of bioenergy from sustainable biomass feedstocks	$25,000	$25,000
Goal 4: Social responsibility	Address key elements of social concern - ranging from land and food security to job development (extension and knowledge exchange)	Present quantitative and qualitative synthesized information	Positively inform social understanding and acceptance of biomass feedstock use and bioenergy production	$20,000	$5,000
Goal 5:	Effective	Provide factual,	Global recognition	$5,000	$10,000

Position Canada as a world leader in sustainable forestry	communication of ecological integrity and economic feasibility will contribute to IEA Bioenergy Task 43 (extension and knowledge exchange)	science-based information on sustainable forestry policy and practice in Canada; inform EU government policy development	of Canada's capacity to contribute to a green economy through sustainable forestry		

Project Timeline

This project is set to take place over the course of a single year, starting April 1, 2013 until March 31, 2014. The timelines to achieve specific goals is as follows: Goal 1: Investigate ecological implications of sustainable biomass feedstocks – bioenergy production: ongoing – a variety of datasets relating to and including general forest health, soil health, downed-woody debris, forest productivity, carbon sequestration, harvest levels etc. will be collected and synthesized, made available on-line and updated at regular intervals throughout the duration of the project; Goal 2: Increase knowledge of economic viability: March 31, 2014 – full economic analysis will be undertaken and include all components of the year's study – draft analysis will be ready by October 1, 2013, final by March 31, 2014; Goal 3: Knowledge exchange: ongoing – as results are analyzed, synthesized and packaged, they will be communicated in newsletters, scientific articles and social and multi-media; final version of the practical guide will be ready upon completion of the project (March 31, 2014); workshops – all five will be delivered in mid-late winter 2014; Goal 4: Social responsibility: ongoing – the public and key audiences will be regularly updated throughout the project and we will work to ensure social responsibility should any concerns arise; Goal 5: Position Canada as a world leader in sustainable forestry: ongoing – continuously update and inform IEA Bioenergy Task 43 of emerging trends and data relating to sustainable biomass development and implementation in Canada.

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits (intern)		$30,000 100% (CIF/IFC)	
Operating Costs			
Field data collection and information synthesis	$20,000		$2,000 – CCSIC $10,000 – MB Cons. $5,000 – Weyerhaeuser $5,000 – Resolute $5,000 – LP Canada Ltd.
Data analysis and collation	$15,000		$5,000 – MFA $5,000 - Pineland
Report Writing and Production	$20,000		$5,000 – UofT $5,000 - Pineland
Extension and knowledge exchange	$30,000		$10,000 – CIF Sections $5,000 – SRC
Total	**$85,000**	**$30,000**	**$62,000 (In-Kind)**

SFI Inc. Conservation & Community Partnerships Grant Program Request for Proposals
Directions and Grant Application for 2013 Grant Projects

The SFI Conservation and Community Partnerships Grant Program supports collaborative projects between non-profit organizations SFI program participants, along with other stakeholders, which support SFI objectives. Since 2010, SFI has awarded 33 grants for a total of over $1.32 million. Further, these funds are leveraged with other project partner contributions, for a total of just over $4.8 million in investments in these projects.

In 2013, SFI will award up to $175,000 in Conservation Grants, depending on the proposals received. This application is for proposal requests $5,000 or more. For proposal requests below $5,000, please use the Application for Requests Under $5,000 which you can download at our website here.

These funds will support projects that illustrate, inform, or improve the role of the SFI standard. It is expected that the majority of these funds will support projects in several of the following five categories: Working Forests, Water, Carbon and Bioenergy, Capacity Building, and Wildlife and Biodiversity.

- Working forests: Proposals are encouraged that (1) provide guidance, technical assistance, or the business case to forest landowners about working forest conservation easements, or (2) promote recreational opportunities for outdoor enthusiasts in SFI-certified forests, or (3) examine the intersection between healthy, managed forests and public benefits, including clean air and water, wildlife habitat, and other ecosystem functions.

- Water: Proposals are encouraged that (1) illustrate the role of SFI Standard requirements in protecting water quality and quantity in streams, lakes and other water bodies, or (2) address government decision-making on the topic of forestry roads and water quality, or (3) contribute to current knowledge on the effectiveness of best management practices for water quality (BMPs), or (4) apply expert knowledge and research results in the development of best management practices that protect water quality in forestry.

- Carbon and bioenergy: Proposals are encouraged that (1) consider the intersection of certified forests and carbon accounting in the context of the North American bioenergy sector, or (2) examine how bioenergy markets have impacted utilization and intensity of management on forestlands, or (3) develop tools to help landowners better understand the impacts of management on forest carbon, or (4) examine the role of forest certification in addressing sustainability requirements of North American or European renewable energy policies.

- Capacity building: Proposals are encouraged that (1) assist the growth of SFI certification within the Aboriginal/Tribal community in Canada or the U.S., or (2) enhance capacity of Aboriginal/Tribal community to assess and manage natural and cultural resources, or (3) develop and implement forest landowner outreach programs surrounding forest conservation practices.

- Wildlife and Biodiversity: Proposals are encouraged that (1) restore key wildlife habitat impacted by natural disturbances such as fire or flood, or (2) protect, promote, illustrate, or improve biodiversity and wildlife habitat practices to meet SFI Standard requirements.

Information on the Grant Application Process:

Process

The proposal must be submitted via email in MS Word format (please, no hard copies) to Eli.Weissman@sfiprogram.org by midnight Eastern Time on Monday, March 18, 2013. Applicants will be notified via email that their application was received. Late proposals will not be considered.

Proposals are limited to 8 pages total, must address all components of the Request for Proposals, and must be in the same format as the application section of the RFP below. Applications that do not follow this format or exceed 8 pages in length will not be considered. Applicants should use a True Type font in 12 point or larger. All applications must be submitted in English.

Timeline

Event	Date
Request for Proposals issued	February 6, 2013
Proposals due to SFI, Inc.	March 18, 2013 by midnight Eastern (no exceptions)
Lead Organizations advised of results	By April 18, 2013

Terminology

The following terminology applies to this Request for Proposal:

- "Must" or "Mandatory" means a requirement that shall to be met in order for a proposal to receive consideration.
- "Lead Organization" is a conservation group, college or university, or other nonprofit that submits this application, oversees the project funding and is responsible for reporting to SFI Inc. quarterly on the project progress.
- "Partner" means an individual, partnership, government agency, corporation, non-profit, or other entity that submits a Proposal in response to this RFP, or is named in the Proposal as one of the entities that has agreed to be involved in the implementation of the Project.
- "Project" means the work described in the proposal.
- "Proposal" means a response prepared and submitted in response to this Request for Proposal.
- "Should" or "Desirable" means a requirement having significant degree of importance to the objectives of this Request for Proposal, and will be taken into account in the evaluation of the Project.

Mandatory Requirements for All Proposals

All proposals must contain the following elements. Projects that do not contain these core requirements will not be considered:

- Projects must be collaborative and involve more than one project partner.

- Projects must include a SFI Program Participant or a SFI Implementation Committee as a Project Partner, and where applicable must take place in part or in whole on lands/sources certified to the SFI 2010-2014 Standard. A list of SFI Program Participants can be found here and a map of SFI Implementation Committees can be found here.

- The project results must have implications or benefits that can be applied to a regional or larger scope.

- The Project Applicant Lead must be a registered, tax-exempt (i.e. A 501(c)(3) in the US or registered with the Charities Directorate of the Canada Revenue Agency in Canada), non-profit organization whose scope encompasses expertise in improved forest management, forest conservation, wildlife habitat, water resources, or other areas that would support a project related to the topic requested in the RFP and the SFI Program.

  Note: Colleges and universities qualify as tax-exempt organizations; however additional non-profit conservation partners will increase the strength of the application.

  Applicants must submit current proof of tax-exempt status with this application.

- The Project must relate to or support one or more elements of the SFI 2010-2014 Program. You can download a copy of the SFI Standard and supporting documents on our website (www.sfiprogram.org).

- All Project Partners involved in the Project must agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. A copy of this agreement is located at the end of this application.

Additional Desirable Considerations:

These elements are not mandatory, but SFI Inc. will give preference to Proposals that contain one or more of the following desirable elements:

- The Project demonstrates how SFI certification complements existing government initiatives and includes involvement from decision-makers at government agencies.

- Project partners are strongly encouraged to secure matching or in-kind funds for the Project from other organizations and/or other outside funding sources. Applications without matching or in-kind funds will still be considered, however those demonstrating matching or in-kind funds will be given stronger consideration.

- Organizations are strongly encouraged to speak regarding the Project in public venues, including the SFI Annual Conference, or other venues identified by SFI Inc. and the Project partners.

Successful Applications

Projects will be on a six-month payment schedule, based upon the project deliverables and timeline. Lead Organizations will be required to submit semiannual progress reports to SFI Inc. and hold quarterly briefing calls with SFI staff. Funding will be dispersed based upon receipt of the progress reports that demonstrate

that deliverables are met and timelines are kept. If your project runs into any difficulty, it is essential to communicate this swiftly to SFI Inc. so we can help you get the project back on track or redefine project expectations.

Inquiries

Please read this RFP and application in its entirety before contacting SFI Inc. with questions. All inquiries related to this Request for Proposals are to be directed, in writing, to the person identified below. Information obtained from any other source is not official and should not be relied upon.

Sustainable Forestry Initiative, Inc.
900 17th St. NW, Suite 700
Washington, DC 20006
Attention: Eli Weissman
Senior Director of Conservation Partnerships
Phone: **202-596-3452**
E-mail: Eli.Weissman@sfiprogram.org

Grant Application

Application Requirements:

- *Proposals must follow this application format.*
- *Applications cannot be longer than 8 pages (Project Partner signed agreements to Public Communications and Lead Organization's current proof of non-profit status do not count towards the 8 page maximum).*
- *You may delete all text that precedes this section and any text in italics throughout the application.*

All applications must include the following items:

Organization Information

The Lead Organization in the Project must be a registered, tax-exempt organization (i.e. A 501(c)(3) in the US or registered with the Charities Directorate of the Canada Revenue Agency in Canada)*. Colleges and universities qualify as tax-exempt organizations. Applicants must submit current proof of tax-exempt status with this application.*

Lead Organization Name and Address	Canadian Rivers Institute (CRI)
Name, phone and email for Project Director	Dr. Allen Curry 506-452-6208
Lead Organizational Mission Statement (25 words or less)	Advance aquatic research and provide education on the structure and function of fresh water ecosystems, improving their management to promote sustainable use of water resources.
Lead Organization Annual Operating Budget	~$250,000 (Research >$2M)
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Dr. Rick Cunjak, CRC Aquatic Ecosystems, UNB Fredericton, cunjak@unb.ca, (506) 452-6204. Dr. Chris Torgersen, USGS, Forest and Rangeland Ecosystem Science Center, University of Washington, ctorgersen@usgs.gov, (206) 616-1874.

Project Overview

The Project must relate to or support one or more elements of the SFI 2010-2014 Program. You can download a copy of the Standard and supporting documents on our website.

Summary Statement: Temperatures in north-temperate rivers are generally controlled by climate, e.g., river temperatures warm during summer. However, at the local scale river temperatures can be cooled by shading, water depth, and other factors including inputs of tributaries and the discharge of groundwater to the river. Fish take advantage of these local temperature variations to escape summer high temperatures and winter ice accumulations. The amount and location of special temperature habitats or refuges are critical to the survival of species such as the brook trout and Atlantic salmon. How these temperature refuges are created and used by fish are poorly understood. We haven't developed tools to predict their occurrence or their importance to the fish and therefore managers who are charged with protecting river ecosystems don't know where and how to efficiently find these critical habitats.

Background: The pioneers of river sciences discussed the challenges of studying the complex interconnectedness of structures, functions, and processes in river ecosystems, and highlighted how human activities on landscapes will impact rivers (e.g., Horton 1945, Leopold and Maddock 1953, Hynes 1975, Vannote et al. 1980). Since those publications, there has been a plethora of reductionist studies in the physical and biological sciences examining rivers at small scales (e.g., pools, riffles, runs) over limited time periods (e.g., diel, seasonal; reviewed by many, e.g., Johnson and Post 2010). The introduction of GIS has created the computational ability to handle and analyze the overwhelming amounts of spatial data generated from remote sensing (see summary by Johnson and Gage 1997). As a result, there is a continuous push to incorporate more complexity into studies of river ecosystems by extending the scale from sites to reaches to catchments, and now landscapes. The rapid advances in technologies and statistical computing powers are allowing us to move beyond basic studies that examined correlations between the physical state of a landscape and biological components of river ecosystems at the site scale (e.g., Harding et al. 1997), to search for causes of spatial patterns, i.e., how hydrological processes influence biological structures and processes (e.g., Benda et al. 2004, Power 2006) and how human activities across the landscape can impact these interconnected processes (e.g., Allan 2004, Johnson and Host 2010). This scaling up will continue to drive future discoveries about how river ecosystems are structured and function (Parsons and Thoms 2007, Poole et al. 2008, Johnson and Host 2010; Poole 2010).

The thermal regime of a river is controlled primarily by climate (solar heating) and groundwater (baseflow) and modified by landscape features across different spatial and temporal scales (see review by Webb et al. 2008). Consequently, the spatial patterns of river temperature are a compilation of multiple factors across scales of space and time including insolation from the sun (Ebersole et al. 2003), hydrogeological conditions producing groundwater discharge (Curry and Devito 1997), hyporheic flow along the river channel (Poole et al. 2008), and inputs from sub-catchments where smaller spatial scales influence hydrology and stream temperature regimes (Strayer et al. 2003). While there are many studies that examine site-specific temperature variation in rivers (e.g., Story et al. 2003) and use models to predict temperature regimes (e.g., Guillemette et al. 2009), understanding the complexity of the temperature variability in rivers is far from resolved (Johnson 2003, Cassie 2006, Webb et al. 2008).

Temperature plays a critical role in defining adaptations and distributions of animals because survival is ultimately based on the temperature-regulated, chemical reactions within living cells (Brown et al. 2004, McCullough et al. 2009). Fish and invertebrates in the fresh waters of cold climate regions must survive extended periods of extreme cold and accumulations of ice in winter and summer periods when water temperatures can exceed their maximum thermal tolerances. To minimize temperature stress, biota have evolved physiological adaptations as well as the behaviour of moving to thermal refugia to escape high temperatures in summer (Breau et al. 2007) or cold water and ice accumulations in winter (Linnansaari et al. 2008). For some populations, temperature anomalies in rivers sustain reproductive habitats (Curry et al. 1995; Baxter and Hauer 1999). Despite its importance at the site scale, we have yet to seriously examine temperature regulation of habitats at the river to catchment scales as reviewed and discussed by Webb et al. (2008).
As we work to understand the whole of a river ecosystem, we will need to link each biological process to its controlling physical structures such as temperature (Buisson et al. 2008, McCullough et al. 2009). Our emerging comprehension of the interconnectedness of physical-biological processes is forecasting the fundamental necessity for multi-scale, interdisciplinary approaches to advance our understanding of river ecosystems (e.g., Johnson and Host 2010, Rice et al.

2010, Tetzlaff et al. 2010). And, as the global water crisis continues to emerge as a leading threat to human safety and security, we will need this best science to support successful management of all of our freshwater resources.

Project Objectives: The goal of our programme is to advance our understanding of river ecosystems through a better understanding of temperature and how it creates and sustains animal habitats. This project's objectives are to: 1) identify the spatial scale and features that best predict river temperatures; 2) link temperature to the river's biological components and specifically in this project critical thermal habitats for brook trout and Atlantic salmon; and 3) build a planning tool for the forest industry that predicts the probability of critical thermal habitats for trout and salmon and thus allows for sustainable management of operations that protect water resources and the biological diversity they support.

Project Methods: Objective 1 - We have collected >300km of river temperatures for the Miramichi and Restigouche rivers (NB) from remote sensing using infrared imagery. We have produced a first model of river temperature derived from tributary temperatures and their catchment scale, landscape features (Monk et al. 2013). The statistical methods reduce the suite of potential independent variables, e.g., catchment area, wetland proportion, etc. to predict the tributary temperature using partial least-squares regression. Objective 1 continues the development of models adding more river types (only the Cains River has been modeled), geomorphic features (e.g., river sinuosity, adjacent hillslope grade), and the spatial impact of coldwater discharges to the river (dependent variables). All of such data exists in existing GIS data held by the Province of NB and our industry partner, J.D. Irving, Limited. **Objective 2** – Building on our current models and the improvements in modeling from Objective 1, we will work closely with J.D. Irving, Limited to build an industry-based, GIS application to predict how landscapes control river temperatures. The application will map the predicted river temperatures and propose protective measures, e.g., buffer zones location and size, no road zones that best protect the water resources sustaining river temperatures required to support critical trout and salmon habitat.

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Miramichi Salmon Association Province of New Brunswick	How landscapes control river temperatures: Predicting river temperatures to protect critical thermal habitats for salmon and trout	$109,000 (over two years)	$293,000	The project examines factors controlling critical thermal habitats for brook trout and Atlantic salmon. We will create a GIS application to predict locations of critical habitats and an application that models appropriate protective measures, e.g., buffer zones, road settings, that best protect the water resources required to support critical habitats.	Objectives 3, 4 and 11

Project Partners

**For each Project Partner, please complete the following table. Each Project Partner must also include a signed copy of the Agreement to Public Communications, which can be found at the end of this document.*

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Canadian Rivers Institute	Dr. Allen Curry	Director, Canadian Rivers Institute Professor, Biology Forestry and Environmental Management DNR/Cloverleaf Professor of Recreational Fisheries Biology Department University of New Brunswick Fredericton, NB. E3B 5A3 tel: 506-452-6208, fax: 506-453-3583, email: racurry@unb.ca http://www.unb.ca/cri	Curry has over 60 scientific, peer-reviewed publications in aquatic ecology and hydrology including 10 specific to the proposed SFI project, e.g., Monk, W.A., N. Wilbur, R.A. Curry, and R. Faux. Using landscape-scale geospatial information to predict summer, cold water refugia in rivers. J. Environ. Mgt. 118:170-176; Monk, W.A., D.L. Peters, R.A. Curry, and D.J. Baird. 2011. Quantifying trends in indicator hydroecological variables for regime-based groups of Canadian rivers. Hydrol. Proc. doi: 10.1002/hyp.8137; Monk, W.A. and R.A. Curry. 2009. Models of past, present, and future stream temperatures for selected Atlantic salmon rivers in northeastern North America. American Fisheries Society Symposium 69:215-230.
J. D. Irving, Limited	John Gilbert	Manager, Fish & Wildlife, J. D. Irving, Limited 300 Union St. Saint John, N. B. E2L 4M7	Gilbert graduated from the University of New Brunswick 1975, BScF in Wildlife Management. Employed with the New Brunswick Department of Natural Resources 1975 to 1990 as Manager of Fish and Aquatic Habitat. 1990 to present, Manager of Fish & Wildlife, involved in all aspects of fish, wildlife and environmental management relating to forest planning and operations on over 6.5 million acres of private and Crown managed land.

Project Details

Please provide your answers to the following questions to describe your project. You may provide an introductory narrative to your project, but the following questions must be addressed in the requested format.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*
2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*
3. *In the table below, please list the goals for your project. For each goal, please describe the actions you will take to achieve your goal, the corresponding tangible outcomes (e.g. implementation guidance on a component of the SFI Standard, outreach and education to landowners, acres positively affected by the Project) for each goal, how you will measure your success in achieving each goal, and the portion of the requested grant funds that would be used to achieve the goal. Add rows as-needed to address all project goals.*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: identify the spatial scale and features that best predict river temperatures	Build statistical models that predict river temperatures based on landscape scale features (using existing IR river imagery and GIS data sets).	A forestry planning and management tool (Goal 2) founded in peer-reviewed science.	1-3 peer-reviewed science papers describing the landscape and riverscape scale features of a catchment that control the temperature of a river.	$54,500	Matching - $7,000 In-Kind - $170,000
Goal 2: build a planning tool for the forest industry that predicts the probability of critical thermal habitats for trout and salmon and operations that protect water resources and the biological diversity they support	Incorporate the statistical models into GIS applications that predict probabilities of critical thermal habitat locations, and scenarios of forestry operations, e.g., buffer zone location and sizes, road settings, that best protect river temperatures.	A planning and management tool that identifies and protects critical thermal habitats (water resources) for trout and salmon (biodiversity).	A planning tool implemented by J.D. Irving, Limited and promoted by the Province of NB in future provincial forest management processes.	$54,500	Matching - $7,000 In-Kind - $170,000

Project Timeline

Please provide a timeline for completion of the project. Projects may be up to three years in length, and should be for 9 months at a minimum. The timeline should reflect when you will deliver upon the goals and outcomes as outlined above.

Year 1 of 2: Post-doctoral candidate identified and hired. Review of existing and new GIS data (within CRI, J.D. Irving, Limited, and Province of NB). Modeling, reviews, and publishing of peer-reviewed manuscripts begins (difficult to predict numbers produced - likely 2-3). Begin the collaboration with J.D. Irving, Limited staff on developing GIS applications based on statistical models.

Year 2 of 2: Post-doctoral candidate completes models and publications of such. Application building with J.D. Irving, Limited staff is completed. Application is demonstrated to Province and at various SFI and industry venues as appropriate.

Project Budget

Please fill out the table below to illustrate the entire Project budget. SFI Inc. will not award any funds for organization overhead costs, which include but are not limited to, office rent or maintenance, utilities, temporary hires, etc. While some portion of the grant may be used to offset staff salary and benefits, the focus should be on on-the-ground activities.

You may modify this table to fit your needs, however please ensure your budget addresses the following components:

1. *Percent of budget allocated to each staff person working on the Project*
2. *Total Operating costs divided up by relevant topics such as travel, meetings, communications, education & outreach etc.*
3. *Identify any in-kind support allocated to this Project by each project partner*
4. *Identify any matching funds allocated to this Project by each project partner*

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	$45,000 (PDF, Year 1) $45,000 (PDF, Year 2)	$5,000 (CRI) $5,000 (CRI)	
			$10,000 (JDI staff, Year 1) $10,000 (JDI staff, Year 2)
Operating Costs			
Research Activities			$150,000
Meetings	$3,000 (Year 1) $3,000 (Year 2)	$1,000 (CRI) $1,000 (CRI)	
Travel	$500 (Year 1) $500 (Year 2)		
Education & Outreach			
Communications	$1,000 (Year 1) $1,000 (Year 2)	$1,000 (CRI) $1,000 (CRI)	
Administration	$5,000 (Year 1) $5,000 (Year 2)		
Total (Years 1 and 2)	**$109,000**	**$14,000**	**$170,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Details:
Staff Salary and Benefits - 1 Post-doctoral Fellow at the CRI, UNB Fredericton ($45,000 SFI and $5,000 CRI per annum); JDI Staff in-kind based on hours contributed to the project.
Research Activities – The data collection and assembly has been completed by the CRI in collaboration with J.D. Irving, Limited.
Meetings – Travel and accommodation costs (PDF) to attend scientific and industry meetings to present papers on the progress of the model development.
Travel – Travel to and from industry partner offices for collaborations on the modeling and application building.
Communications – Cost of publication in peer-reviewed science journals
Administration - Project and financial management

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, R. Allen Curry, Director as a representative of the Canadian Rivers Institute, University of New Brunswick and a Partner in ***"How landscapes control river temperatures: Predicting river temperatures to protect critical thermal habitats for salmon and trout"***, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the University of New Brunswick to sign this agreement.

Signed:

Director
Canadian Rivers Institute

March 15, 2013

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, John Gilbert, as a representative of J D Irving, Limited and a Partner in ***"How landscapes control river temperatures: Predicting river temperatures to protect critical thermal habitats for salmon and trout"***, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

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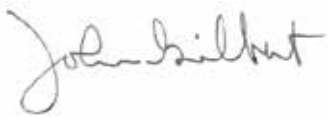
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by J D Irving, Limited to sign this agreement.

Signed:



Manager, Fish & Wildlife
J. D. Irving, Limited

March 15, 2013

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, Mark Hambrook as a representative of Miramichi Watershed Management Committee and a Partner in ***"How landscapes control river temperatures: Predicting river temperatures to protect critical thermal habitats for salmon and trout"***, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Miramichi Watershed Management Committee to sign this agreement.

Signed:

Vice President
Miramichi Watershed Management Committee

March 15, 2013

Sustainable Forestry Initiative Grant Application – Bruce Tract Acquisition, Indiana

Organization Information

Lead Organization Name and Address	Ducks Unlimited, Inc., Great Lakes/Atlantic Regional Office, 1220 Eisenhower Pl., Ann Arbor, MI 48108
Name, phone and email for Project Director	Michael Sertle, Regional Biologist, Ducks Unlimited, 734-623-2000, msertle@ducks.org
Lead Organizational Mission Statement (25 words or less)	Ducks Unlimited conserves, restores, and manages wetlands and associated habitats for North America's waterfowl. These habitats also benefit other wildlife and people.
Lead Organization Annual Operating Budget	Ducks Unlimited, Inc.: Fiscal Year 2012 - $171,641,027
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Tim Hayes, Environmental Director, Duke Energy Corporation, Tim.Hayes@duke-energy.com, 317-902-2432 Christian Freitag, Executive Director, Sycamore Land Trust, christian@sycamorelandtrust.org, 812-336-5382

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Ducks Unlimited, Inc. (DU)	Bruce Tract Acquisition	$175,000	$218,336	Acquisition of 80-acre in-holding at Patoka River NWR, composed of 34 acres State Certified Forest, 8 acres of mixed woodlands, and 38 acres of prior converted farmland. DU will provide matching funds to complete the purchase of	Forest Management Planning, Forest Productivity, Protection and Maintenance of Water Resources, Conservation of Biological Diversity, Management of Visual Quality and Recreational Benefits, Landowner Outreach, Adherence to Best Management Practices, Community Involvement, Public

				this flood-prone tract, which will be owned and managed by Patoka River NWR.	Land Management, and Management Review and Continual Improvement
U.S. Fish and Wildlife Service (USFWS) – Patoka River National Wildlife Refuge (NWR)	Bruce Tract Acquisition	$0	$10,450	USFWS and DU will provide a combination of additional funds to reforest the 38 acres of prior converted farmland back to bottomland hardwoods.	Forest Management Planning, Forest Productivity, Protection and Maintenance of Water Resources, Conservation of Biological Diversity, Management of Visual Quality and Recreational Benefits, Adherence to Best Management Practices, Public Land Management, and Management Review and Continual Improvement
Indiana Department of Natural Resources (IDNR)	Bruce Tract Acquisition	$0	$0	IDNR will provide forestry management and reforestation recommendations. The amount of in-kind staff assistance is currently pending additional IDNR discussions.	Forest Management Planning, Management of Visual Quality and Recreational Benefits, Adherence to Best Management Practices, and Management Review and Continual Improvement

Project Partners

Confirmed Project Partners (list organization name only)*	**Primary Contact Name & Title**	**Complete Contact Information (Email, Phone Number, Mailing Address)**	**Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)**
Duck Unlimited, Inc.	Michael Sertle, Regional Biologist	msertle@ducks.org, 734-623-2000, 1220 Eisenhower Pl., Ann Arbor, MI 48108 www.ducks.org	DU is a non-profit conservation organization that has conserved over 13 million acres of habitat for waterfowl and other wetland-dependent wildlife throughout North America. DU is the premier wetlands conservation organization in North America with over 75 years experience in this field. DU is a 501(c)(3) organization created for charitable, educational, scientific, and conservation purposes. The Great Lakes/Atlantic Regional Office of Ducks Unlimited is located in Ann Arbor,

			Michigan and serves an 21-state region in the northeastern U.S, including Indiana. The GLARO has an annual operating budget of $12 million with 35 full-time conservation staff including biologists, engineers, land surveyors, CAD technicians, construction managers, GIS specialists, land protection specialists, public relations experts, project coordinators, accountants, contract compliance managers, and administrative assistants. Mr. Sertle has been responsible for the delivery of DU's conservation program in Indiana for six years, and has extensive experience with similar projects at Patoka River NWR.
U.S. Fish and Wildlife Service – Patoka River National Wildlife Refuge	Bill McCoy, Refuge Manager	Bill_mccoy@fws.gov, 812-749-3199, 510 ½ W. Morton-Rt. 64, P.O. Box 217, Oakland City, IN 47660	Patoka River NWR and Management Area was established in 1994 in Gibson and Pike counties along the Patoka River in southwest Indiana. Patoka River NWR was established to provide resting, feeding, and nesting habitat for migratory birds, to maintain and increase biodiversity, to restore, protect, and manage the river corridor of bottomland hardwood wetlands, to improve the water quality of the Patoka River, to develop citizen understanding and support for natural resources, and provide wildlife-related education and recreation opportunities. To date over 7,000 acres of a 22,765-acre goal have been acquired. The focus of the refuge is restoration of bottomland hardwood forest habitats. http://www.fws.gov/refuges/profiles/index.cfm?id=31560 Bill McCoy has over 30 years experience with USFWS. He has overseen the development of Patoka River NWR since its inception and has guided the refuge conservation efforts. Bill and his staff have conducted extensive landowner outreach to establish a positive working relationship with prospective sellers.
Indiana Department of Natural Resources	Nick Heinzelman, Director for the Division	nheinzelman@dnr.IN.gov, 317-233-0441, 402 W.	The mission of the Indiana Department of Natural Resources is to protect, enhance, preserve, and wisely

	of Land Acquisition	Washington St., Room WW255A, Indianapolis, IN 46204	use natural, cultural, and recreational resources for the benefit of Indiana's citizens through professional leadership, management, and education. The Division of Fish and Wildlife manages the state's fish and wildlife, populations, access to public lands, and offers advice and incentives to landowners for development of wildlife habitat. The Indiana Heritage Trust (IHT) was initiated in 1993 as a way to buy more natural areas for future public use. IHT has bought some 30,000 acres so far with this money. Nick Heinzelman has been a key member of the IDNR since 2000. In his role with IHT, Nick is responsible for a multitude of programs and strategies supporting land conservation across the State of Indiana. Importantly, Nick oversees the successful Environmental License Plate program, which has contributed more than $28 million to conservation efforts.

Project Details

Wetlands are one of Earth's most biologically productive and diverse natural systems. They constitute a habitat base for exceptional levels of biodiversity, purify and moderate water resources, and provide food, fiber and water security for local communities. As the interface between land and water, wetlands are characterized by shallow water, wetland vegetation, and specialized soils. They take many forms ranging from vegetated shorelines along the Great Lakes to forested floodplains along rivers, from vast expanses of wet meadows to isolated basins distributed throughout watersheds. They are dynamic systems, often varying year-to-year and ever-changing over time as drought and rainfall events influence their hydrology. They provide habitat for over 900 species of wildlife and fish, many of which are endangered. Their importance goes beyond their status as wildlife and fish habitat, however. They are a vital element of national and global ecosystems and economies. Recreational use of wetlands for bird watching, boating, hunting and other forms of recreation annually generates over $59 billion of economic activity in the U.S. Ecosystem services provided by wetlands (water quality improvement, floodwater storage, groundwater recharge, recreation) have been valued at over $10,000 per acre per year. Wetlands can also store significant carbon in their soils, peats, litter, and vegetation and help moderate predicted impacts of climate change. The ecological, economic, and social services wetlands provide warrant their ongoing restoration and conservation across the landscape.

In southwest Indiana, the pre-settlement landscape typically consisted of oak-hickory hardwood forests with interspersed wetland basins, often seasonal in nature, that held vast amounts of carbon and provided habitat for suites of fauna not seen since. As European settlers moved west, much of the native landscape was cleared for agricultural production. The greatest current potential for terrestrial carbon sequestration occurs on

soils with depleted carbon levels, and a primary example of this is land that was under agricultural production at some point. Restoring native vegetation such as wetlands, grasslands, and bottomland hardwoods on degraded agricultural lands can offset a significant share of greenhouse gas emissions. Considerable data exist that indicate reforestation of marginal, frequently flooded agricultural lands with native bottomland hardwood tree species can result in sequestration of over 350-400 metric tons of carbon dioxide equivalents (MTCO2E) per acre of land over a 60-80 year forest rotation. When perennial vegetation is restored for carbon sequestration, many co-benefits are also created for the region. Immediate co-benefits include improved soil water retention and filtration causing a reduction in soil erosion and nutrient run-off. The secondary effects are lower water filtration costs, reduced flood risks, improved fish and wildlife habitat, and increased recreation opportunities such as hunting and fishing. Furthermore, trees remove gaseous pollutants by absorbing them through the pores in their leaf surfaces. Particulates are trapped and filtered by leaves, stems and twigs, and washed to the ground by rainfall. Overall, municipalities and households benefit by avoiding expenditures that would otherwise have to be spent mitigating these effects.

Southwest Indiana is dominated by several major river systems (the Ohio, Wabash, White and Patoka Rivers) and their tributaries that contain wide, forested floodplains. These floodplains provide excellent migration and wintering habitat for a diversity of waterfowl and other migratory birds and are critical wood duck nesting and brood-rearing habitat. The permanent protection of existing high-quality bottomland timber stands and the reforestation of cleared floodplain wetlands is an important conservation objective for DU in Indiana. In partnership with the USFWS, DU has acquired for permanent protection over 4,010 acres and restored/enhanced over 1,545 acres at Patoka River NWR. Of these restoration/enhancement acres, over approximately 1,100 acres have been successful bottomland hardwood reforestations with over 550,000 hardwood tree seedling planted over the last decade alone. The USFWS and DU continue to identify protection and reforestation needs at Patoka River NWR, including the project proposed here.

1. ***For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.***
   This project will address four of the five categories cited in the SFI Grant Program Request for Proposals: Working Forests, Water, Carbon and Bioenergy, and Wildlife and Biodiversity as follows:

   Working Forests will be addressed via education of the sellers and neighboring private landowners about the importance the importance of forest conservation through land protection, and also through the outreach and education mechanisms of the Patoka NWR to its thousands of annual visitors. Using USFWS and DU communication vehicles, the project can inform the public about sound forest conservancy and stewardship and the positive benefits that floodplain forests provide for clean air and water, wildlife habitat, and ecosystem functions, such as reduction of sediment loads in the nearby waterways and reduction of atmospheric carbon. Additionally, the project can illustrate the ability of intact working forests to support recreational opportunities including, fishing, hunting, photography, wildlife observation, hiking, and outdoor education.

   Water will be addressed as part of this project by restoring the forested riparian corridor of the Patoka River, thus reducing the sediment and nutrient loading typically associated with cropland or other degraded lands. Additionally, the reforested acres of the project will improve surface water retention time, benefitting wetland and groundwater recharge and further reducing contaminant migration in to the adjoining waterway.

   Carbon and Bioenergy will be addressed by permanently protecting 34 acres of State Certified Forest and the eight acres or mixed woodland, and by reforesting and permanently protecting the 38 acres of degraded farmland. Upon completion of the reforestation efforts, the entire 80-acre parcel will provide atmospheric carbon sequestration for the life of the forest located upon

the Bruce Tract. This project represents the latest of many projects in southern Indiana that incorporate the goal of carbon sequestration into a broader wetland conservation approach, leveraging partnerships with various stakeholders including Cinergy Energy (now Duke Energy), Peabody Energy, Patoka River NWR, and local land trusts to accomplish the DU mission. These partnerships, including this proposed partnership between DU, Patoka River NWR, and SFI, and the intersection between forestland conservation and carbon accounting can be the subject of outreach and education efforts conducted by DU and Patoka River NWR.

Wildlife and Biodiversity will be addressed by protecting and restoring mature bottomland hardwoods. This effort will restore biodiversity to the agricultural acreage, reduce fragmentation of the river corridor through restoration of the farmland acreage, and provide potential habitat for the federally endangered Indiana Bat that is known to occur on the refuge. Conservation of riparian wetland habitat crucial to numerous other federal and state-listed wildlife species documented to occur at Patoka River NWR will also be one of the desired outcomes of this project. These benefits of the partnership and project will be effectively communicated as part of the outreach plan.

2. ***What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?***

Ducks Unlimited fully embraces the importance of outreach education, and public relations, and because DU operates in a partner-centric model of collaborative conservation, we promote the work and success of our partners alongside our own. Our work at Patoka NWR is a perfect example of this team-driven approach, where numerous public and private partners have been able to share in the success of growing and restoring important conservation lands in the region. This approach would continue under the Bruce Tract project, with SFI highlighted as DU's newest partner in conservation in the Mississippi River watershed. Good public relations are fostered through carefully designed strategies to inform the public, government officials, and others directly and through media outreach. New partnerships, agreements, and completed projects all represent key opportunities for our communications staff to issue news releases and develop articles in Ducks Unlimited Magazine and other web-based and print publications. Dedications of completed projects provide an opportunity to celebrate the project accomplishments and partnerships, with media, legislators, DU supporters, partners, and other stakeholders invited to attend. Project signage at the Bruce Tract will describe both the partnership between SFI, DU, and USFWS and educate visitors about the reforestation efforts and suitable forestry practices. For any communication efforts to be effective, key messages must reach the desired target audience and to this end DU will work closely with SFI to develop a communication plan to achieve desired results.

3. ***In the table below, please list the goals for your project.***

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Acquisition of the Bruce Tract	DU will work with the USFWS to acquire the property. USFWS has a signed purchase agreement on the property.	Permanent protection of 80 acres for inclusion into Patoka River NWR.	Successful acquisition of the property, and inclusion into Patoka River NWR.	$175,000	$41,000
Goal 2: Reforestation	DU will work with USFWS and IDNR	Reforestation of 38 acres of	Successful planting	$0	$10,450

of the Bruce Tract	to reforest the property's existing agriculture fields.	prior converted bottomland forest.	and growth of bottomland tree species.		
Goal 3: Landowner Outreach	DU will work with USFWS and IDNR to reach out to landowners of potential acquisitions, especially those that have reforestation potential.	Identify and engage 5 additional properties for acquisition and inclusion into Patoka River NWR.	Successful purchase of at least 3 of the 5 properties.	$0	$1,168
Goal 4: Public Education of Forest Management BMPs	DU will work with the USFWS and IDNR to educate the local public and landowners as to the importance of forests, and the proper management of them in accordance with SFI BMPs.	Engage the public through media outlets, publications, and field days to encourage forestry stewardship.	Public interest into forest management, and engagement in conservation activities at Patoka River NWR.	$0	$1,168

Project Timeline

If successfully funded through the Sustainable Forestry Initiative's Conservation Grants Program, USFWS and Ducks Unlimited will execute the existing purchase agreement to purchase the property in May 2013. The USFWS recently signed a one-year purchase agreement with the private landowner, giving the project partners the first opportunity to purchase this key piece of conservation real estate. In 2012, USFWS and DU acquired two adjoining properties which now gives Patoka River NWR one hundred percent ownership of all the properties adjoining the 80-acre Bruce Tract. However, USFWS and DU have not yet secured the total amount of funding needed to pay the fair market value agreed to by the seller of the Bruce Tract. The SFI funding proposed here would ensure the ability of USFWS and DU to acquire this property within the one-year term of the purchase agreement and not lose this likely one-time opportunity to acquire the property. The seller, a willing participant in the transaction, is excited and eager to work with both DU and USFWS to permanently protect their property as part of the Patoka River NWR, but is also needs to sell this property in the near future to meet personal financial concerns. If USFWS and DU do not acquire this property for inclusion into Patoka River NWR, then it will most likely be sold for continued row-crop agriculture.

Reforestation of the agricultural acreage would occur in the spring of 2014. The project site is within 400 yards of the banks of the Patoka River itself, and is seasonally flooded each year. The USFWS and DU have extensive experience with bottomland reforestation in flood-prone areas at Patoka River NWR, and have been very successful in establishing viable floodplain hardwood tree plantings. The selection of trees species that are native to southern Indiana's bottomlands, such as cypress, swamp white oak, pin oak, shagbark hickory, and sycamore, has been a key component to ensuring tree seedling survival. The reforestation of this property would occur after the flood waters have subsided. Short-term monitoring (one to three years or as required) of the reforested acres by USFWS personnel, with assistance and guidance by IDNR staff as needed, would be ongoing until stand establishment success is evident. Existing forested acres and reforested acres would be monitored on a long-term basis by USFWS personnel.

Project Budget

Expenditure	Amount	Matching Funds*	In-Kind Contributions*
Fee-title Acquisition	$216,000	$41,000	$0

Hardwood Reforestation	$10,450	$10,450	$0
Outreach	$1,168	$0	$1,168
Education	$1,168	$0	$1,168
Total	**$228,786**	**$51,450**	**$2,336**

*All matching funds and in-kind contributions are being provided by DU from private funding sources which have already been secured by DU, and are not currently associated with any other grant programs.

Sustainable Forestry Initiative

2013 Grant Application

Project Title

Family Forest Legacies Project

Amount Requested: $18,150

Total Budget: $33,650

Organization Information

Lead Organization: Family Forest Foundation PO Box 1364, Chehalis WA 98532

Project Director: Steve Stinson, 360-269-5108 stevestinson@familyforestfoundation.org

Family Forest Foundation Mission Statement: *"To promote the conservation and sustainable management of family forests".*

Family Forest Foundation Annual Operating Budget: $50,000

Project References:

Steve Gibbs, Forest Stewardship Program Coordinator, Department of Natural Resources. 360 902 1706. Steve.gibbs@wadnr.gov PO box 47037 Olympia WA 98504-7037

Adrian Miller, Manager of Sustainability and Policy, Longview Timber Company. 360 430 7547. Awmiller@longviewtimber.com PO Box 667 10 International Way Longview WA 98632

Project Overview

Confirmed Project Partners

Family Forest Foundation, Washington Farm Forestry Association, Port Blakely Tree Farms LP and the University of Washington School of the Environment.

Brief Project Summary

The purpose of this project is to develop a forest management model that can help family forest landowners keep their land in active forestry beyond their lifetimes, to develop conservation tools, forest management protocals, and landowner recruitment strategies to achieve this goal.

SFI Standard components addressed by this project

Working Forests: The fundamental objective of this project is to conserve working family forests. Nationwide working family forests are vanishing from the landscape and being converted to other uses. Although they will relinquish ownership, this project will provide family forest landowners the opportunity to see their property conserved as a working forest and at the same time continue to receive some financial benefits from the management of the pooled properties. Hopefully, joining this project will be more attractive to families than selling their land for conversion to other uses.

Water: Standards for water quality protection will rival or exceed standards for forest land set by the state in which the land resides. Standards in Washington State, the initial home of this project, equal or exceed those of any other state. A management policy of this project is to be proactive in implementing practices, above and beyond requirements of the state, that enhance water quality and aquatic ecosystems.

Wildlife and Biodiversity: Family forest owners choosing to join this project have likely managed their properties to favor the interests of wildlife and enhance biodiversity. Wanting to incorporate the interests of landowners choosing to join, project policy will strive to be in the forefront of developing and implementing practices that enhance wildlife habitat and biodiversity in concert with robust tree growth. Nothing can benefit wildlife more than keeping family forests as part of the landscape **.**

Confirmed Project Partners Descriptions

Family Forest Foundation

Steve Stinson, Executive Director, stevestinson@familyforestfoundation.org 360-269-5108 PO Box 1364 Chehalis WA 98532. The Family Forest Foundation was founded on the premise that family-owned forests are integral to the long-term sustainability of Washington State's rural environment and economy. Established by a small group of forest landowners in 2001, this 501C(3) has worked for more than a decade to develop necessary incentives to ensure family forests remain economically and ecologically viable into the future.

Port Blakely Tree Farm LP

Mike Mosman, Vice President Land and Resources, mmosman@portblakely.com360-951-5001 8133 River Drive SE, Tumwater WA 98501. A family-owned company since 1864, Port Blakely is a leader in enlightened land and resource management. Port Blakely's long term commitment to forest

stewardship and management will be essential in the creation of a business plan that works for family forest landowners.

Washington Farm Forestry Association

Rick Dunning, Executive Director rdunning@wafarmforestry.com 360-736-57501133 Kresky Avenue Suite 106, Centralia WA 98531. WFFA is the only statewide membership organization providing advocacy for family forest issues in the policy and regulatory arena. Its membership includes 1,500 of the state's most active family foresters, whose operations extend from Spokane County to the Olympic Peninsula and south to the Columbia River covering about 250,000 acres. The WFFA provides an immediate, active outreach network to the state's family forest land owners.

University of Washington College of the Environment

Luke Rogers, Research Scientist, lwrogers@u.washington.edu 206-543-7418 PO Box 352100 Seattle WA 98195. The University has developed and maintains the Washington State Forest Land Dataset, a spatially explicit depiction of family forest landowner demographics that will be utilized to develop outreach mailing lists. http://www.ruraltech.org/projects/wrl/fldb/

Project Details:

The goal of this project is to conserve family forests throughout Washington State. The initial phase of project development would occur in southwest Washington, where the service areas of the four primary partners overlap. However, when fully implemented, the conservation model would be designed to cover all forest resource areas of Washington State and potentially other forestland regions in the United States.

Issue: Many of Washington State's aging family forest landowners have heirs who are eager to continue their life long legacy. Others have heirs that tend to fall into three categories: disinterested in maintaining a forest ownership; non-existent or interested in cash only. Family forests are an essential component of watershed health and rural economies. Given this state of affairs, the development of a Family Forest Legacies management entity that would allow current owners to donate their lands to be managed sustainably with a benefit to their heirs or other beneficiary is a prudent mechanism to maintain these lands via sustainable forest management practices.

Project Description :

The Family Forest Foundation—in partnership with the Washington Farm Forest Association, University of Washington and the Port Blakely Tree Farm LP—is seeking funds to help promote a unique partnership, called the Family Forest Legacies Project, that will help conserve some of Washington's 5.7 million acres of working family forest lands and that can become a model for preserving family forests in other regions of the United States.

Project Goals	Activities	Tangible Outcomes	Measures of Success	Grant Funds	In-kind or Matching

					Funds
Project Website	Develop Website	Website	Landowner recruitment	$1500	$5000
Landowner Mailing List	Develop and utilize Mailing List	Mailing List Contacts	Landowner recruitment	$9500	
Landowner Outreach	Individual and group outreach	Engage landowners	Landowner recruitment	$7150	$10,500

Project Timeline	Start Date	Finish Date
Project Task		
Develop Webpage	June 1 2013	September 1 2012
Develop and Send Mailer	June 1 2013	October 1 2012
Landowner Outreach	October 1 2013	July 1 2014
Landowner Seminar	December 1 2013	January 31 2014

Project Budget

See attached spreadsheet 2013 SFI Grant Budget 3-17_13.xls

Project Background:

Washington's 215,000 family forest landowners are a vital part of the state's forest industry. Family forest operations represent over half the state's private forest lands. Family forests are themselves a key part of state's forest infrastructure, and, in many areas, they form the interface between urbanizing population centers and larger holdings of federal, state, and private industrial forest lands. Unfortunately, family forest land owners are facing increasing pressures to convert their forest resource lands. These pressures include increasing real estate values, burdensome regulations, an aging land owner population, and this generation's uncertainty that their heirs will maintain their lands as working forests. A growing number of family forest land owners are seeking ways to prevent the conversion of their forest lands; they want to know what tools are available to keep their land as part of the working forest landscape. The purpose of this project is to develop a forest management model that can help these families keep their land in active forestry beyond their lifetimes, to develop conservation tools, forest management protocals, and landowner recruitment strategies to achieve this goal.

SFI Inc. Conservation & Community Partnerships
Grant Application

Organization Information

Lead Organization Name and Address	Forest and Woodland Association of Missouri
Name, phone and email for Project Director	Jim Summers, Executive Director of FWAM (818) 645-5399 jim3587@aol.com
Lead Organizational Mission Statement (25 words or less)	To promote healthy, productive and sustainable forests and trees.
Lead Organization Annual Operating Budget	$50,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Dave Murphy, Conservation Federation of Missouri, dmurphy@confedmo.org, 573-634-2322. Jerry Van Sambeek, Chairman, Missouri Forest Resources Advisory Council, cm5jwvs@gmail.com

Project Overview

The Forest and Woodland Association of Missouri has great potential to reach Missourians about the value and need of healthy sustainable certified forests. Through outreach efforts, they will establish themselves as the leading non-profit advocate for healthy forests and forest certification on private land in Missouri. This project will seek to educate a broad base of the public and landowners on the importance of certification for producers and consumers of wood products. This project seeks to support the SFI Performance Measure 17.1 by developing a package of events and web based trainings for landowners and consumers of wood products. Trainings will be management oriented for landowners and all contain a "value of certification and SFI's role in certification" component. The project will also support Performance Measure 16.1 by offering training to foresters on the certification process. One final objective that ties into to both of the above measures is to offer all foresters training on "Expanding Your Base." This will provide new insights and methods for forester to increase landowner interest in forest management.

To complete these objectives mentioned above, this grant will assist FWAM with an outreach coordinator position and other costs associated with the programs. An outreach coordinator is critical to the completion of these tasks. Currently, FWAM has a part time Executive Director with full time demands. The grant outlines an ambitious year of events that will not be feasible without the added person.

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Missouri Department of Conservation Missouri University Center of Agroforestry Forest ReLeaf of Missouri	Missouri Landowner and Forester Educational Series	$29,400	$77,600	FWAM strives to be the leading non-profit advocate for healthy forests and forest certification on private land in Missouri. This project will seek to educate a broad base of the public and landowners on the importance of certification for producers and consumers of wood products.	Performance measure 16.1 will be fulfilled by providing training to foresters on the performance measures of SFI. The SFI Performance Measure 17.1 will be supported by developing a package of events and web based trainings for landowners and consumers of wood products.

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Missouri Department of Conservation	Brian Schweiss, Forestry Field Program Supervisor - Private Land	Brian.schweiss@mdc.mo.gov, (573) 522-4115 ext. 3129, PO Box 180, Jefferson City, Mo 65102-0180	Established in 1937, the Missouri Dept. of Conservation administers more than 975,000 acres throughout the state, protecting the state's wild resources and helping Missourians connect with their natural heritage. Its goal is to sustain diverse, healthy plant and animal communities–well into the

			future. As the lead partner in Missouri for the Call Before You Cut program, MDC has been the coordinator for all activity.
University of Missouri Forestry Extension	Shibu Jose, Director	joses@missouri.edu, (573) 882-0240, 203 ABNR, Forestry Columbia, MO 65211	The Center for Agroforestry at the University of Missouri, established in 1998, is one the world's leading centers contributing to the science underlying agroforestry, the science and practice of intensive land-use management combining trees and/or shrubs with crops and/or livestock. Agroforestry practices help landowners to diversify products, markets and farm income; improve soil and water quality; sequester carbon, and reduce erosion, non-point source pollution and damage due to flooding; and mitigate climate change.
Forest ReLeaf of Missouri	Donna Coble, Executive Director	donna@moreleaf.org, (314) 533-5323 4207 Lindell Blvd; Suite 301 St. Louis, MO 63108	Founded in 1993 as the local response to Global ReLeaf, Forest ReLeaf is an independent, nonprofit organization dedicated to inspiring volunteer efforts in planning and caring for our state's trees and forests. Its program Forestkeepers is a statewide network of over

			2,000 volunteers working to conserve, sustain, and enhance Missouri's forest resources through advocacy, monitoring, and management.

Project Details

A year-long schedule of courses to be offered throughout the state for a variety of audiences will be created. This is a new undertaking that will require coordination with many partners. This grant will provide needed funds for an outreach coordinator to develop this initial year of workshops, web based programs, and displays at special events. The format can then be repeated in future years using the template created.

Anticipated courses will cover a variety of topics. Forest certification will be promoted through each event. All events planned and funded with this grant will have a "value of certification" section. This will highlight, what certification is, and the need for it. Certification will be promoted to a general audience through the FWAM website. A new page will be developed that positions FWAM as the leading non-profit organization promoting certification of forest lands. This will be designed to appeal to homeowners, landowners and many others concerned about the wood products and woods they see and use every day.
For a complete list, see the activities listing in the project table. A partial list is highlighted below that fit into performance measure 17.1:

- Call Before You Cut has been promoted as a source of free information for landowners interested in a timber sale. Packets have been mailed to over 1090 landowners covering a reported 124,798 acres. The grant will help fund companion workshops for past users of the program and promote new contacts. Foresters and professionally trained loggers or Master Loggers will be used to present the materials.
- Many forests are being inundated with invasive species in both rural and urban landscapes. Control programs will assist in reaching a diverse audience with a message regarding the need for active management to control unwanted plants to maintain a healthy forest.
- Currently, the Department of Conservation is working on a smart phone app to assist landowners in assessing the heath, wildlife and timber potential of their forests. Partners include the Missouri Tree Farm System and the Missouri ForestKeepers Network. The grant will assist us in promoting this new technology to engage landowners in their woods.
- In addition to traditional forestry programs, alternative forest product sessions will be held to engage landowners. Shiitake mushroom sessions will promote the hobby and alternative income value of this activity. A side benefit is increasing forest values by removing poorly formed trees for shiitake logs and providing growing space for preferred trees.

Performance measure 16.1 will also be fulfilled by providing training to foresters on the performance measures of SFI. While most foresters are aware of certification concepts in Missouri, few have direct in depth knowledge of the standards and certification process. This training would raise awareness of standards, chain of custody, and on-product labels.

A final objective is to provide training for "expanding the base" of certified landowners. This training will teach landowner demographics and attitudinal descriptions to effectively target receptive groups with outreach tools that will be discussed. This will be based on the Engaging Landowners Effectively web site coordinated by the Yale School of Forestry and Environmental Studies and the U.S. Forest Service's Family Forest research Center.

Project partners will provide the following:

- Funding sources include the Missouri Department of Conservation and the Forest and Woodland Association of Missouri
- In kind contributions in the form of presentations and promotions to partner members of the courses include:
    - The University of Missouri Center of Agroforestry produces the *Green Horizons* newsletter that reaches nearly 4,000 individuals
    - The University of Missouri Center of Agroforestry has expertise in alternative forest product presentations
    - Forest ReLeaf of Missouri and its highly regarded ForestKeepers network has outreach through a newsletter and web site potential to 3,000 members , including a core constituency that would benefit from the value of certification
    - The Missouri Department of conservation will provide technical expertise for programs

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Develop a year -long series of educational events for the 2014 calendar year that FWAM and partners can promote. To complete this objective, grant funds will be used in part to support an event coordinator position in FWAM. Other costs include facility rental when needed, materials and supplies.	Create a series of Call Before You Cut workshops that team together landowners with foresters and trained loggers to present on proper timber sales. Provide additional land transfer programs previously developed with University Extension Invasive species control and management workshops with appeal for urban and rural residents. Landowner training to conduct a self-assessment of their woodlands Growing and tending your forest workshop to promote implementation of sound management	Five workshops will be offered. These will target Call Before You Cut past contacts and promoted to new contacts. Two programs will be held Reaching 30 landowners. Three programs will be offered focusing on bush honeysuckle control with 40 attendees. Web based training developed and available on demand. Two sessions held for landowners.	Successful completion of the workshops and number of attendees. Successful completion of Two programs and number of attendees Successful completion of two programs and number of attendees Number of attendees. Successful completion of two programs and number of attendees Successful completion of two programs and number of attendees	Hiring and compensating FWAM coordinator to support development of workshops, conduct recruitment of attendees, arrange and set up workshop sites and facilitate delivery. $12,000 total for Goal 1.	MDC agency events involving 1-2 trained staff, 16 hours per staff member per event at $30/hr rate. Total for 17 workshops, tours programs and trainings described in Tangible Outcomes, in-kind contribution by MDC of $12,000. Support by Forest ReLeaf for outreach, including mailing lists, newsletter and website support: 8 hours per each of 17 events at $30/hr. Total in-kind contribution of $4,080. Editorial and marketing support from Missouri Center of Agroforestry's *Green Horizons.* Approximately $800. Management and other logistical support of project coordinator from FWAM staff and board: $12,000

	Local mill tours open to the general public to demonstrate the uses of Missouri wood. Grow non-timber forest products such as Shiitake mushrooms with an emphasis in forest sustainability. A general audience presentation on forest biodiversity and the value of good management	Two tours held, one sawmill and one secondary processor such as a cooperage. Two sessions held open to a general audience with interest. One session held to pilot the program and determine interest of the topic for a general audience.	Successful completion of two programs and number of attendees Successful completion of session and number of attendees		
Goal 2: Develop an "Understanding Certification" program for foresters and the public. Grant funds would pay fees for presenters to discuss certification standards.	Develop one program that discusses certification standards for foresters. Open to private consultants and state foresters. Develop a new page for the FWAM web site that promotes the value of certification for producers and consumers of wood products	Program delivery and 60 attendees anticipated. Page development.	Successful completion of session and number of attendees Page will be active by close of grant.	Hiring and compensating FWAM coordinator to support development of program, conduct recruitment of attendees, arrange and set up workshop sites and facilitate delivery. $4,000 total for Goal 2. FWAM website content: Contracted time of 16 hours at $40/hr. Total of $640.	Sessions delivered by MDC personnel: 2 staff, 16 hours per staff per session at $30/hr rate. Total for 1 session, in-kind contribution by MDC of $960. Support by Forest ReLeaf for outreach, including mailing lists and logistical support: 16 hours at $30/hr. Total in-kind contribution of $480. Editorial and marketing support from Missouri Center of Agroforestry's *Green Horizons.* Approximately $200. Management and other logistical support of project coordinator and website

					contactor by FWAM staff and board: $4,000
Goral 3: Expanding your base program to introduce foresters to new research for understanding and recruiting landowner participation in forestry programs.	Two - grow your base programs will be held in the 2013 calendar year.	Two sessions will be held to reach Department of Conservation staff and Missouri Consulting Foresters	Successful completion of two programs and number of attendees	Hiring and compensating FWAM coordinator to support development of program, conduct recruitment of attendees, arrange and set up workshop sites and facilitate delivery. $4,000 total for Goal 3.	Sessions delivered by MDC personnel: 2 staff, 16 hours per staff per session at $30/hr rate. Total for 2 sessions, in-kind contribution by MDC of $1,920. Management and other logistical support of project by FWAM staff and board: $4,000

Project Timeline

The project will begin July 1, 2013 and run until December 31, 2014. Forester training sessions will begin during the first six months of the project. These will include:

- Grow your base
- Understanding certification

A program coordinator will be hired by September 1, 2013. The primary objective will be to have a schedule of courses available by January 1, 2014. Brochures will be distributed in January to field offices and partner locations for distribution. The coordinator will line up presenters, locations, handle registration and other needed logistics.

A contractor will be secured by January 1, 2014 to develop a web page within the FWAM website to promote certification.

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	**$20,000** for coordinator		2 MDC staff for 17 events = **$18,080** Management and support from FWAM ED and Board =

			$20,000 Staff support from Forest ReLeaf = **$4,000**
Operating Costs			
Research Activities	Website development = **$600**		
Meetings	Meeting rooms for 17 sessions = **$1,700**		
Accommodations	Coordinator lodging **= $1,700**		MDC staff lodging while traveling to sessions = **$1,700**
Travel	Coordinator travel costs **= $2,000**		Travel for MDC staff = **$1,700**
Workshop food	**$1,700**		
Education & Outreach			
Communications	Advertising for each event = **$1,700 total**		Green Horizons editorial and advertising support = **$800**
Total	**$29,400**		**$48,200**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Lead Organization Name and Address	FPInnovations 570 Saint-Jean boulevard Pointe-Claire, Quebec, Canada H9R 3J9
Name, phone and email for Project Director	Mark Partington 514-782-4525 mark.partington@fpinnovations.ca
Lead Organizational Mission Statement	FPInnovations is among the world's largest not-for-profit forest research centers. It helps the forest industry develop innovative solutions based on the unique attributes of Canada's forest resources.
Lead Organization Annual Operating Budget	$80 million (organizational level) $15 million (divisional level)
Two references who can speak to the potential of the Project:	Tom Harris, Ontario Ministry of Natural Resources. 705-945-6656, tom.harris@ontario.ca Eric Young, Newfoundland Department of Natural Resources, Director of Forest Engineering, 709-637-2350 emyoung@gov.nl.ca

Confirmed Project Partners	Project Title	Amount Requested	Total Project Budget	Brief Project Summary	What element(s) of the SFI 2010-2014 Program does/do your Project address
FPInnovations J.D. Irving Ltd. ***If project proposal is successful, the government departments of New Brunswick (Natural Resources, Environment) and the Canadian federal department of Fisheries and Oceans Canada will be consulted.	Mitigating the environmental impacts of forest roads through the development of a forest road maintenance performance strategy.	$60 000 over 2 years	$158 000	Identification of performance indicators that predict the ability of forest road infrastructure to meet environmental protection requirements, i.e. stream connectivity, fish passage, water quality. The performance indicators will be used to develop a forest road maintenance implementation and best management strategy for industry and government forest road managers.	Obj.2.Forest Productivity Obj.3.Protection and maintenance of water resources Obj.10.Adherence to best management practices Obj.14.Legal and Regulatory Compliance Obj.15.Forest research, science and technology Obj.16.Training and education Obj.18.Public land management responsibilities Obj.20.Management review and continual improvement

Confirmed Project Partners	Primary Contact Name & Title Complete	Brief Summary of Individual and Organizations Qualifications and Experience
FPInnovations	Mark Partington Senior Researcher mark.partington@fpinnovations.ca 514-782-4525 FPInnovations 570 Saint-Jean boulevard Pointe-Claire, Quebec H9R 3J9	Mark is a registered professional forester (R.P.F.) in Ontario and a certified environmental professional (EP) with an undergraduate degree in Forestry and Environmental Management (B.Sc.F.) from the University of New Brunswick and a graduate degree in Natural Resource Sciences (M.Sc.) from McGill University. Mark has worked with FPInnovations for the past 15 years and is currently a Senior Researcher in the Resource Roads and Environmental Impacts Groups. His research is primarily focused on reducing the environmental impacts of forest operations including forest soil protection in harvest operations and water crossings and erosion control on resource roads. Mark is the author of numerous technical reports and best management practice documents as well as an extensive list of field-based training workshops to industry and governments across the country.
J.D. Irving Limited	Dwayne Prest Process Owner, Roads and Transportation prest.dwayne@jdirving.com 506-451-3133 J.D. Irving, Limited Woodlands Division PO Box 5777, 300 Union St Saint John, NB E2L 4M3	Dwayne is a graduate of the Forest Engineering program (B.Sc.F.E.) from the University of New Brunswick in 1997 and in 2012 completed his Executive MBA from the Richard Ivey School of Business of the University of Western Ontario. Dwayne has worked in various capacities for J.D. Irving, Limited – Woodlands Division in Nova Scotia and New Brunswick since 1998. Dwayne currently holds the position of Process Owner, Roads and Transportation for J.D. Irving Ltd.`s woodlands operations throughout Nova Scotia, New Brunswick and Maine. In this role, Dwayne`s primary responsibility is to develop, capture and transfer economic, environmental and operational best practices related to the company`s roads and transportation operations.

Project Details

The forest road network in Canada is extensive and is managed by various industry and government organizations who are conducting forest management in each of the provinces. The details regarding the environmental regulations and objectives that must be met in each of the provinces can differ, however the overall goal of environmental protection of water quality, fish habitat and water resources are commonly shared. The requirements to ensure that forest road construction, maintenance and management effects on aquatic environments are mitigated may require adherence to Canadian federal government legislation, provincial legislation as well as forest certification requirements such as those of the Sustainable Forestry Initiative.

The Canadian forest industry has experienced an unprecedented downturn beginning in the early 2000`s. The industry is just now beginning to emerge from this downturn which had resulted in a substantial number of mill closures, significant reductions in forest harvest wood volumes and loss of experienced industry, government and contractor personnel. During this period of reduced economic activity, the expenditures on road maintenance were significantly reduced as harvest levels were curtailed. The reduction in annual road maintenance budgets coincided with less roads being used and being assigned a temporary in-active status. As a result of this inactivity, the frequency in which road infrastructure inspections were performed was diminished to the point where it is thought there are many components of the Canadian forest road network that require immediate maintenance in order to ensure that environmental protection objectives are being met. This deficiency in road maintenance in recent years was recently highlighted by the Forest Practices Board of British Columbia roads and bridges audit report (http://www.fpb.gov.bc.ca/SR43_Road_and_Bridge_Practices_Audit_Findings_2005-2011.htm) , which in reference to the frequency of safety and environmental non-compliance in 2010 and 2011, stated that "…*were five times more significant … in those two years than in the preceding five years combined.*" and went on to state that, "*We've also observed a potential trend of reducing costs through cutting corners, as evidenced by decreased overall maintenance work and using few or no culverts in road construction."*

The Canadian forest industry is beginning to emerge from the economic downturn and forest harvest volumes are expected to increase. The increased harvest levels brings a higher volume of forest road use and the need that these roads offer safe and efficient travel for road users as well as meeting the necessary goals and objectives of environmental performance. The backlog of road infrastructure inspection and maintenance interventions that are needed will require a strategy to ensure that the highest risk areas are maintained first and if necessary brought back into environmental compliance. The condition of existing road infrastructure assets must be assessed based on infrastructure performance indicators in order to develop predictive maintenance models that will minimize environmental risk.

We are proposing to develop forest road infrastructure (principally water crossings) environmental performance indices that can be used as a component of an asset management or a road maintenance and best management strategy. These indices would be developed by conducting a series of inspections on various segments of forest road infrastructure (principally water crossings but also other features such as ditches etc.). The data collected during the

inspections would be analyzed to identify the top factors which most accurately predict or identify the ability of each forest road infrastructure component to meet the required environmental performance levels. The performance indices would then be validated through the completion of further field inspections. Once completed the outcomes of this project will be initially shared with the project partners and will then be widely disseminated to the forest industry and governments through newsletters, reports, webinars and possible workshop presentations.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Develop forest road infrastructure inspection checklist	Development of a field-based checklist for water crossings and other segments of forest road infrastructure. Includes literature review.	A detailed field inspection checklist that provides for collection of a variety of information related to identified segments of forest road infrastructure.	An easy-to-use field ready inspection checklist that can be widely applied and provides for effective data collection.	$8 000	$13 000
Goal 2: Conduct forest road infrastructure inspections	Conduct inspections of forest road infrastructure.	A robust database of completed field inspections including indicators of environmental performance.	A well-populated database of representative road infrastructure that can be used for data analysis.	$24 000	$32 000
Goal 3: Conduct data analysis	Data analysis of information collected during field inspections.	Identification of the significant factors that influence the environmental performance of identified road infrastructure segments.	Recommendations of significant factors that affect the environmental performance.	$10 000	$ 38 000
Goal 4: Field validation of data analysis results.	Perform field validation of the performance factors identified in the data analysis.	Completed field inspections of the principle performance factors.	Validation of data analysis results and ranking of indices.	$10 000	$15 000
Goal 5: Report project outcomes.	Disseminate project results to industry and government forest road managers.	Completion and delivery of reports and presentations.	Reporting completed.	$8 000	

Project Timeline

Project Goals	Activities	Activity Start	Activity End
Goal 1: Develop forest road infrastructure inspection checklist	Development of a field-based checklist for water crossings and other segments of forest road infrastructure. Includes literature review.	May 2013	June 2013
Goal 2: Conduct forest road infrastructure inspections	Conduct inspections of forest road infrastructure.	June 2013	November 2013
Goal 3: Conduct data analysis	Data analysis of information collected during field inspections.	December 2013	April 2014
Goal 4: Field validation of data analysis results.	Perform field validation of the performance factors identified in the data analysis.	May 2014	August 2014
Goal 5: Report project outcomes.	Disseminate project results to industry and government forest road managers.	August 2014	December 2014

Project Budget

Expenditure	Amount requested from SFI	Matching Funds[1]	In-Kind Contributions[2]	Contributing partner	Total
Staff Salary and Benefits	-		60 000	FPInnovations- 40000 JD Irving - 20 000	60 000
Operating Costs					
Research Activities	48 000		25 000	FPInnovations – 16 000 JD Irving – 9000	73 000
Meetings			5 000	FPInnovations - 4000 JD Irving - 1000	5 000
Travel	4 000		8 000	FPInnovations - 4000 JD Irving - 4000	12 000
Education & Outreach	4 000				4 000
Communications	4 000				4 000
Total	**60 000**	**-**	**98 000**		**158 000**

Notes:

[1] – If the project is successful, additional funding from the Natural Sciences and Engineering Research Council of Canada (NSERC) will be pursued for the possible hiring of a university summer student.

[2] – If the project is successful, additional in-kind contributions are anticipated by the New Brunswick Departments of Natural Resources and Environment and the Canadian federal department of Fisheries and Oceans Canada.

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, **Mark Partington, Senior Researcher** as a representative of **FPInnovations** and a Partner in Mitigating the environmental impacts of forest roads through the development of a forest road maintenance performance strategy, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by **FPInnovations** to sign this agreement.

Signed:

Name

Senior Researcher
Title

FPInnovations
Organization

March 18, 2013
Date

SUSTAINABLE FORESTRY INITIATIVE

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Dwayne Prest, Process Owner – Roads and Transportation, as a representative of J.D. Irving, Limited – Woodlands Division and a Partner in "Mitigating the Environmental Impacts of Forest Roads", hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by J.D. Irving, Limited – Woodlands Division to sign this agreement.

Signed:

Dwayne Prest

Name

PROCESS OWNER - ROADS AND TRANSPORTATION

Title

J.D. IRVING, LIMITED

Organization

MARCH 15, 2013

Date

FPInnovations

570 St-Jean Blvd
Pointe-Claire, Québec H9R 3J9
T 514 630-4100
www.fpinnovations.ca

March 18, 2013

Eli Weissmann
Senior Director of Conservation Partnerships
Sustainable Forestry Initiative Inc.
900 17th Street, NW, Suite 700
Washington, DC 20006

Dear Eli,

FPInnovations is registered as a Not-for-profit corporation for scientific research through Industry Canada.

As such, FPInnovations members qualify for Canadian scientific research and development tax credits.

The Corporation Number is: 437476-2

For further questions please contact me.

Sincerely,

FPInnovations

Kieran Mallette, CPA, CMA
Contrôleur, Comptabilité / Controller, Financial Accounting
570, boul. Saint-Jean, Pointe-Claire (QC) H9R 3J9
☎ 514-782-4568 🖷 514-630-4105
✉ kieran.mallette@fpinnovations.ca

Proposal to SFI's
Conservation & Community Partnerships Grant Program

Organization Information:

Lead Organization:
The Land Trust for Tennessee
209 10th Avenue South - Suite 511
Nashville TN, 37203
(615) 244-5263
www.landtrusttn.org

Project Director:
Chris Roberts
Director of Conservation Programs
The Land Trust for Tennessee
(931) 636-4354 or (615) 244-5263
croberts@landtrusttn.org

Mission Statement:
The Land Trust's Mission is to preserve the unique character of Tennessee's natural and historic landscapes and sites for future generations. The Land Trust for Tennessee was founded in 1999 by then-mayor and former Governor Phil Bredesen, and a group of citizens concerned about the rapid rate of development in Tennessee and its impact on our natural and historic resources. Since that time, The Land Trust has conserved more than 86,000 acres statewide, most of which is working forestland.

Fiscal Year 2013 Annual Operating Budget: $1,455,000

References:
Herb Paugh
Tennessee Division of Forestry
(615) 837-5311
Herb.Paugh@tn.gov

Nate Wilson
The Forest Guild
(931) 598-1268
wnwilson@sewanee.edu

Project Overview:

Project Partner: LP

Project Title: Sustainable Forest Management and Conservation Practices for Native Hardwood Forests

Amount Requested: The Land Trust for Tennessee is pleased to submit a two-year grant request for **$30,000** ($15,000 per year) to SFI's Conservation and Community Partnerships Program.

Total Project Budget: The two-year total budget for the project is $60,000 (annual budget for this project is approximately $30,000). Additional funds for this project are provided by The Land Trust for Tennessee and the Louisiana Pacific Foundation.

Brief Project Summary: The Land Trust for Tennessee is currently working on several large working forest conservation projects in Tennessee. Many of these projects involve state, federal, and nonprofit partners. In order to complete many of these projects, funding is needed for transaction assistance (surveys, environmental assessments, title work, etc.). The Land Trust has secured funding from other sources to cover most of our staff time; however, these funds can not be used for transaction assistance.

Project Partner:

Louisiana Pacific Corporation, SFI Certified

Contact Person: David Hudnall
Corporate Forest Resources Environmental Manager
Phone: 615-986-5796
Email: David.Hudnall@lpcorp.com

David has a B.S. in Forestry from Stephen F. Austin State University. He is LP's Corporate Forest Resources Environmental Manager and he also leads LP's Public Policy Council. David currently serves as a forestry-issues expert within the corporation, representing the company on pertinent environmental issues relating to forestland regulations and land use, including customer, lender and other 3rd party stakeholder concerns. He helps to assure the corporation's forestry group is well represented at the state & national levels, and that they have input into potential changes in sustainable forestry, green building and product labeling programs, and to assure these issues are appropriately communicated throughout the corporation.

Louisiana-Pacific Corporation (LP) is engaged in the manufacturing of building products. During the year ended December 31, 2010, the Company owned 23 facilities located in the United States and Canada. The Company also owns two facilities in Chile and acquired a 75% ownership

interest in the Brazilian facility. The Company also participates in the joint venture operation that produces cellulose insulation. The products of the Company are used in new home construction, repair and remodeling, and manufactured housing. The Company operates in three business segments: oriented strand board (OSB), siding and engineered wood products (EWP). All of the mills and forests that LP directly manages in North America are SFI certified. Since most of the commercial forestland in the U.S. isn't certified, LP has turned to SFI because it includes process requirements to help ensure this vast amount of wood from private lands comes from sustainably managed forests. LP's SFI-certified procurement process helps to ensure that timber comes from responsibly managed land. Since March of 2009, LP has added dual SFI and PEFC chain of custody certification to eleven of its Engineered Wood Products, Siding and OSB mills - keeping labeling options open for LP customers.

Project Details:

Project Goals:

1. Protect working forests by providing financial transaction assistance to private forest landowners interested in donating conservation easements.
2. Protect working forests by providing financial transaction assistance on large scale forest conservation projects The Land Trust is coordinating with partner organizations that involve either acquiring lands in fee or purchasing conservation easements.

Applicability to SFI:

Protecting working forests through permanent conservation easements or purchasing lands in fee meet the needs of the present without compromising the ability of future generations to meet their own needs (*Principle 1. Sustainable Forestry*). Protecting working forests also maintains ecosystem services and promotes soil conservation, air and water quality protection, biological diversity, wildlife and aquatic habitat, recreation and aesthetics. With each working forest conservation project, The Land Trust and partners will ensure buffer areas along streams and waterways are maintained (*Principal 3. Water Resources*). We will also identify any special community types or rare species on each property, and ensure additional protective measures are in place for biological diversity (*Principle 4. Biological Diversity*). In addition, aesthetics (*Principle 5. Aesthetics and Recreation*) are one of the primary conservation values the public sees from a road or waterway, and we work closely with landowners and partner agencies to ensure forest aesthetics are maintained where possible.

Activities:

With LP as our partner in 2011 and 2012, we focused on education and outreach, writing forest stewardship plans, and building a pipeline of working forest conservation projects. With LP again as our partner in 2013 and 2014, we will focus on moving several of these working forest conservation projects forward toward completion. Activities include but are not limited to:

1. Coordinating communication amongst partner organizations interested in protecting working forests for a variety of forest resources. These partners include but are not

limited to Tennessee Division of Forestry, Tennessee Wildlife Resources Agency (TWRA), USDA Forest Service, US Fish and Wildlife Service, and Tennessee Department of Environment and Conservation.

2. Providing professional services and financial transaction assistance to private forest landowners interested in donating working forest conservation easements, selling conservation easements, or selling their lands in fee.

Tangible Outcomes:

The impacts of this project have already been significant. Going forward, having funds for transaction assistance will create the leverage to turn potential projects into permanently protected working forestlands. Land conservation coupled with sustainable forest management will benefit the residents and visitors of Tennessee immediately and for many generations to come. Over the two year period of this grant, we expect to complete at least two working forest conservation projects. The following projects are in various stages of negotiations:

- Ø RLH Winchester in Franklin County (8,100 acres): The Land Trust is partnering with The Conservation Fund in an effort to acquire this large contiguous tract of forestland. The partnership is considering options to purchase the property and sustainably manage the forest resources until the property can be transferred to the US Fish & Wildlife Service. The US Fish and Wildlife Service is finalizing plans for the new Paint Rock River National Wildlife Refuge, which should be completed by June 2013. The headwaters region of the Paint Rock River watershed contains one of the most biologically diverse assemblages of freshwater fish and mussel populations in North America.

- Ø Carter Heirs in Franklin County (5,000 acres): This project ranked #17 nationally with the USDA's Forest Legacy Program for FY 2013. The Land Trust is partnering with The Nature Conservancy on the project, and we are hopeful that funding will be available to purchase a working forest easement on this tract of land that adjoins Bear Hollow Mountain Wildlife Management Area.

- Ø Sherwood Mine in Franklin County (4,338 acres): The Land Trust is partnering with The Conservation Fund to protect this property that adjoins Franklin State Forest. The partnership is considering options to purchase the property in fee and sustainably manage the forest resource prior to transferring ownership to the TN Division of Forestry and possibly TWRA. A portion of the property contains the federally-listed painted disc snail.

- Ø Cunningham Heirs in Van Buren and White Counties (3,500 acres): The Land Trust, with assistance from Tennessee Parks and Greenways Foundation, is facilitating the purchase of 3,500 acres by TWRA. The property will be used for sustainable forest management and hunting by TWRA.

- Ø Corum Heirs in Franklin County (17,000 acres): Similar to the RLH Winchester property, The Land Trust is partnering with The Conservation Fund as part of the proposed Paint

Rock River National Wildlife Refuge. The partnership is in the early stages of considering options to protect the property.

- Stone Mountain in Johnson County (4,100 acres): The Land Trust is working with a private landowner to donate a working forest conservation easement on the property. The property is approximately 1 mile east of the Doe Mountain property The Land Trust worked on under the previous grant.

Measures of Success:

Some of the benefits of this project will be easier to measure than others. The number of working forest acres protected is fairly straightforward and easy to measure. By contrast, the economic benefits to the local forest products industry will be harder to measure.

As one of the leading conservation organizations in the state of Tennessee, we are especially concerned with parcelization and fragmentation as well as forest health and the wide ranging effects on the conservation values and benefits derived from forested landscapes. These conservation values include timber products, clean water, recreation, aesthetics and wildlife habitat. The capacity of the forest to provide these benefits may be lost completely if appropriate strategies are not implemented.

As more and more land is bought for development, forest management opportunities for family forest owners continue to decline in many parts of Tennessee. Forest fragmentation and parcelization along with declining forest health will have significant impacts on not only the forest products industry in the near future, but on conservation as well. With over 80% of Tennessee's forests in non-industrial private ownership, the local forest products industry is completely dependent on private landowners willing to manage their forest resources.

Grant Funds:

The partners on this project bring a wide range of skills and experience. By working together, we can better leverage the resources of each organization to meet the goals and objectives of this project. We believe that sustainable forest management and conservation provide the perfect forum for our collaboration.

The Land Trust maintains a similar grant agreement with the Tennessee Department of Agriculture (TDA). TDA annually provides funds to The Land Trust to protect working farms. These funds offset the out-of-pocket costs associated with permanent conservation agreements. In many cases, the landowner believes that a conservation agreement is a critical part of their long-range plan for the property, but they simply cannot afford to pay for transaction related costs typically needed to complete the project. Working together, The Land Trust and TDA have been able to permanently protect thousands of acres of working family farms.

By covering a significant part of the costs associated with creating working forest conservation agreements, SFI will help to ensure that Tennessee will always have productive and sustainable hardwood forests. The benefits of this project will be felt by future generations who will be able

to harvest high quality forest products and thus stimulate the local economy and retain a professional workforce.

Project Timeline:

Year 1:

- Complete at least one private and one large-scale working forest conservation project

Year 2:

- Complete at least one private and one large-scale working forest conservation project

Project Budget:

The Land Trust for Tennessee is pleased to submit a two-year grant request for $30,000 to the SFI Conservation and Community Partnerships Program. In general, we anticipate the following breakdown of $15,000 per year; with no more than 10% of SFI grant funding going to staff salary or benefits. Additional funds for this project are provided by The Land Trust and project partner the Louisiana Pacific Foundation.

Annual budget $30,000, total for two-year period - $60,000:

Annual Expenditure	SFI Grant Request	Land Trust and LP (In-Kind)
Staff Salary & Benefits	$1,500	$23,500
Education & Outreach	$500	$500
Easement Prep &Travel	$1,000	$1,000
Project Assistance	$12,000	
Total	**$15,000**	**$25,000**

Conclusion:

Working together under this program, we can have a significant impact on sustainable forest management across the state of Tennessee. With SFI's support of our Sustainable Forest Management and Conservation Practices for Native Hardwood Forests Project, The Land Trust and LP look forward to providing technical assistance and on-the-ground services to forest landowners, and we will focus on moving several working forest conservation projects forward toward completion.

SUSTAINABLE FORESTRY INITIATIVE

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Chris Roberts, Director of Conservation Programs, as a representative of The Land Trust for Tennessee and a Partner in Sustainable Forest Management and Conservation Practices for Native Hardwood Forests, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by The Land Trust for Tennessee to sign this agreement.

Signed:

Name

Director of Conservation Programs
Title

The Land Trust for Tennessee
Organization

3/18/2013
Date

SUSTAINABLE FORESTRY INITIATIVE

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, David Hudnall, Corporate Forest Resource Environmental Manager, as a representative of LP Building Products and a Partner in Sustainable Forest Management and Conservation Practices for Native Hardwood Forests, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by LP Building Products to sign this agreement.

Signed:

David Hudnall
Name

Corporate Forest Resource Environmental Manager
Title

LP Building Products
Organization

3/18/13
Date

IRS Department of the Treasury
Internal Revenue Service
P.O. Box 2508
Cincinnati OH 45201

In reply refer to: 0248467585
Oct. 18, 2011 LTR 4168C E0
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LAND TRUST FOR TENNESSEE INC
% JEAN NELSON
209 10TH AVE SOUTH STE 511
NASHVILLE TN 37203

023914

Employer Identification Number: 62-1770549
Person to Contact: Mrs Pamela Skiles
Toll Free Telephone Number: 1-877-829-5500

Dear Taxpayer:

This is in response to your Oct. 06, 2011, request for information regarding your tax-exempt status.

Our records indicate that you were recognized as exempt under section 501(c)(3) of the Internal Revenue Code in a determination letter issued in April 1999.

Our records also indicate that you are not a private foundation within the meaning of section 509(a) of the Code because you are described in section(s) 509(a)(1) and 170(b)(1)(A)(vi).

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Please refer to our website www.irs.gov/eo for information regarding filing requirements. Specifically, section 6033(j) of the Code provides that failure to file an annual information return for three consecutive years results in revocation of tax-exempt status as of the filing due date of the third return for organizations required to file. We will publish a list of organizations whose tax-exempt status was revoked under section 6033(j) of the Code on our website beginning in early 2011.

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Oct. 18, 2011 LTR 4168C E0
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LAND TRUST FOR TENNESSEE INC
% JEAN NELSON
209 10TH AVE SOUTH STE 511
NASHVILLE TN 37203

If you have any questions, please call us at the telephone number shown in the heading of this letter.

Sincerely yours,

S. A. Martin, Operations Manager
Accounts Management Operations

Grant Application

Organization Information

Lead Organization Name and Address	Middle Nolichucky Watershed Alliance 311 Tusculum Blvd. Suite D Greeneville, TN 37745
Name, phone and email for Project Director	Paul Hayden (423) 552-0774 pehaydentn@yahoo.com
Lead Organizational Mission Statement (25 words or less)	Our mission is to educate and involve the community through establishing public-private partnerships to develop and implement action plans to preserve, protect and improve the watersheds in the Middle Nolichucky Watershed.
Lead Organization Annual Operating Budget	$25,870.00
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	W.T Daniels, Mayor City of Greeneville (423) 639-7105 Greene County Soil Conservation District 214 North Church Street, Suite 200 Greeneville, TN #7745 433-638-4771 X 3

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address
Tusculum College, Greene County Soil Conservation District, Hydrocycle Engineering, Niswonger Foundation	**College Creek Riparian Restoration** Approximately 1/4 mile (both Banks) of College Creek as it passes through the college campus.	$12,000 (70%)	$17,140	The project will focus on critical areas in the College Creek Watershed, a 303(d) listed stream. MNWA will partner with community organizations to ensure successful implementation of Best Management Practices. The practice will include riparian zone rehabilitation of this section of College Creek.	To protect water bodies and riparian zones, and to conform with best management practices to protect water quality

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Tusculum College	Dr. Nancy Moody President	nmoody@tusculum.edu (423) 636-7300, ext. 5301 60 Shiloh Road Greeneville, TN 37743	Tusculum College provides a liberal arts education in a Judeo-Christian and civic arts environment, with pathways for career preparation, personal development and civic engagement. **Tusculum College** is a coeducational private college affiliated with the Presbyterian Church (USA), with its main campus in Tusculum, Tennessee, United States, a suburb of Greeneville. It is Tennessee's oldest college and the 23rd-oldest operating college in the United States.
Greene County Soil Conservation District	John Waddle, Jr.	(423) 638-4771, ext. 3 susie.wilson@tn.nacdnet.net 214 North College Street, Suite 200 Greeneville, TN 37745	Soil Conservation Districts serve landowners by providing assistance with the installation of conservation practices, to prevent soil erosion, improve Tennessee's water quality, and promote the stewardship of our natural resources.
HydroCycle Engineering	Tim Ormond Owner and Principal Engineer	tormond@hydrocycle-eng.com (828) 255-5530 HydroCycle Engineering, PC 16 Broad Street Asheville, NC 28801	Tim Ormond, P.E. has over two decades experience as a civil engineer and project manager specializing in water resources and environmental engineering, with a focus on hydrology, stormwater management, low impact development, and floodplain management. Mr. Ormond brings national expertise to the region and possesses broad technical experience ranging from regional level planning and computer modeling to detailed engineering and design. While working for a multi-national consulting firm for fourteen years, Mr. Ormond served as the lead engineer and project manager on over 50 complex, multi-discipline water resources and environmental projects throughout the United States, including innovative stormwater projects in the Lake Tahoe watershed, which has some of the most stringent water quality protection standards in the nation.
Niswonger Foundation	Linda Irwin	linda.irwin@niswongerfoundation.org	Founded by Scott Niswonger, the

	Vice President	(423) 798-7837 The Niswonger Foundation 16 Gilland Street Greeneville, TN 37743	Niswonger Foundation operates under the philosophy of "Learn, Earn and Return". Using the innovative model of now having a private, for-profit logistics company, Landair Transport, support a not-for-profit educational foundation, the goal of bringing rigorous, relevant, and cost effective programs to public education became a mission. Fundamental to the success of the Niswonger Foundation has been a clear focus on removing constraints to educational innovation and problem solving, thus allowing local school systems to better provide for student needs. By building school programs that are research-based and sustainable, the Niswonger Foundation has become a recognized voice for educational reform in the State of Tennessee, while nurturing the next generation of leaders.

Project Details

1. The mission of the Middle Nolichucky Watershed Alliance is to educate and involve the community through establishing public-private partnerships to develop and implement action plans to preserve, protect, and improve the watersheds in the Middle Nolichucky region. We accomplish our goals in a variety of ways such as our Adopt-A-Stream Program, environmental education and outreach, and designing and implementing best management practices for the streams in our watershed. Our work primarily takes place in Greene County, Tennessee, an area that has been largely under served in the efforts of conservation until recently. Currently, out of 85 streams in Greene County; 56 of them are on the EPA's 303 d list, meaning they are impaired And as person who works in conservation in Tennessee know, a vegetated riparian buffer zone is crucial to the health of a stream and the preservation of habitat.
2. The Middle Nolichucky Watershed Alliance will clear all invasive plants from the banks of this section of stream and plant trees along 2,400 feet of College Creek in an effort to restore native and natural habitat and to assist stream bank restoration efforts in Greene County. In addition to our riparian restoration efforts, we will also seek to educate local students as to why we are restoring the stream banks and why vegetated riparian zones are crucial to the health of the stream.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:	Riparian zone planting (work)	Improvement of 1/4 mile of College Creek	Square feet of riparian buffer planted	$12,00	$5,140

Project Timeline

It is planned that the project will be completed within one and one-half year beginning in late May 2013 and completing in September 2014. The project will be conducted in three phases (Phase 1 will consist of removing all undesirable plant matter along this section of creek and repairing erosion problems with

stone support where needed. Phase 2 will begin in late August and conclude in late October. During this phase plants such as Button Bush, and Red Stem Dogwoods will be planted along the bank.

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits Director of MNWA responsible for monitoring schedule and cost of the project.	$0.00 All paid staff are paid as independent contractors. There are no direct employees.		
Operating Costs			
Planting of 2,400 feet/7.14 a foot	$17,140	$5,140	College Student volunteers. Labor to plant trees and clear brush. GCSCD help identifying invasive plants.
Meetings	$0.00		
Travel	$0.00		
Education & Outreach	$300.00	$300.00	Staff and student leaders leading volunteer teams in on-the-site training of volunteers.
Communications	$0.00		
Total	**$17,440**	**$5,440**	**Approximately 1000 volunteer hours from College Students.**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Niswonger Foundation - $5,440.

Tusculum College Approximately - 1000 hours of volunteer time.

Greene County Soil Conservation District - Assistance in identifying invasive plants.

Lead Organization Name and Address	Mississippi State University
Name, phone and email for Project Director	Dr. Scott A. Rush
Lead Organizational Mission Statement (25 words or less)	Mississippi State University is a public, land-grant university providing access and opportunity to students and to offer excellent programs of teaching, research, and service.
Lead Organization Annual Operating Budget	$248,985,998
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1) Mr. Christopher Hart, Plum Creek Timber Company, kit.hart@plumcreek.com, 601-933-9207 2) Mr. Brian J. Kernohan, Hancock Timber Resource Group bkernohan@hnrg.com, 231-429-3702

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
1) Mississippi State University 2) The National Council for Air and Stream Improvement, Inc. 3) Weyerhaeuser Inc.	Post-fledgling ecology in managed pine stands: coordinating adjacency to promote productivity	$56,688	$56,688	This project will evaluate the role of stand adjacency in supporting avian productivity and sustainability on selected sections of industrially managed pine forests in Mississippi. Research results can be used to improve biological diversity and to promote conservation of biological diversity - requirements of SFI forest certification.	The project will support requirements in the SFI 2010-2014 Standard directed at wildlife and biodiversity and stand adjacency including: Indicators 4.1.1, 5.3.1, 5.3.3, and 8.1.1.

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
National Council for Air and Stream Improvement, Inc.	Dr. T. Bently Wigley	wigley@clemson.edu tel: (864) 656-0840 *National Council for Air and Stream Improvement, Inc.* *PO Box 340317* *Clemson, SC 29634-0317*	The National Council for Air and Stream Improvement, Inc. (NCASI) is an independent, non-profit organization whose mission is to serve the forest products industry as a center of excellence for providing technical information and scientific research needed to achieve the industry's environmental goals and principles, including those related to conservation of biological diversity in managed forest landscapes. NCASI has supported a series of collaborative partnerships with Mississippi State University to address this topic including pending work with Drs. Rush and Martin focusing on avian biodiversity and productivity relative to stand adjacency in managed pine forests.
Weyerhaeuser Company	Dr. Darren Miller	darren.miller@weyerhaeuser.com tel: (662) 245-5249 *Weyerhaeuser Company* *P.O. Box 2288, Columbus, MS 39704* *Office (662)-245-5249*	Weyerhaeuser Company owns and manages over 5 million acres of forest in the southeastern United States. Weyerhaeuser manages forests that provides sustained yield of forest products while conserving water, soil quality and wildlife habitat. Weyerhaeuser has enjoyed a 40+ year biodiversity research partnership with Mississippi State University. This currently includes collaborative research with Drs. Rush and Martin. This supported research, focused on avian biodiversity and productivity relative to stand adjacency, integrates and compliments many research features outlined in this SFI proposal.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:	Measure nest and post-fledging survival of birds. Measure habitat use and movements of songbirds relative to stand adjacency and habitats characteristics.	Measures of bird vital rates (nest and fledgling survival). Assessments of movements and habitat use.	Data collection on targeted life stages and at levels consistent with study design.	$55,188.00	$20,993 cost share from Mississippi State University $142,427 cost share from NCASI and Weyerhaeuser
Goal 2:	Relate nest and fledgling survival to habitat and stand age adjacency	Derived demographic data will be used to parameterize spatially-explicit individual-based models for a target songbird. Simulations will be conducted to explore how songbird population may respond to different stand adjacencies within managed forest landscapes. Developing supporting documentation and publish results.	Empirical assessments and model development relating demographics and population stability with best management practices centered on stand adjacency.	$1,500.00	

Project Timeline

Task	2014				2015			
	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
Hire Field Technician								
GIS Work								
Nest Searching								
Radio-telemetry Work								
Collect Habitat Metrics								
Annual Report								
Final Report and Publication Development								

Project Budget

	Year 1 (2014)	Year 2 (2015)
A. SALARIES AND WAGES:		
Scott Rush, Assistant Professor (1/2 month salary @ $72,500 12-month base)	3020.8	3020.8
James Martin, Associate Professor (1/2 month salary @ $73,587.5, 12-month base)	3066.2	3066.2
Technician ($10 per hour * 40 hrs / week * 3 months)	4800.0	4800
B. FRINGE BENEFITS		
Faculty/Staff at MSU rate 34.78%	2117.0	2117.0
Technician at MSU rate 8.64%	415.0	415.0
D. EXPENDABLE SUPPLIES & EQUIPMENT (itemize)		
40 Lotek PicoPip Ag 337 radio-transmitters @ $195 / each	7800.0	7800.0
3 Telonics flexible H radio-antennas - to be used with receivers ($200 / each)	600.0	
Antenna Accessories	150.0	
Field Supplies (includes mist nets, field books, color bands, mist net poles, etc.)	1000.0	1000.0
2 Lotek Biotrack Receivers @ $3000 / each	6000.0	
E. TRAVEL (itemize)		
Travel to study site and accommodations	2000.0	2000.0
F. PUBLICATION & DOCUMENTATION COSTS		1500.0
TOTAL DIRECT COSTS	30969.0	25719.0

Total Project Costs $56,688.0

Project Title: Post-fledgling ecology in managed pine stands: coordinating adjacency to promote productivity

Dr. Scott Rush, Department of Wildlife, Fisheries & Aquaculture, Mississippi State University (srush@cfr.msstate.edu); Phone: 662-325-0762
Dr. James Martin, Department of Wildlife, Fisheries & Aquaculture, Mississippi State University (jmartin@cfr.msstate.edu); Phone: 662-325-7607

Project Background

Third party, sustainable forestry certification standards such as the Sustainable Forestry Initiative (SFI), promote forestry practices designed to ensure ecosystem health and integrity for future generations. These standards require managers to promote and contribute to conservation of biological diversity. Under performance measure 5.2 of the 2010–2014 SFI standard program, participants are also required to manage visual quality of landscapes by limiting clearcut size to a mean of 50 ha (120 ac). Performance measure 5.3 includes an adjacency constraint that specifies that regenerating trees be 1.5 m (5 ft) in height or 3 yrs. of age prior to clear-cutting adjacent stands (SFI 2010). Although designed to protect visual quality, implementation of these two performance measures can lead to dynamic landscapes that provide a diversity of habitat types, and presumably maintains/enhances biodiversity in managed pine systems (Miller *et al*. 2009). However, there is limited information on response of biological communities to stand adjacencies that may result from implementation of these SFI indicators.

Studies show that working forest landscape characteristics influence bird communities (Tews *et al*. 2004) and that managed pine landscapes clearly contribute to avian species conservation (Miller *et al*. 2009). Consequently, it is important to understanding how forest management decisions and adjacency guidelines influence bird community dynamics. Ongoing research by MSU, NCASI, and Weyerhaeuser will document how bird occupancy, relative abundance, and nest success relate to different stand adjacencies in a working forest. However, monitoring species diversity and nest success alone can leave undervalued the influence of forest management on avian populations (Anders and Marshall 2005). One critical, but often overlooked aspect of avian demographics is fledgling survival (Schmidt *et al*. 2008, Rush *et al*. 2009). Consequently, it is important to understanding how forest management decisions and adjacency guidelines influence bird community dynamics. We propose to complement ongoing research mentioned above by MSU, NCASI, and Weyerhaeuser by investigating how different stand adjacencies implemented to meet the SFI adjacency standard, influence the survival of a songbird during the nesting and post-fledging periods.

Project Goal

The overall goal of this project is to document how different forest stand adjacencies resulting from SFI performance measure 5.3 (adjacency constraint) relate to avian biodiversity (funded by Partners) and reproductive output. This goal integrates two of the five categories listed in the RFP: (1) working forests and (2) wildlife and biodiversity. ***This work will be examine the intersection between healthy, managed forests, and wildlife habitat. It will also promote and illustrate—and perhaps improve—wildlife habitat practices as suggested by SFI Standard requirements.*** This project will result in the development of forest-management practices that improve timber production while enhancing wildlife habitat. Such tangible results will include understory management prescriptions that promote the sustainable forests, meeting the goals of ecosystem conservation.

Our strategies to achieve the goal are:

1) Assess patterns of nest success in relation to stand adjacency at three spatial scales: plot, stand, and landscape. Drawing on previous research conducted within the study region we selected Indigo Bunting (*Passerina cyanea*) as the focal species (see Iglay *et al*. 2012 for details). Indigo Bunting, a species most often affiliated with early successional habitats, may suffer negative edge effects during the nest and post-fledging periods (Dearborn *et al*. 1998).
2) Use radio-telemetry to assess movements, habitat use and survival of Indigo Bunting during the first 3 weeks post-fledging.
3) Use empirical data derived in objective 1 to develop spatially-explicit habitat relationship models for Indigo Buntings.
4) Evaluate potential implications of different stand adjacencies at the landscape scale for songbird populations within managed forest landscapes.

Study Design

We will concentrate our efforts on two dominant stand types based on vegetation community composition and structure:

(1) Newly planted, open-canopy plantations (e.g., < 3 years old) —stands characterized dominated by herbaceous vegetation and young pine trees pre-canopy closure.

(2) Young, open-canopy plantations (e.g., 3 years old or 1.5 m tall) — these stands are similar to # 1, but represent stands that barely meet the thresholds set for the SFI adjacency criteria.

(3) Older thinned plantations (> 6 years post-thin) —characterized by semi-closed pine canopy of mostly saw timber, moderate shrub component, and moderate understory vegetation.

To accomplish the aforementioned objectives we will apply the following criteria in selecting study areas: (1) industrial timberland managed under SFI guidelines; (2) stands > 25 acres of the three types described above (*newly planted, open-canopy plantations and older thinned plantations*); (3) mostly contiguous timber company ownership to reduce confounding effects of surrounding landscape; and (4) an area conducive to field study (i.e., accessible, possible field housing, etc.).

Our experimental unit will consist of a pair of stands, specifically: (1) a newly planted stand paired with a young, open-canopy plantation, (2) a newly planted stand paired with an older thinned stand. Thus, two combinations of stand types will be used (numbers correspond to list above): 1-2, 1-3. The 1-2 combination represents a lowest-contrast stand adjacency that fulfills SFI indicator 5.3.3 whereas the 1-3 combination represents a higher-contrast stand adjacency.

Edges between all paired stands will be standardized to only include fire breaks, 2-track roads with infrequent traffic (i.e., not capital or paved roads), or other edges as determined by stand boundary. Pairs will be selected at random from a population of stands within the study area. Stand size will be standardized among the combinations during the initial design phase using GIS. We will select four replicates of each pair combination (i.e., experimental unit) within each study area (n = 2 pair combinations * 4 replicates = 8 experimental units).

Bird Sampling

We will conduct nest searches within each stand using a combination of opportunistic search methods. Once located, nests will be monitored every three days to determine the fate of the nest and to interpret nesting phenology. Nestlings will be banded on day 9 (posthatch).

Our study design will focus on 8 experimental units per year of study. Within each of these 8 experimental units, 5 nestlings of age 9 days posthatch will be outfitted with radio-transmitters, reflecting 40 radio-transmittered birds per year (n = 80 over 2 years). To ensure independence of observations for analysis of fledgling survival, only 1 nestling will be selected randomly from each nest to receive a radio-transmitter. Radio-transmitters will be attached using cotton embroidery thread and the figure-8 backpack method described by Rappole and Tipton (1991). All research methods using birds will be approved by MSU IACUC.

Fledglings will be located every 2 days for 21 days after fledging with a record of observation history collected for each individual. During resighting events, the location of each fledgling will be recorded using a global positioning system (GPS). GPS locations will be used for future habitat assessment.

Statistical Analysis

We will estimate nest and fledgling survivorship using a variety of capture-recapture methodologies (White and Burnham 1999), accounting for unique forest stands with random effects in the models. We will

calculate overall nest survival on the basis of a 24-day nest cycle (average 13 incubation days and 11 nestling days for Indigo Buntings). Daily post-fledging survival will be calculated for the 21 days after fledging. A log chi-square statistic will be used to compare survival rates by treatment type. Demographic data including nest and fledgling survival will be used to parameterize individual-based models (Grimm *et al*. 2006). Coupling demographic information with population estimates gained through a parallel project with our confirmed partners we will model population sensitivity to changes in survival, fecundity and edge relationships.

Movement from nest site relative to habitat availability (estimated through onsite *ad hoc* evaluation supplemented with GIS and ground-truthing) will be evaluated using existing methods (Moore *et al*. 2010, Anders *et al*. 1998), providing information on best forestry practices in support of avian populations and biological diversity.

Towards fulfilling the second objective of this project we will use collected demographic and movement data to develop a simple individual-based spatially-explicit population model (IBSEPM) to evaluate the persistence of songbird populations relative to stand and forest management. Models of this type have been increasing used in forwarding our understanding of how landscape structure influences individual dispersal and interactions between habitat configuration and population demography (Wiegand *et al*. 1999, Melbourne *et al*. 2004, Acuña and Estades 2011).

Literature Cited

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SFI Inc. Conservation & Community Partnerships 2013 Grant Application

Organization Information

Lead Organization Name and Address	**The Nature Conservancy of Canada** BC Region, 825 Broughton Street, Suite 200 Victoria, BC V8W 1E5	
Name, phone and email for Project Director	Nancy Newhouse, Canadian Rocky Mts Program Mgr nancy.newhouse@natureconservancy.ca 250-342-5521	
Lead Organizational Mission Statement (25 words or less)	The Nature Conservancy of Canada protects areas of biological diversity for their intrinsic value and for the benefit of future generations.	
Lead Organization Annual Operating Budget	$50,000,000+	
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Purnima Govindarajulu Terrestrial Conservation Science Section, BC Ministry of Environment Purnima.Govindarajulu@gov.bc.ca 250-387-9755	Marc-Andre Beaucher, Chief Biologist Creston Valley Wildlife Management Association biology@crestonwildlife.ca 250-402-6900

Project Overview

Confirmed Project Partners	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	Element(s) of the SFI 2010-2014 Program
Wynndel Box & Lumber & International Forest Products, Ltd.	Filling in Knowledge Gaps, and Habitat Enhancement for Bats in the Creston Valley area Follow-up Monitoring of Mitigation Efforts at Queen Victoria Mine	$30,000.00	$46024.00	This 3-faceted project will work to 1) investigate seasonal bat movement patterns, establish baseline activity pre-WNS (White Nose Syndrome) to, locate and mitigate roosting habitat in the Creston Valley, 2) assess bat habitat and activity in the Valley, including the Next Creek area of the Selkirk Mountains and 3) monitor bat numbers and species diversity at Queen Victoria Mine near Nelson, following gate installation in 2013.	4.1 promote biological diversity. 4.2 manage/protect wildlife habitat 6.1 manage special sites 15.1 through cooperative efforts improve forest health, sustainable management and environmental benefits.

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Wynndel Box & Lumber	Michael Combs, CEO	mcombs@wynndellumber.com 1140 Winlaw Rd RR1 Wynndel, BC V0B2N1 250-866-5231	SFI Certified Partner
International Forest Products	Rhiannon Poupard, Certification Coordinator	Adams Lake Division 9200 Holding Road Chase, BC V0E 1M2 rhiannon.poupard@interfor.com 250-679-6818	SFI Certified Partner
British Columbia Timber Sales	George Edney, Planning Officer	BCTS, Kootenay Business Area 1907 Ridgewood Road Nelson, BC V1L 6K1 George.Edney@gov.bc.ca 250-825-1120	SFI Certified Partner
Wildlife Conservation Society Canada	Cori Lausen, Biologist and Research Fellow	Box 606, 202 B Ave. Kaslo, BC V0G 1M0 corilausen@birchdalebc.ca 250-353-7339	PhD and MSc in Bat Ecology; course instructor for both major bat detector companies in North America; co-chair of BC Bat Action Team; the Canadian representative on several USFWS Bat Working Groups/Committees
Kootenay Community Bat Project	Juliet Craig, Coordinator	915 Vernon Street, Nelson, BC, V1L 4G7 kootenaybats@gmail.com (250) 352 2260	Registered Professional Biologist in BC. Holds a Bachelor of Science in wildlife ecology and has been involved in projects around the world with snowshoe hares, night snakes, spotted bats, kangaroos, orangutans and chimpanzees.

Grant Application Coordinated and Submitted by: Michael Curnes, Manager Major Gifts, BC Region Nature Conservancy of Canada
409 Granville Street, Suite 1310
Vancouver, BC V6C 1T2
604-331-0723
michael.curnes@natureconservancy.ca

Project Details

The goal of this project is to continue to support bat conservation efforts in the West Kootenay region, specifically as it pertains to understanding seasonal changes in use of habitat, and securing of critical roosting habitat prior to the arrival of White Nose Syndrome (WNS), a deadly fungal disease of bats spreading westward from an eastern US point source introduction (USFWS 2013). The Nature Conservancy of Canada (NCC) focuses on biodiversity conservation through securing and stewarding private land and is a significant land owner in the West Kootenay region.

Specifically this project has three main objectives: 1) Monitor bat use at Queen Victoria mine near Nelson following gate installation in 2013 (Joint SFI/NCC/Interfor Project 2011-13); 2) Document seasonal bat species diversity and relative activity levels in the Creston area, including the Next Creek area of the Selkirk Mountains; 3) Enhance bat roosting habitat in the Creston Valley on NCC lands.

A joint SFI/NCC/Interfor project began in 2011 to identify and secure critical winter bat habitat. Discovery and securing of bat hibernation habitat has been identified as a High Priority action item by the recently formed Canadian Interagency White Nose Committee (Ted Leighton, Canadian Cooperative for Wildlife Health Centre, Saskatoon, SK), a group that currently reports to the Canadian Wildlife Directors. Several bat hibernation sites were found as part of this joint project, and one was identified as high priority for protection, due to its relatively large number of roosting bats and species diversity, and potential for human disturbance (winter geocaching at this site has been documented). Gating this mine in the West Kootenay (near Nelson) will secure this habitat for overwintering bats. However, it is uncertain if all species in the mine will continue to use the roost following gating because gates are typically designed to accommodate maneuverable bat species, and yet one species in this mine is not considered maneuverable. This same species is alternating between nearby trees and the mine throughout the winter for roosting habitat; BC Timber Sales (SFI Partner) has agreed to temporarily halt logging in the immediate area of this mine, knowing that trees seem to play a significant role in the hibernation behaviour of this species. Follow up monitoring will be needed to determine the success of the gating of this mine in securing bat habitat. British Columbia Timber Sales (BCTS) has been instrumental in agreeing to suspend operations in their cutblock in the vicinity of the mine so that the information gained from this research can inform their logging practices. BCTS has committed to collaborating with NCC in the 2nd phase of this research at Queen Victoria Mine as has Interfor.

The Creston Valley has long been known to house a high diversity of bats and large numbers of bats seem to exist in the valley given that many maternity roosts have been reported, especially in buildings. The valley is heavily developed for agricultural purposes, and logging is being conducted in both the Purcell and Selkirk Mountains on either side of the valley. While foraging opportunities for bats remain high in the valley due to the Creston Valley Wildlife Management Area (CVWMA) dyke system, roosting opportunities are believed to be limiting and most likely on the decline. The CVWMA installed a very large bat house (Bat Condo) several years ago to mitigate for the destruction of a barn that housed thousands of bats, however, bats are continuously being excluded from buildings in the area as residents renovate homes, and development including logging continues on the periphery of the valley. Nature Conservancy of Canada has purchased some farm land from Wynndell Box and Lumber in the Creston Valley and continues

to negotiate with WBL for purchase of future properties in this valley that will benefit many wildlife species. Because activities on these properties have ultimately reduced the availability of suitable trees for bat roosts, this project will include an enhancement component, building several rocketboxes and other bat houses as summer roosting habitat on open farmlands.

While bats are present in relatively large numbers in summer in the Creston Valley, bat activity is also being detected throughout the winter, suggesting that bats are remaining in the area year-round and yet winter bat habitats are not understood. Recently rock crevices, mines, and buildings have been discovered to house some overwinter bats in the area, but where the bulk of them hibernate is still unknown. Some species may migrate out of the area, and thus monitoring for bat activity outside of the summer season is important to provide clues as to where bats may be overwintering. It is also critical to establish some baseline activity levels for winter bat activity prior to the arrival of White Nose Syndrome as a surveillance method; in eastern US when WNS infected a hibernation area, bat activity in winter peaked and then plummeted as mass die-off took place (USFWS 2013). This project therefore also proposes to monitor WBL lands in the Creston Valley area, including the Next Creek (owned by Wynndel Box and Lumber) which looks to contain suitable winter bat habitat. As the project proceeds, additional sites may be identified for monitoring.

This project will build upon and advance the conservation initiatives that began during the first funded collaboration between Sustainable Forestry Initiatives (SFI) and the Nature Conservancy of Canada (NCC): *Bat Hibernacula Inventory and Protection* 2011-2013. Much is being learned about bats in Western Canada through collaborative research and information sharing among leading biologists such as Cori Lausen and Marc-Andre Beaucher, organizations like NCC, the Creston Valley Wildlife Management Association, Bats R Us, BCBAT, and corporate partners working on the landscape like Wynndel Box and Lumber and International Forest Products.

Background: Why is bat conservation more important than ever before?

We know that B.C. is home to 16 species of bats, 14 of them are thought to hibernate in the province, and 2 migrate south to overwinter outside of the province. Migrating bats are being killed at wind farm developments, and hibernating bats are threatened by a deadly fungus that kills them during winter in their hibernacula. This relatively new fungal disease (2006), named White Nose Syndrome (WNS), has devastated bats in eastern North America and is moving westward. Millions of bats have died so far and this disease is being touted as the most devastating wildlife disease in North America's recorded history.

In parts of northeastern US, near the disease epicentre, bats are becoming scarce, and the little brown myotis, once the most common bat in North America, can no longer be found. Recent published literature predicts the extirpation of this species due to WNS in many areas across North America. The little brown myotis is just one species that has recently been assessed by COSEWIC (Committee on the Status of Endangered Wildlife in Canada) as Endangered in Canada, another is the northern myotis. Both species reside in B.C., and are found in the Kootenay region of southeastern BC. It is anticipated that these 2 species, and potentially the other 12 species of hibernating bats in B.C., will be devastated by WNS.

Between WNS, loss of roosting habitat, human interference in and around hibernation habitat and wind turbines along migration routes, each of the 16 species of bats in B.C. faces an uncertain future. Mitigation and management decisions to minimize the impacts these threats have on bats in Western Canada depend on filling some critical knowledge gaps. 1. Where are the migration routes for bats? 2. Can we mitigate the loss of roosting habitat with bat house boxes? 3. What constitutes winter bat habitat? Does mine gating achieve the intended enhancements to hibernacula?

Understanding where in British Columbia major migration routes are for bats will help inform an assessment of habitat loss and mitigation and will hopefully guide land-use management decisions in order to minimize mortality. Both migratory bats species are tree-roosting bats, and thus presumably migrate along corridors that support rich foraging and roosting habitats, but also provide suitable wind currents for fast migration. It is believed that the Creston Valley in southeastern BC between the Selkirk and Purcell Mountain ranges may be one of these critical migration corridors. The City of Creston experiences large numbers of bats roosting in the roofs and attics of buildings and houses which creates a perception of a pest problem for homeowners and suggests to scientists a loss of natural habitat likely due to widespread agricultural activities in the valley. There is an abundance of aquatic hatching insects in the Creston Valley and bats are known to eat up to 1000 mosquito-sized insects per hour.

Bats are the primary consumers of night-time insects, and in B.C. this includes moths that are major forestry and agricultural pests. While little research has been done on bat foraging in B.C., it has been shown that bats respond to outbreaks of spruce budworm moth, consuming both moth and caterpillar stages. The dire prediction of 90% dieback in our bat populations due to WNS will equate to economic loss, and unfortunately the fast westward spread of the WNS fungus suggests that we may have less than 10 years to learn a great deal about our bats to try to conserve them.

The involvement of SFI and SFI Partners in this project will be highlighted on NCC's BC project web pages, and become a component of any media and public outreach efforts related to this project.

NCC and its project partners will utilize media, signage and pursue opportunities to participate in a public forum to communicate the outcomes of this project through the involvement of SFI and SFI Partners Wynndell Box and Lumber and International Forest Products.

Action Items	Details of Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Action 1: On lands in the Creston Valley that NCC owns and on lands where	Acoustic monitoring at sites along Next Creek on other WBL lands in the Selkirks to	Data to inform land use management decisions.	Bat ultrasound is recorded, and timing of activity provides information about use	$12,716	$6000

Wynndel Box and Lumber operates, this project will conduct field research to assess the roosting, hibernation and migration activities of bats.	determine roost and hibernacula use. Collect and analyze acoustics data from the Creston Valley to determine species diversity and patterns of movement and timing for hibernating and migratory species.		of these properties by bats.		
Action 2: In the Creston Valley floor and lower slopes where logging and agriculture has eliminated much of the natural roosting habitat, this project will construct 2-4 bat houses (rocket boxes) to mitigate/enhance roosting habitat.	Desktop review of historical bat habitat and habitat loss in the Creston Valley. Consult best practices and success of the Bat Condo at Duck Lake to determine best design and sites for rocket boxes, or similar roost structures for reproductive bats. Determine if any other wildlife detection equipment could be co-housed on rocket box pole (e.g. grizzly radio collaring or motion detector camera for other species) and if these opportunities could attract co-funding. Work with WBL to source lumber and fabrication for the rocket boxes.	Construct 2-4 Rocket Boxes in the Creston Valley for roosting habitat (number of units depends on final design, locations thus and cost) While the Bat Condo at Duck Lake cost $15,000, we are aiming to construct many smaller boxes that will be cheaper, but provide more widespread habitat with more microclimate options.	Field evidence of bat utilization of this roosting habitat.	$7,074	$2,500

Action 3: At the Queen Victoria Mine (near Nelson) this project will monitor species diversity and bat use to assess the initial effectiveness of gating the mine in 2013. NCC will work with International Forest Products and British Columbia Timber Sales to share information and coordinate public outreach.	Compare acoustic monitoring data to pre-gate activity. Internal temperature and relative humidity data will also be measured and compared to pre-gating to determine if roosting environment has been altered by the installation of the gate. Conduct some mistnetting outside and one internal survey inside (as has been done in previous years) to continue monitoring of individual bats (banded), and impact of gating on population estimation.	Determine impacts on Silverhaired bats as the species most likely impacted by gate due to their lack of maneuverability. Bats that have repeatedly been captured at this mine and have been banded will continue to provide a mark-recapture estimate of the number of bats using this hibernaculum.	Field evidence that gating did not impede utilization of mine as hibernaculum. If gate has allowed for less disturbance of bats in winter (e.g. no further geocaching), then population numbers will increase. This will be determined through continuation of mark-recapture efforts. Species diversity may also increase.	$6,350	$3750
Action 4: NCC and it's partners in this project will conduct public education and outreach in the Creston Valley to promote the findings and activities of this project.	Pursue media, speaking event and signage to inform public of the project.	To raise both public awareness and engagement in the protection of bats.	Change in public opinion about bats as pests in the Creston Valley.	$3,860	$1,500

<u>NCC staff on project:</u>
Nancy Newhouse, R.P.Bio, Program Manager, Canadian Rocky Mountains
Hillary Page, R. P. Bio, Conservation Operations Coordinator, Canadian Rocky Mountains
Dave Wickstrom, R.F. T., South Selkirk Project Manager

Project Timeline

Project timeline Start – Finish	**July 2013 – December 2014 (18 months)**
Summer field visits to Creston Valley to assess rocket box siting	July-August 2013
Summer field visits to Next Creek to assess roosting habitat	July-August 2013
Deploy fall bat detectors at Next Creek (boat access only), and Queen Victoria Mine	Sept-October 2013
Select design, and construct rocket boxes	Nov 2013 – Feb 2014
Conduct Monitoring at Queen Victoria Mine	Nov 2013 – Feb. 2014
Collect acoustics data at monitoring stations (Next Creek and Queen Victoria Mine), and analyze data	Mar-May 2014
Install Rocket Boxes at selected sites in Creston Valley	Mar-April 2014
Monitor rocket boxes for utilization	June-Sept 2014
Public outreach with findings and results	Sept-Oct 2014
Data analysis and reporting	Nov-Dec 2014

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	4,548	2,274 (NCC)	
Operating Costs			
Research Activities (Cori Lausen)	22,650		500 (WBL) 500 (Interfor 500 (BCTS) 9250 (WCS Canada)
Meetings			
Travel			
Education & Outreach	1,850		1000 (WCS Canada) 2000 (Kootenay Bat Project)
Communications	952		
Total	**$30,000.00**	**$2,274**	**$13750**

SFI Inc. Conservation & Community Partnerships Grant Program Request for Proposals
2013 Grant Projects
North Carolina Coastal Land Trust – Lead Applicant
"A Path Through the Forest: The Alvarez Tract & the Brunswick Greenway"

Organization Information

North Carolina Coastal Land Trust is a 501(c)(3) non-profit organization. The NC Coastal Land Trust works with private individual and corporate landowners on a voluntary basis to conserve lands with ecological, recreational, historic and/or scenic value within 32 Coastal Plain counties of North Carolina. To date, the Coastal Land Trust has protected almost 50,000 acres of valuable upland and wetland habitats through either donated or purchased conservation easements or fee title acquisitions. The Coastal Land Trust owns and manages 35 preserves and has developed and implemented forest management plans to improve stands for wildlife, aesthetics and/or natural community restoration. The Coastal Land Trust educates its members about its forest management and restoration work and assists conservation easement landowners with obtaining cost-share funds for sustainable forest management.

Lead Organization Name and Address	North Carolina Coastal Land Trust ("NCCLT"), 131 Racine Drive, Suite 202, Wilmington NC 28403
Name, phone and email for Project Director	Camilla Herlevich, Executive Director, 910-790-4524, ext. 206, camilla@coastallandtrust.org
Lead Organizational Mission Statement (25 words or less)	Enrich the coastal plain communities of our state through conservation of natural areas and working landscapes, education, and the promotion of good land stewardship
Lead Organization Annual Operating Budget	See attached
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Hon. George Liner, Town Commissioner, Town of Havelock NC, 252-447-8898, George_liner@yahoo.com, 203 Cambridge Court, Havelock NC 28532 Mr. Peter Talty, Orton Plantation c/o Belvedere Property Management, 212-782-7195, Peter.Talty@bllc.com, 1251 Avenue of the Americas, 17th Floor, New York NY 10020

Project Overview

The North Carolina Coastal Land Trust, in partnership with Brunswick County Parks and Recreation Department and Resources Management Service, LLC, respectfully requests a grant of $45,000 from the Sustainable Forestry Initiative's 2013 Conservation Grant Program to acquire a key tract for the Brunswick County Greenway. The acquisition of the *Alvarez Tract*, strategically located in the middle of 10,000 acres of protected natural areas and working forests, would allow the linkage of Brunswick County's Nature Park to the Town of Leland's Greenway and the Brunswick County Greenway. The project will promote outdoor recreational opportunities for the public, and meets Objective 5, Management of Visual Quality and Recreational Benefits, of the SFI 2010-2014 Standard Objectives. The **Project Details**, set out beginning on page 5 below, provide the specific recreational benefits to be provided by the acquisition of the *Alvarez Tract*. However, the larger significance of this project arises from that fact that, with the exception of the 922-acre Brunswick Nature Park, most of the surrounding 10,000 acres of natural areas and working forests are protected by conservation easements, are privately owned and are not open to the public. The value of the Alvarez project derives from its distinction in providing public access--a pathway to enjoy, appreciate, and understand the region's significant natural and forest resources.

· **National Significance of Forest Resources and Other Natural Resources of the Region**

Because the *Alvarez Tract* is a strategic conservation acquisition in the Cape Fear Arch ecoregion, an area of extensive working forests, significant biological diversity, and water resources (streams, estuary and ocean), the project contributes to Objective 1, Forest Management; Objective 3, Protection and Maintenance of Water Resources; and Objective 4, Conservation of Biological Diversity. According to The Nature Conservancy, the southeast region of North Carolina is the most biologically diverse area along the entire east coast, north of Florida, and they consider it one of the Southeast's "biodiversity hotspots." This incredible biodiversity is partly due to a geologic feature called the Cape Fear Arch, an uplift of sand and limestone deposits centered around the Cape Fear River that create unique soil and hydrologic conditions. These habitats have nurtured a multitude of plants and animals, many found naturally nowhere else in the world. The Cape Fear Arch region contains a considerable amount of rural land, much of which is in working forest or farms. The Cape Fear Arch's forest resources are particularly significant with sweeping longleaf pine forests, unique pocosins and Carolina bays, age-old bottomlands (the bottomland forests along the Black River within the region contain some of the oldest trees east of the Rockies including a 1,700 year old bald cypress) and the exceedingly rare coastal maritime and fringe evergreen forests. The aquatic systems within the Cape Fear Arch are equally impressive. Two of the most sensitive watersheds in this region are the Waccamaw River and Town Creek. The Waccamaw River, which drains from a large Carolina bay, supports 9 aquatic animals that are found nowhere else in the world. Town Creek is considered to be a nationally significant aquatic site because of its pristine condition and unique features. Indeed, many of the terrestrial and aquatic communities of the Cape Fear Arch region rank as *nationally significant* according to the North Carolina Natural Heritage Program, which means they are habitats of exceptional ecological importance. The forest resources are also important sources of wood, pulp and paper products, with thousands of acres actively managed by TIMO's, industrial forest owners, and private landowners as well. More than 422,000 acres of Brunswick County's 547,000 acres are forestland. The region's "piney woods" have been a source of jobs, industry and culture since colonial times.

· **Regional Conservation Initiatives**

Ø Cape Fear Arch Conservation Collaboration. The *Alvarez Tract* is located within the Focus Area of the Cape Fear Arch Conservation Collaboration ("CFACC") is a bioregional conservation partnership of 25 organizations in North and South Carolina, which SFI has previously supported. The Collaboration was formed in 2006 to develop and implement a community conservation vision to build awareness, protection and stewardship of the region's important natural resources. The CFACC meets on a quarterly basis and meetings are organized to inform participants about particular conservation issues (with speakers representing both industry and conservation interests) and to encourage partners to discuss and collaborate on projects within the Cape Fear Arch region. The CFACC has been working diligently to identify high priority resources in the southeast coastal plain region and encourage protection through land conservation, proactive planning, and improved land use practices. The CFACC has developed a web site, www.capefeararch.org and drafted both a Conservation and Education Plan to guide its actions over the next few years. Conserving biodiversity in both terrestrial and aquatic habitats along with protecting special forest sites are a major focus of the plan.

Ø Brunswick County Comprehensive Parks and Recreation Master Plan. Recognizing the County's continuing high growth rate, the Brunswick County Parks and Recreation Department recently completed its *2009 Comprehensive Parks and Recreation Master Plan* (the "Plan"), which is available on its website. http://www.brunsco.net/portals/0/parksandrec/master%20plan.pdf The planning process included open public meetings, interviews, and a community survey. The Plan was intended to serve as a ten-year comprehensive master plan that would identify program and budget needs through 2018. The Plan also incorporated existing documents including the county's Greenways and Blue Ways Master Plan.

Ø North Carolina Coastal Land Trust's Town Creek Conservation Initiative. The *Alvarez Tract* is also located within the Town Creek watershed, where the Coastal Land Trust has conserved 7,225 acres of land, primarily focusing on conserving its exceptional floodplain and upland forests and water quality. The Coastal Land Trust holds conservation easements over Old Town Plantation and Pleasant Oaks Plantation, two former rice plantations located on opposite shores of Town Creek where it empties into the Cape Fear River. Further upstream are lands owned by partner Resource Management Services LLC, where the Coastal Land Trust holds working forest easements on 1,720 acres and more restrictive water quality easements

over another 760 acres. Resource Management Service LLC ("RMS"), an SFI certified partner, has done an excellent job maintaining its floodplain forests and other water resources along Town Creek on its properties. A half dozen more privately held properties are also privately owned, but protected by conservation easements held by the Coastal Land Trust. The keystone property in the Town Creek Conservation Initiative is the 922-acre Brunswick Nature Park tract, purchased from International Paper Company by the Coastal Land Trust in 1994, and donated to Brunswick County in 1995.

Ø Brunswick Nature Park. The *Alvarez Tract* is adjacent to the 922-acre Brunswick Nature Park. Brunswick Nature Park is a mosaic of the region's habitat, including hardwood buffers along Town Creek, and managed pine plantations in the uplands. The Coastal Land Trust purchased the property with a grant from the state's Clean Water Management Trust Fund. The Coastal Land Trust then donated the property to Brunswick County to be used for passive recreation and managed as a nature park. All three partners remain actively involved in sustainable conservation activities and in outreach activities at the Brunswick Nature Park; as described below.

- Brunswick County has begun implementing its plans for park development in phase. Phase I, which was completed in 2010, consisted of construction of picnic shelters, a pavilion, a canoe/kayak launch, bathrooms, roads, and parking areas; biking, walking and equestrian trails have also been established. Phase II, the permitting for which is currently underway, will include a nature center and more trails.

- The Coastal Land Trust reserved the timber management rights at the Nature Park. In 2011, RMS provided pro bono consulting services for a 14.7 acre thinning project, which included a site, soil and stand descriptions and maps, a management plan for restoration including weed control, an application for cost-sharing, and a source of reference for additional information. The Coastal Land Trust and RMS carried out this recommended plan in concert; approximately 6,300 trees were removed and longleaf has been replanted in one area and natural regeneration allowed at others.

- The Coastal Land Trust also sponsors a very popular "Family Fun Day" at the Brunswick Nature Park, with kayak demonstrations, off-road bicycling demonstrations, arts and crafts, and pony rides and horse demonstrations for the past two years. The Family Fun Day also features booths, information, and speakers on conservation topics such as forestry and conservation, with volunteers from the Society of American Foresters and others. The Family Fun Days attract more visitors—between 750-900 people than any other event at the Nature Park. The Coastal Land Trust has designed a "Nature Guide" for the Park, which it gives out to those who attend the event. Each year, the Coastal Land Trust tries to add something new for visitors. For 2013, the new feature will be interpretation of the Gullah-Geechee African-American natureways in the region.

The County and the other partners envision Brunswick Nature Park as a hub for further greenway development, to connect to a larger network of trails. Acquisition of the *Alvarez Tract* is essential if the County is to connect the Nature Park and its planned greenway to the Town of Leland's greenway system.

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address
Brunswick County Parks and Recreation Department Resource Management Services	A Path Through the Forest: The Brunswick Greenway	$45,000	$56,000	The Coastal Land Trust seeks a one-time grant of $45,000 to be used to acquire up to 2.5 acres needed to link a County	Objective 5, Management of Visual Quality and Recreational Benefits

				Nature Park to a system of county-wide greenways in an area noted for its legacy of sustainable forestland, biological diversity, and pristine water resources.	

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Brunswick County	Jim Pryor, Director of Parks and Recreation	jpryor@brunsco.net, 910-253-2670, Brunswick County Parks and Recreation Department, PO Box 249, Bolivia NC 28422	**Brunswick County** is a diverse coastal community that has seen some of the highest population growth in the nation, growing 43% during 1990 to 2000, from 50,000 to 73,000 residents. The county is bordered to the east by the Cape Fear River and the Atlantic Ocean, which also borders the county to the south. Its land base—547,000 acres, including 422,000 acres of forestland--includes nationally significant natural heritage resources. The mission of the Parks and Recreation Department is to promote a better quality of life for all its citizens by offering safe parks and facilities, creative recreational programs that serve people of all ages, interests and abilities, as well as excellent community relations, while also fostering a keen stewardship toward the natural environment. The County Parks and Recreation Department manages 1 neighborhood park, 7 community parks, 4 regional parks, and 1 nature preserve.
Resource Management Service, LLC	Tony Doster CF, RF, Manager, North Carolina Region	TDoster@resourcemgt.com, 910-790-1074, Resource Management Service, LLC, 2704-C Exchange Drive, Wilmington NC 28405	**Resource Management Service, LLC** is a Timber Investment Management Organization and a SFI Program Participant. RMS manages 2.7 million acres of land in the southern United States. Their management philosophy is one of sustainable management of all forest values to achieve environmental, social and economic objectives in a responsible manner. Under the leadership of Tony Doster, NC Regional Manager, SFI has partnered with the Coastal Land Trust on several projects including: 1) the Cape Fear Arch Conservation Collaboration; 2) longleaf re-forestation at several tracts, including Brunswick Nature Park; and 3) landowner outreach promoting forest stewardship. Mr. Doster is also an active volunteer leader in the state chapter of the Society of American Foresters. (Mr. Doster previously worked with International Paper, where he facilitated three conservation acquisitions, including the sale of the Brunswick Nature Park tract, which is now part of the Town Creek conservation Initiative.)

Project Details

A. Introduction

Southeastern North Carolina - and Brunswick County in particular - is a land where forests, and the timber industry, have informed the fabric of society, of community and of the economy for generations. Today, the economy is in transition, with residential and resort development, fueled by retirees from other parts of the country, drawn to the sunshine, waterways, natural areas, and forests that natives have valued all along. The three partners in this application, North Carolina Coastal Land Trust, Brunswick County Parks and Recreation Department, and Resource Management Services, are united in their commitment to preserve the legacy of our region's natural heritage, and to manage our forest resources in a sustainable manner. Where else, but in Brunswick County, does one find a nature park the size of New York's Central Park, owned by a county parks and recreation department, where the local land trust manages reserved timber rights and where the local TIMO helps out with planting of longleaf seedlings? This is a pretty amazing collaboration. This regional collaboration is only going to get better (and better known), because of the conservation activities being implemented by the new owner of Orton Plantation, conservationist Louis Bacon.

B. How "The Path Through the Forest: The Alvarez Tract & the Brunswick Greenway Project" will illustrate or inform the role of SFI with respect to Objective 5

Most of the work of SFI takes place in the busy intersection of commerce, amongst and between forest landowners, their advisors and those who buy timber and timber products. Non-governmental organizations (NGO's) like the Coastal Land Trust nonetheless have an important role to play, as is evidenced by SFI's grant program. The core value of SFI is sustainability. The acquisition of a small portion of the seemingly non-significant Alvarez Tract in fact contributes in a number of very significant ways to the important role of SFI—and to the larger goal of sustainable use of our natural resources. In part, this is due to the national significance of the conservation resources of this particular corner of North America known as the Cape Fear Arch and its unusual ecological diversity and in part this is due to Brunswick County's need for a recreational greenway in this particular place. Here are the details.

Objective 5, Management of Visual Quality and Recreational Benefits

According to Brunswick County's *2009 Comprehensive Parks and Recreation Master Plan*:

> . . . walking and jogging were the primary activities that the public of Brunswick County prefer as recreation. When ranking facility needs, trails were cited most. Greenways and trails are the most common request of nearly all communities that are developing comprehensive master plans. They are seen to serve the broadest demographic from young to old to varying degrees of physical ability and encourage group participation between those who may not enjoy the same type of organized athletic activities. Plan, p. 121.

The Plan also notes that notes that the national East Coast Greenway, a 2500 mile greenway being developed in the same context as the Appalachian Trail, is proposed to pass through Brunswick County. The Plan includes a proposed county-wide Greenway (see Plan Fig. 7.15, attached) and recommends that the County develop a "truly comprehensive county-wide greenway master plan". The one specific recommendation made in the Plan with regard to greenways and trails is to acquire a greenway that connects Brunswick Nature Park to the Town of Leland's greenway system; the Alvarez Tract is the only parcel that provides this connection. The significance of the Alvarez Tract is evidenced by the fact that the 2009 Comprehensive Parks and Recreation Master Plan notes this connection, and none other, as the only priority for its greenway acquisition. (The Plan does not, of course, identify the Alvarez Tract by owner name, but by location.)

As noted in the **Project Overview** above, SFI Objective 1, Forest Management; Objective 3, Protection and Maintenance of Water Resources; and Objective 4, Conservation of Biological Diversity are each met because the of the particular nature of the lands and aquatic resources through and along which the Brunswick Greenway finds its way. SFI Objective 1, Forest Management will be met because of Brunswick County's "piney woods" past, and its continuation as a vital locus for forestry means that the stories of this community's natural resources, as interpreted by the project partners, will continue to honor its

sustainable forest resources. SFI Objective 3, Protection and Maintenance of Water Resources will be met because the Brunswick Nature Park, and so many of the other protected lands are located on the banks of Town Creek, and serve to protect its water quality. SFI Objective 4, Conservation of Biological Diversity will be met because this area is truly a nationally significant ecosystem, with national conservation attention and grants form agencies including The Nature Conservancy, the federal Forest Legacy Program (3 grants), the US Fish & Wildlife Service's North American Wetlands Conservation Agency (NAWCA) grants program, and a host of state and regional agencies and organizations.

C. Activities that Promote the Outcome of the Project and SFI Involvement in the Project

The Coastal Land Trust, Brunswick County Parks and Recreation Department and RMS will continue their partnership in combining their particular expertise and resources to enhance Brunswick Nature Park. This takes place at several levels. On the ground, the County carries out its mission of providing recreational opportunities for its citizens while fostering stewardship of the natural environment. The Coastal Land Trust manages the timber resources, while hosting special events like Family Fun Day to introduce citizens to the new nature park. And RMS assists both by providing professional advice and pro bono forestry services, and volunteers.

The Coastal Land Trust and RMS also welcome the opportunity to showcase the role of SFI in this project. RMS and the Coastal Land Trust collaborated on a presentation to the October 2012 Annual Meeting of SFI in Birmingham Alabama on the Cape Fear Arch conservation collaboration, which was previously funded by SFI, and would welcome the opportunity to participate in a similar presentation, should this grant be funded and this project proceed.

D. Project Goals

The goals of the project are set out in the table below. The Alvarez Tract consists of 31 undeveloped acres, and has recently been timbered. It is owned by a willing seller. Both staff from the County and from the Coastal Land Trust have had initial conversations with the owner's representative and have determined that the owner is willing to sell a portion of the property for a greenway. The Coastal Land Trust proposes that 2.5 acres, more or less, be purchased for approximately $18,000/acre. (The final price to be negotiated will be not more than fair market value, as determined by an independent appraisal of the property.) Acquisition of the strategically located Alvarez Tract will serve to link the Brunswick Nature Park with the Leland Greenway and the Brunswick County Greenway.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Carry out due diligence to acquire parcel of Alvarez Tract for greenway	contract appraisal negotiate p/s contract contract survey order title work contract env. audit	appraisal signed contract survey title commitment environmental audit	appraisal signed contract survey title commitment environmental audit		$11,000
Goal 2: Complete purchase of Alvarez Tract and convey to Brunswick County	prepare closing documents secure approvals of Board of Directors of NCCLT and County Commissioners	record deed to Coastal Land Trust record deed to Brunswick County	record deed to Coastal Land Trust record deed to Brunswick County	$45,000	

Project Timeline – 12 months (April 2013 to March 2014)

1st Quarter (April 2013 – June 2013) Grant awards announced. Select and contract for the appraisal.
2nd Quarter (July 2013 – September 2013) Finalize site to acquired and negotiate purchase price with seller. Negotiate terms of contract for purchase and sale. Select contractor to perform environmental audit and contract with same. Select attorney to perform title work and enter into agreement for representation. Select surveyor and contract with same.
3rd Quarter (October 2013 – December 2013) Review all due diligence (title, survey, environmental audit, etc.). Prepare closing documents and close transaction. Discuss partnership at SFI Annual Meeting and at the Family Fun Day at the Brunswick Nature Park.
4th Quarter (January 2014 – March 2014) Prepare press release and publicize the acquisition of the Alvarez Tract. Discuss partnership at local and state venues.

Project Budget

Capital acquisition funds are sought from SFI. Funding for transactional expenses will come from the County. The Coastal Land Trust will contribute its staff time as in-kind support, including a $1,000 contribution from RMS to the Coastal Land Trust. However, it is worth noting that the contributions of Brunswick County that are not included in the grant budget are in reality the most substantial contributions of either SFI or any partner, as Brunswick County is willing to take on responsibility not only for developing the greenway, but also for its continued management into the future. The cost of site improvements, signage, and continued stewardship will continue long after these "start-up" expenses incurred by SFI, RMS, and the North Carolina Coastal Land Trust are but distant memories.

Expenditure	Amount (SFI)	Matching Funds (RMS)	Matching Funds (County)	In-Kind Contributions (NCCLT)*
Staff Salary and Benefits				
Landowner negotiations, due diligence, presentations to governing boards (NCCLT)		$1000		$5,000
Operating Costs				
Appraisal			$2,250	
Envt'l Audit			$750	
Legal, Closing & Title			$2,000	
Land Acquisition	$45,000			
Greenway Development				
Total	**$45,000**	**$1,000**	**$5,000**	**$5,000**

Application Attachments:
Fig. 7.15, Proposed Parks, Greenways and Partnership Facilities
Applicant's IRS determination letter
Applicant's current year budget
Agreement to Public Communication Letters from Partners

Marketing a Mobile Application - Targets Family Forest Landowners

Organization Information

Lead Organization Name and Address	North East *State* Foresters Association (NEFA) P.O. Box 2911 Concord, NH 03302 www.nefainfo.org
Name, phone and email for Project Director	Charles Levesque, Executive Director Phone 603-588-3272 levesque@inrsllc.com
Lead Organizational Mission Statement (25 words or less)	The State Foresters of ME, NH, VT and NY cooperating with the USDA Forest Service, working together for forests and people who care about forests.
Lead Organization Annual Operating Budget	$271,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Donald Mansius, Maine Forest Service, Donald.J.Mansius@maine.gov, (207) 287-4906 Eric Kingsley, Innovative Natural Resource Solutions, LLC, kingsley@inrsllc.com, (207) 772-5440

Project Overview

Confirmed Project Partners (list organization name only)*	**Project Title**	**Amount Requested**	**Total Project Budget**	**Brief Project Summary (50 words or less)**	**What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))**
Maine SFI SIC New Hampshire SFI SIC New York SFI SIC Durgin & Crowell Lumber	Outreach program development for Mobile Application ("App") to Provide Information on Forests and Forest Stewardship to Family Forest Owners in ME, NH, VT & NY	$9,000	$250,000	NEFA is developing a mobile application designed to provide family forest landowners with information about their forest. Using location-based technology, a landowner will access basic information on a parcel and forest stewardship opportunities, and connect with forestry resources. NEFA requests funds to conduct outreach to market the finished product.	Objective 17. Community Involvement in the Practice of Sustainable Forestry. To broaden the practice of sustainable forestry by encouraging the public and forestry community to participate in the commitment to sustainable forestry, and publicly report progress.

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Maine SFI SIC	Patrick Sirois, Coordinator	psirois@maineforest.org (207) 622-9288 Maine Forest Products Council 535 Civic Center Drive Augusta, Maine 04330	The Maine SIC works at the state level to promote the SFI Standard as a means to broaden the practice of sustainable forestry and ensure on-the-ground progress. These resource professionals volunteer a significant amount of time to assure that national SFI program objectives are consistently implemented and adapted to region-specific needs. Members of the Maine SIC will be involved in the design and testing of the app.
New Hampshire SIC	Malcolm Milne, Chair	mmilne@durginandcrowell.com (603) 763-2860 Durgin & Crowell Lumber 231 Fisher Corner Rd. New London, NH 03257	The New Hampshire SIC works at the state level to promote the SFI Standard as a means to broaden the practice of sustainable forestry and ensure on-the-ground progress. These resource professionals volunteer a significant amount of time to assure that national SFI program objectives are consistently implemented and adapted to region-specific needs. Members of the New Hampshire SIC will be involved in the design and testing of the app.
New York SIC	Eric Carlson, Coordinator	ECarlson@ESFPA.org (518) 463-1297 Empire State Forest Products Association 47 Van Alstyne Drive Rensselaer New York 12144	The New York SIC works at the state level to promote the SFI Standard as a means to broaden the practice of sustainable forestry and ensure on-the-ground progress. These resource professionals volunteer a significant amount of time to assure that national SFI program objectives are consistently implemented and adapted to region-specific needs. Members of the New York SIC will be involved in the design and testing of the app.

Durgin & Crowell Lumber Company	Peter Crowell, President	Peter@durginandcrowell.com (603) 763-2860 Durgin & Crowell Lumber Co, Inc. P.O. Box 160 New London, NH 03257	Durgin & Crowell is one of New England's largest manufacturers of Eastern White Pine lumber, and is SFI certified through the fiber sourcing standard. Most of the mill's logs come from small, privately-owned woodlots. Company staff will be involved in the design, testing and outreach of the app, and may bring unique insights on how to market its use and adoption.

Project Details

With a grant from the USDA Forest Service, the North East *State* Foresters Association (NEFA) is building a mobile application (an "app") designed to provide family forest landowners with information about their forests in Maine, New Hampshire, Vermont and New York. Using location-based technology, a landowner (or other user) will be able to access basic information on an individual parcel or stand, then connect with forestry resources including state forestry agencies, professional foresters, landowner associations, SFI State Implementation Committees and other resources. This project includes a significant component of stakeholder consultation during the design, creation and testing of the app and collaboration with partners in the marketing and launching phases.

This app, and the information it provides to landowners, represents a truly new and unique way for the forestry community to identify, provide information to and interact with the over 1 million family forest landowners who own over 22 million acres of forestland in the four-state region. (While not part of this project, once successful in the pilot region the app has the potential for geographic expansion).

NEFA requests funding to develop marketing material to raise awareness of the app once it is complete and to work with partners on the SICs and others to launch the app. We will use the resources for the creation, printing (as appropriate) and distribution of marketing material. At this time, a final marketing strategy has not been determined (and will rely upon stakeholder input to make this decision), but will likely include earned media, a brochure, a social media campaign and on-line videos.

Importantly, a key feature of this project is that the marginal cost for each additional landowner reached approaches $0. Once the app is designed, developed and marketed, a surge in use by family forest landowners does not have an incremental cost. As contrasted with traditional outreach and delivery mechanisms used by the forestry community (e.g., mailings, workshops, woods tours), an app has the ability to provide information at scale for minimal incremental cost, thus maximizing the value of the investment as it is marketed and utilized. Given this, it is NEFA's goal to reach as many interested landowners as possible, and utilize as many outreach

channels as possible. Funding from SFI would help support this important outreach effort by assuring once the app is built and tested, it becomes known and available to the largest number of forest landowners possible. In doing so, this app and the education and information it will provide will support SFI's efforts to broaden the practice of sustainable forestry by connecting with landowners and introducing them to professional forestry resources.

The requested grant is directly about assuring the outcomes sought – namely reaching as many forest landowners in the region as possible – are achieved using a well thought out marketing approach. SFI involvement will be through the active SICs in the region – as the individuals and companies involved will serve as key stakeholders of the effort. The SIC members will be part of the stakeholder process to design, test and market the app, and will help us identify how to best direct individuals to resources and information that supports sustainable forest management.

Project Goals	**Activities**	**Tangible Outcomes**	**Measure Success**	**Grant Funds**	**In-Kind or Matching Funds**
Goal 1:	Conduct stakeholder input sessions, develop and field test working app and associated web site	Functioning app and associated web site	Have app available for download and use by general public (targeting landowners)	$0	$225,000 (matching) and $250,000 (in-kind)
Goal 2:	Develop a range of outreach materials to raise awareness of the app and encourage downloads and use.	Landowners (and others) downloading and using the app to learn about specific parcels of forestland and the opportunity to connect with forestry professionals	NEFA expects 10,000 unique uses (and users) of the app (or associated website) within the first year.	$9,000	$25,000 (matching)

Project Timeline

Funding from the USDA Forest Service ($250,000) - matched by the states of Maine, New Hampshire, Vermont and New York and NEFA administrator Innovative Natural Resource Solutions LLC – requires completion of the project within two years. NEFA expects to have a fully functioning product available for use by landowners (Goal 1) within 18 months, and would like to have

something sooner. Some marketing materials may be developed and distributed as the product has a soft roll-out, and all marketing materials will be developed and in distribution channels (Goal 2) within two years of funding.

Project Budget

Expenditure	Amount	Matching Funds*	In-Kind Contributions*
Staff Salary and Benefits			$214,000 (NEFA states)
Operating Costs			
Research Activities	$3,000	$250,000 (USFS grant)	$36,000 (INRS discounted rate)
Meetings			
Travel			
Education & Outreach	$3,000		
Communications	$3,000		
Total	**$9,000**	**$250,000**	**$250,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

This project will leverage funds in a number of ways, including:

- Build upon a $250,000 grant from the USDA Forest Service – State & Private Forestry, as well as in-kind contributions from the forestry agency in each state and contractor Innovative Natural Resource Solutions LLC;
- Involvement of state forestry staff, working with the NEFA Executive Director, in all phases of the design, testing and marketing of the product;
- Involvement of landowner organizations, SIC members and other private sector partners in the design, testing and marketing of the product;
- Testing of the app by state forestry staff, SIC members and select members of the region's forestry community will provide valuable information on product use and limitations, while developing a working knowledge of the product with key supporters;
- Use by family forest landowners and others will engage them directly in learning about their forest, the opportunity to manage forests for a range of benefits, and the network that already exists to support them.

Maine's **Sustainable Forestry Initiative** [sm] *Program*
535 Civic Center Drive Augusta, ME 04330
Telephone (207) 622-9288 FAX (207) 626-3002

Working to implement and promote sustainable forestry since 1995

March 6, 2013

Charles Levesque, Executive Director
North East *State* Foresters Association
Post Office Box 2911
Concord, NH 03302

Dear Mr. Levesque:

The Maine SFI State Implementation Committee is pleased to support the North East *State* Foresters Association request for $9,000 to market a mobile app for forest landowners. This grant request, made to the *SFI Conservation & Community Partnership Grants Program*, leverages significant state and federal resources to support outreach to forest landowners on issues related to sustainable forestry.

Reaching family forest landowners and helping them access resources that encourage sustainable forest management is a constant challenge for many of our member companies. This app provides a new way to reach this important forestry constituency, and we are pleased you are seeking the greatest outreach possible. Our SIC members look forward to the opportunity to help shape and test the app while it is in development.

Good luck with this important project.

Patrick Sirois
Maine SFI Sustainable Implementation Committee

SFI IMPLEMENTATION COMMITTEE
NEW HAMPSHIRE

54 Portsmouth St.
Concord, N.H. 03301

March 1, 2013

Charles Levesque, Executive Director
North East State Foresters Association
Post Office Box 2911
Concord, NH 03302

Dear Mr. Levesque:

The New Hampshire SFI State Implementation Committee is please to support the North East State Foresters Association request for $9,000 to market a mobile app for forest landowners. This grant request, made to the SFI Conservation & Community Partnership Grants Program, leverages significant state and federal resources to support outreach to forest landowners on issues related to sustainable forestry.

Reaching family forest landowners and helping them access resources that encourage sustainable forest management is a constant challenge for many of our member companies. This app provides a new way to reach this important forestry constituency, and we are please you are seeking the greatest outreach possible. Our SIC members look forward to the opportunity to help shape and test the app while it is in development.

Good luck with this important project.

Sincerely,

Malcolm Milne, Chair
New Hampshire SFI Sustainable Implementation Committee

Empire State Forest Products Association

The people behind New York's healthy forests and quality wood products
www.esfpa.org

47 Van Alstyne Drive / Rensselaer, New York 12144 / p: 518-463-1297 / f: 518-426-9502

March 6, 2013

Charles Levesque, Executive Director
Northeast *State* Foresters Association
Post Office Box 2911
Concord, NH 03302

Dear Mr. Levesque:

On behalf of the New York SFI State Implementation Committee, we are pleased to support the Northeast *State* Foresters Association request for $9,000 to market a mobile app for forest landowners. This grant request, made to the *SFI Conservation & Community Partnership Grants Program*, leverages significant state and federal resources to support outreach to forest landowners on issues related to sustainable forestry.

Reaching family forest landowners - and helping them access resources that encourage sustainable forest management - is a constant challenge for many of our member companies. This app provides a new way to reach this important forestry constituency, and we are please you are seeking the greatest outreach possible. Our SIC members look forward to the opportunity to help shape and test the app while it is in development.

Good luck with this important project.

Eric Carlson
President & CEO

DURGIN AND CROWELL LUMBER CO., INC.

Manufacturers of Eastern White Pine

March 11, 2013

Charles Levesque, Executive Director
North East *State* Foresters Association
Post Office Box 2911
Concord, NH 03302

Dear Mr. Levesque:

The Durgin and Crowell Lumber Co., Inc. (Durgin & Crowell) is pleased to support the North East *State* Foresters Association request for $9,000 to market a mobile app for forest landowners. This grant request, made to the *SFI Conservation & Community Partnership Grants Program*, leverages significant state and federal resources to support outreach to forest landowners on issues related to sustainable forestry.

Reaching family forest landowners and helping them access resources that encourage sustainable forest management is a constant challenge for many of our member companies. This app provides a new way to reach this important forestry constituency, and Durgin & Crowell is pleased you are seeking the greatest outreach possible.

Good luck with this important project.

Peter B. Crowell, President
Durgin and Crowell Lumber Co., Inc.

PO Box 160 • New London, New Hampshire 03257-6550
Tel (603) 763-2860 • Fax (603) 763-4498
www.durginandcrowell.com

Verso Paper Corp.
2 River Road
PO Box 885
Bucksport, ME 04416

James Contino
Fiber Supply Manager
T 207 469-4101
F 207 469-1347
C 207 745-0833
E james.contino@versopaper.com

February 19, 2013

Eric Kingsley
Innovative Natural Resource Solutions LLC
107 Elm Street, Suite 100-G
Portland, ME 04101
kingsley@inrsllc.com

Dear Eric,

Verso Paper Corp is pleased to endorse the $9,000 funding request to SFI from the Northeast State Forester's Association for the mobile application project. We believe a mobile app using GPS technology could become a valuable source of forest management information to family forest owners in the northeast.

Our mills as well as many other mills in Maine depend on sustainably harvested timber from smaller family forest parcels. Sadly the trend over the past ten years is for this landowner class to increase growth and decrease harvests. This lack of management is of concern. Perhaps widely available hand-held technology might become a pathway for the next generation to get interested in more active forest management.

Good luck with this worthwhile project.

James Contino
Fiber Supply Manager
Verso Paper Corp.

SUSTAINABLE FORESTRY INITIATIVE

Good for you. Good for our forests.℠

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Charles Levesque, as a representative of the North East *State* Foresters Association and a Partner in *Marketing a Mobile App for Forest Landowners*, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the North East *State* Foresters Association to sign this agreement.

Signed:

Charles Levesque

Charles Levesque
Executive Director
North East *State* Foresters Association
March 8, 2013

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Patrick Sirois, as a representative of the Maine SFI State Implementation Committee and a Partner in *Marketing a Mobile App for Forest Landowners*, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use the organization name as written above and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the Maine SFI State Implementation Committee to sign this agreement.

Signed:

Patrick Sirois
Maine SFI State Implementation Committee
March 11, 2013

SUSTAINABLE FORESTRY INITIATIVE

Good for you. Good for our forests.℠

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Malcolm Milne, as a representative of the New Hampshire SFI State Implementation Committee and a Partner in *Marketing a Mobile App for Forest Landowners*, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use the organization name as written above and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the New Hampshire SFI State Implementation Committee to sign this agreement.

Signed:

Malcolm Milne
New Hampshire SFI State Implementation Committee
March 11, 2013

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Eric Carlson, as a representative of the New York SFI State Implementation Committee and a Partner in *Marketing a Mobile App for Forest Landowners*, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use the organization name as written above and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the New York SFI State Implementation Committee to sign this agreement.

Signed:

Eric Carlson
New York SFI State Implementation Committee
March 11, 2013

DURGIN AND CROWELL LUMBER CO., INC.
Manufacturers of Eastern White Pine

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Peter B. Crowell, as president of Durgin and Crowell Lumber Co., Inc., a Partner in *Marketing a Mobile App for Forest Landowners*, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use the organization name as written above and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized to sign this agreement.

Signed:

Peter B. Crowell, President
Durgin and Crowell Lumber Co., Inc.
March 11, 2013

PO Box 160 • New London, New Hampshire 03257-6550
Tel (603) 763-2860 • Fax (603) 763-4498
www.durginandcrowell.com

Organization Information:

Lead Organization Name and Address	Ohio Forestry Association Foundation, Inc.
Name, phone and email for Project Director	John Dorka, 614-497-9580, john@ohioforest.org
Lead Organizational Mission Statement (25 words or less)	Supports charitable, educational and scientific purposes to encourage the conservation of Ohio's forests and the development of industry which uses the forest resources.
Lead Organization Annual Operating Budget	$60,885
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1) Bob Mulligan, Ohio DNR-Division of Soil & Water Resources, bob.mulligan@dnr.state.oh.us, 614-562-0235; 2) Bill Stanley, The Nature Conservancy of Ohio, bstanley@tnc.org, 614-717-2770 Ext. 137.

Project Overview:

Confirmed Project Partners (list organization name only)*	**Project Title**	**Amount Requested**	**Total Project Budget**	**Brief Project Summary (50 words or less)**	**What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))**
Ohio Forestry Association Foundation; Ohio Dept. Natural Resources, Division of Forestry; Ohio State University, School of Environment & Natural Resources; Ohio's SFI State Implementation Committee	Evaluating Forestry Best Management Practices in Ohio	$45,000	$57,000	The protection of water resources through Best Management Practices relates to Objective 3 of SFI's 2010-2014 Program and is regulated in Ohio through pollution laws and the Clean Water Act. This project supports a statewide BMP effectiveness study that will improve Ohio's BMP program and support SFI's water quality objectives.	Performance Measure (PM) 2.3, PM 3.1, and PM 3.2; all indicators under the preceding performance measures.

Project Partners:

Confirmed Project Partners (list organization name only)*	**Primary Contact Name & Title**	**Complete Contact Information (Email, Phone Number, Mailing Address)**	**Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)**
Ohio Forestry Association Foundation, Inc. (OFA)	John Dorka, Executive Director	john@ohioforest.org 614-497-9580 746 Morrison Rd. Columbus, OH 43230	The Ohio Forestry Association (OFA) was established in 1903. It supports the management of forest resources and improvement of business conditions. OFA administers Ohio's Master Logger program, which is a voluntary certification program for logging contractors that requires them to have training in BMPs for erosion prevention, safety training, and CPR/first aid. The organization also sponsors the Ohio Tree Farm Committee. John Dorka has been the organization's Executive Director since 2008 after retiring from a career with the Ohio DNR-Division of Forestry that included him serving as the Chief and State Forester from 2002 – 2007.
Ohio Dept. of Natural Resources, Division of Forestry (ODNR-DOF)	Cotton Randall, Special Projects Administrator	Cotton.Randall@dnr.state.oh.us 614-265-6667 2045 Morse Rd., H-1 Columbus, OH 43229	The Ohio DNR-Division of Forestry manages Ohio's 200,000+ acres of State Forest land, which are certified to be in conformance with the SFI 2010-2014 Standard. ODNR-DOF also provides technical forestry assistance to private woodland owners through its service forestry program. Cotton Randall worked over four years as a service forester prior to serving in his current position, where he coordinates Ohio's Forest Legacy Program, the state Forest Stewardship Committee, and statewide forest planning related to the implementation of the State Forest Action Plan. Cotton also coordinates the state's participation in the Forest Inventory & Analysis program and serves on Ohio's SFI State Implementation Committee and Ohio DNR's Environmental Review Team.

Ohio State University (OSU)	Eric McConnell, Assistant Professor and Forest Products Specialist	Mcconnell.213@osu.edu 614-292-9838 2021 Coffey Rd., 210 Kottman Hall Columbus, OH 43210	The Ohio State University serves as the state's land grant institution. In that role, OSU Extension provides research, technical support, and outreach to citizens, organizations, and communities. Forestry-based outreach transfers information and technology to the forest landowner, timber harvester, and wood-using mill. Eric McConnell is the State Forest Products Extension Specialist. Eric conducts applied research based on the needs of the forest products industry and provides outreach via workshops, publications, and online and electronic media. Eric is a board member of the Ohio Forestry Association and Ohio Valley Lumber Drying Association. He is also a member of several national professional organizations.
Ohio SFI Implementation Committee (SIC)	Eric Roush, Forester and Chair of SIC	ERoush@glatfelter.com 740-772-3106 327 S. Paint St. Chillicothe, OH 45601	Ohio's SIC has been working for a decade promoting training and landowner outreach, maintaining integrity of the SFI program and supporting and promoting responsible forestry and the SFI program in Ohio. Eric Roush is the current Chair of Ohio's SIC.

Additional Description of Roles of Project Partners:

The Ohio Forestry Association Foundation (OFA) will partner with three key collaborators on this project: the Ohio DNR Division of Forestry (ODNR-DOF), the Ohio State University (OSU), and the Ohio SFI Implementation Committee (SIC). OFA is a non-profit organization that supports forestry-related industries and enterprises in Ohio and management of the state's forest resources. OFA plays a key role in BMP implementation statewide through its voluntary Master Logger program, which certifies that loggers have received BMP training, as well as other training like logger safety and first aid. OFA also coordinates BMP monitoring through its Master Logger program. The ODNR-DOF is the largest forest land holder with SFI certified forest lands in Ohio with over 200,000 acres of certified state forest land, and ODNR-DOF provides one-on-one landowner assistance to private forest landowners across the state. OSU also plays an important role in promoting BMP use through its Ohio Woodland Stewards program, which educates woodland owners through workshops, publications, and online resources. OSU also provides expertise in study design and data analysis that will be valuable in initiating the statewide BMP study and interpreting its results. Ohio's SIC is a key supporter of this project and a group that facilitates partnership efforts like this with its membership of Ohio's key players is sustainable forest management in Ohio. All four project partners are crucial to the success

of this project, as they complement each other strengths by providing direct links to logging community, providing research support, and facilitating landowner outreach through workshops. All project partners will contribute to the primary effort of this project, which is a statewide evaluation of BMP effectiveness in Ohio that will supplement BMP monitoring that currently occurs through the SIC and the Master Logger program. This project will focus on private lands, as those data are severely lacking, but some sample sites will also be located on public lands. After completing the statewide BMP study, all partners will share the study results through trainings and workshops with the core groups that they service: ODNR-DOF will adjust management on the state lands if needed and will communicate with individual private landowners through its Forest Stewardship program, OFA will report the projects results and adjust its Master Logger BMP trainings if needed, and OSU will do the same in its woodland stewards workshops and newsletters. The SIC will help coordinate this work and ensure that these outreach efforts will continue beyond the completion of this project and support the growth of sustainable forest management in Ohio through the SFI program.

Project Description:

In Ohio's 2010 Forest Action Plan, soil and water conservation is listed as one of the top 6 forest-related issues in the state (State Issue 3). An underlying strategy in Ohio's Forest Action Plan (Strategy 3.1.2) focuses on promoting the use of voluntary Best Management Practices (BMPs) during logging operations. This emphasis in Ohio on protecting water quality is consistent and complementary to the SFI standard, which requires its program participants to implement BMPs during all phases of management activities (e.g., all indicators under Performance Measure 3.1). Past assessments of BMP effectiveness in Ohio and other states have generally found them to be highly effective in preventing erosion and nonpoint-source pollution, but periodic monitoring is important as it provides data over time and a range of conditions (e.g., weather) and it strengthens the link between the use of BMPs and the protection of water quality. While BMP monitoring currently occurs in Ohio, this project will greatly expand the number of sites monitored across the state and collect additional data. If deficiencies are found, practices will be adjusted and/or targeted training conducted to ensure those deficiencies disappear and the desired future condition of clean water and highly productive soils are maintained indefinitely into the future.

This project builds on the previous statewide BMP study completed in1999 and establishes a protocol for consistently monitoring BMP effectiveness over time. The project will use a BMP monitoring protocol that is based on techniques and measurements that are used in other states (e.g., http://www.na.fs.fed.us/watershed/bmp.shtm#FieldGuide), which will enable sharing of data at the multi-state and regional scale. For example, the Appalachian region of southeastern Ohio has topography that leads to higher risk of erosion and water quality impacts if silvicultural BMPs are not followed, and it shares these traits with other Appalachian states, including Maryland, which conducts periodic BMP monitoring. Results from this project will lead to a

more robust dataset on BMP effectiveness at the regional scale that will provide additional support to the objectives and indicators of the SFI standard related to water quality.

The outcomes of this project will be promoted through workshops and trainings with forest landowners, logging companies, and staff of the Ohio Division of Forestry. At least one extension factsheet will be developed that reports the results and makes new recommendations related to BMP implementations, if necessary. The factsheet may address other water quality issues by including new information/recommendations about the identification and protection of wetlands and riparian areas from a related ongoing study (relates to SFI PM 3.2); however, funds from this grant would not be used for the other study. These education and outreach efforts will acknowledge SFI's involvement in the project through this conservation grant, if awarded, as well as the role of forest certification and the SFI standard in promoting water quality protection as an important component of overall sustainable forest management. Specific project goals and activities are described in the table that follows.

Project Goals	**Activities**	**Tangible Outcomes**	**Measure Success**	**Grant Funds**	**In-Kind or Matching Funds**
Goal 1: Evaluate BMP use and effectiveness across Ohio	1) Visit 100 logging sites and evaluate BMPs (majority of sites on private land but some public) 2) Write report on BMP use/effectiveness	Data from BMP study will provide guidance/support for Objective 3 of the SFI Standard, and help create a more robust dataset on BMP effectiveness on a regional/national scale.	· 100 logging sites evaluated · Report completed	$45,000	
Goal 2: Increase use and effectiveness of BMPs through education / outreach	1) If study finds deficiencies in Ohio's BMPs, adjust current BMPs accordingly 2) Share study results and promote BMP use through trainings, workshops, and publication.	If study results show deficiencies in current BMPs, the recommended practices will be adjusted and/or training on BMPs conducted to ensure those deficiencies are addressed/minimized. Outreach activities will also promote increased BMP implementation.	· One extension factsheet developed on protecting water quality that includes results from BMP study. · At least 2 workshops conducted that incorporate results / recommendations from study report		$12,000

Project Timeline

Total Project Length – 2 years

Approximate Project Milestones:

0-3 months – Identify and hire individual(s)/contractor(s) to conduct the BMP study and write report

3-15 months – BMP study conducted (100 logging sites identified and evaluated for BMP use and effectiveness)

15-17 months – BMP study report completed and submitted to project partners

17-24 months – Extension factsheet developed and at least 2 workshops conducted on BMPs that incorporate study results

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits			**$5,000** (OFA for administrative support of project and trainings/workshops)
Staff Salary and Benefits			**$5,000** (ODNR-DOF for assistance/support during study design, site identification, and data collection)
Operating Costs			
Research Activities (conduct field evaluations of BMPs & develop report)	**$45,000** (100% will support individual(s) / contractor(s)		

	conducting study)		
Meetings			
Travel)			
Education & Outreach			**$2,000** (OSU for factsheets &/or workshops)
Communications			
Total	**$45,000**		**$12,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Sediment from Stream-Connected, Unpaved Road Systems: Quantification, Control and Development of Best Management Practices

Lead Organization: Oregon State University

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Oregon State University	Kevin, Boston, Associate Professor	College of Forestry Oregon State University 541-737-9171 Kevin.boston@Oregonstate.edu	A public, land grant university
Giustina Land & Timber Co.	Eric Kranzush, Forester	P.O. Box 989 Eugene OR 97440 541-3452301 eric@giustinaland.com	A privately held timber company with operations in western Oregon.
Plum Creek Timber	Jeff, Light, Forest Hydrologist	PO Box 1528 Coos Bay OR 97420 (541) 267-9205 Jeff.light@plumcreek.com	One of the largest timberland REIT in the United States with operations in 19 states.

Lead Organization Name and Address	Department of Forest Engineering and Resource Management
Name, phone and email for Project Director	Dr. Kevin Boston, PE, RPF 541-737-9171 Kevin.boston@oregonstate.edu
Lead Organizational Mission Statement (25 words or less)	To educate scholars and users of forest resources, to conduct problem-solving research on the use of forests and share our discoveries and knowledge with others.

Lead Organization Annual Operating Budget	$26 million
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Kevin Lyons, University of British Columbia, KevLyons@mail.ubc.ca Arturo Montoya, University of Texas San Antonio, Arturo.Montoya@utsa.edu

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Guistina Timberlands, Plum Creek Timber Company	Development of New Best Management Practices for the Reduction of Road Generated Sediment Associated with Live Stream Crossings.	$174,918	$235,636	A control and three alternative treatments will be tested to determine if generation road-generated sediment can be reduced. The volume and sources of the sediment will be identified using various characteristics of the sediment such as elemental composition and organic content.	This project will address *Objective 3* of the SFI program by developing and monitoring two potential best management practices for reducing forest road generated sediment. It develops the expertise under *Indicator 5* to allow experts to identify appropriate protection measures.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Baseline establishment	Determine background sediment from active hauling on stream-connected segments	Determine background sediment from active hauling on stream-connected segments	Establish a baseline for improvement in novel sediment sequestration methods.	$52,985	$5,444
Goal 2: Improved Methods	Develop two novel sediment sequestration techniques.	Establish improvement due to implementation of techniques.	A reduction in aggregate and subgrade generated sedimentation	$121,933	$55,274

Executive Summary:

This project will develop and test alternative road construction practices with the goal to lessen the sediment generated from forest roads crossing live streams. There will be three techniques developed and tested, one, is the use of controlled compaction and high quality construction materials. Method two will use berms constructed of sand and geotextiles. Method three will use a wood-generated filter. All methods will be compared with a control using standard constructions practices. Hauling and artificial rain water through a sprinkler system will be applied and the sediment will be captured in the road-side ditch. This sediment will be further classified to determine if its original source is from the road surface or the ditch. Results will be shared that compare these alternative construction practices for their ability to reduce sediment generated from forest roads.

Introduction:

Roads have always been a double-edged sword. They provide access to valuable resources, infrastructure for management and fire hazard mitigation, as well as access to a wide variety of recreational activities. However, the effects of roads are not always benign. They can impact water quality by increasing suspended sediment levels in streams and water bodies. The Sustainable Forest Initiative (SFI) is a forest certification scheme that establishes various standards to evaluate sustainable forest practices. Water quality standards are a significant component of these standards. SFI relies on

Best Management Practices (BMPs) to reduce impacts of forestry on water resources. BMP's have been developed for many of the existing sources of road-associated sediment.

These practices have demonstrated significant reductions in sediment production from forest roads; however, problems remain with road segments that cross active stream channels that do not have an opportunity to divert the water before it enters the stream. These segments may be a sag vertical curve that has limited opportunity to divert the water before it enters the stream. This project will develop and test novel techniques for the prevention of sediment transport on these types of road segments. Therefore, the results of this project will be used to develop new information to create or revise BMP's to support the development of management guidelines for forest road sediment generation.

Project Description:

This project will develop alternative treatments of unsealed aggregate roads to reduce sediment generation or transport into the streams by either limiting the generation of sediment or controlling the infiltration of suspended sediment into nearby stream systems.

The project is a two-year project. Year one will complete the one set of four stream crossings replication, while year two will complete the second set of four replicates. Each set of replicates will be performed on one of the industry cooperators lands. A project time line is shown below (table 1).

As part of the first phase we will examine a managed watershed representative of the Oregon Coast Range to determine the concentration and length of live stream crossings. This will allow for inferences from our Phase II and III to be made for a larger population. This step will use a combination of existing data and original data collected as part of this study. Eight live stream crossing will be located on cooperators lands. This will allow for two replicates of a control with three treatments. The control test will be current construction practices. The first treatment will use improved construction practices that will include a subgrade compaction of at least 95% of the Standard Proctor compaction level, surfaced with rock that generates less than 15% fines in the microDeval test. The second treatment is a geosynthetic wrap-face, filter berm system (see fig. 1) to allow for free passage of water but retention and filtration of sediment. The berms will be constructed with well-graded sand with a designed infiltration rate to allow water movement, but capture sediment. The final treatment will use a densely packed, well-graded, strands of Douglas Fir fibers, prefabricated into bales to provide filtration of the runoff similar to the sand filter system to capture the road generated sediment prior to entering the stream. These bales are durable and easily placed at key points in the road system, thereby resulting in easier construction.

ID		Task Name
1		**Preliminary Study**
2	■	Research and inventory live stream crossings
3		Locate study sites cooperator I
4		Locate study sties on cooperator 2
5		**Year One Replicates**
6		Construct improved road materials
7		Construct geotextile berms
8		Construct Wood-berm filters
9		Identify currnet practics (control)
10		Install water quality sampling in ditch
11		Install rain water simualtor
12		**Apply Traffic & rainfall**
13		Apply Traffic
14		Include amount and sources of sediment
15		Measure rut formaiton
16		Analyze results
17		Prepare mid-projects presentations and report
18	■	**Year two Replicates**
19	■	Construct improved road materials
20	■	Construct geotextile berms
21	■	Construct Wood-berm filters
22	■	Identify currnet practics road (control)
23	■	Install water quality sampling in ditch
24		Install rain water simualtor
25		**Apply Traffic & rainfall**
26		Apply traffic
27	■	Include amount and sources of sediment
28	■	Measure rut formaiton
29	■	Analyze results
30		Prepare Final manuscrips

Table 1: Research Plan

Traffic will be simulated using industry relevant loads that will be repeatedly driven over the test track to simulate traffic that will occur during forest operations. Passes will be recorded with an automatic traffic counter. Artificial rain will be applied to the roads at rates near and slightly higher than those at rates where hauling activities would cease as a result of either local guidelines or regulations. Rainfall will be applied using an automated sprinkler system. Thus, as sediment is generated from the hauling activities, it can be mobilized and collected in the road-side ditch. Sediment samples will be collected using an Isco Water Sampler located in the adjacent ditch. Rutting and subgrade stresses will be recorded with settlement plates and earth pressure cells, respectively. Additionally, degradation of the rock surfacing will occur to varying extents, facilitating measurement and quantification of sediment that ultimately enters an adjacent stream system.

Due to the varying mineralogy between the natural soil in the road-side ditch, the sediment output of the aggregate surfacing can be assessed using the elemental composition of these end-members. Soils in the watershed are likely to have higher organic matter (carbon, nitrogen, and sulfur) concentrations than mined aggregate material. Similarly, there will be differences in the inorganic composition between weathered soils forming in sandstone (e.g. high silica and low calcium) and unweathered material derived from basalt (e.g. high iron and calcium). For the study area, we will collect end-members from areas that potentially contribute sediment to the roadside ditches (e.g. ditch, roadbed , road surface, degraded rock).

All samples will be analyzed for physical characteristics (e.g. particle size distribution) and organic (e.g. carbon, nitrogen, and sulfur) and inorganic (e.g. iron, aluminum, calcium) elemental characteristics. End-member samples will be compared to suspended sediment collected from the ditch and the proportion of each end-member contributing to the suspended sediment load will be quantified utilizing end member mixing models. The results of these hauling trials will set the base line for evaluating efficacy of the aforementioned sediment control systems, concurrent to establishing "signatures" on the origin of sediment in these sections during wet weather. The third phase of the project will include analysis of data measured from the comprehensive experimental testing suite. The robust data collection will allow for insight into various aspects of unsealed aggregate road performance under traffic loading, including sediment output from the road and ditch, rutting resistance, distribution of subgrade stresses and evaluation of cost-benefits of common aggregate surfacing, geotextile wrap-face berm filter system, and wood strand bale filter system. Deliverables will include a summary of findings provided in a final report, publication of analysis in refereed journals, and ultimately, creation or revision of current BMP's for sediment control for unpaved roads in stream-connected systems.

Communications:

Results will be presented in regional and national conferences with an emphasis on reaching the practitioners. Web pages maintained by OSU college of Forestry will be developed to document the project. It will contain the designs drawings and results from the various materials proper test to allow for rapid deployment of these methods if they are shown to reduce road-generated sediment.

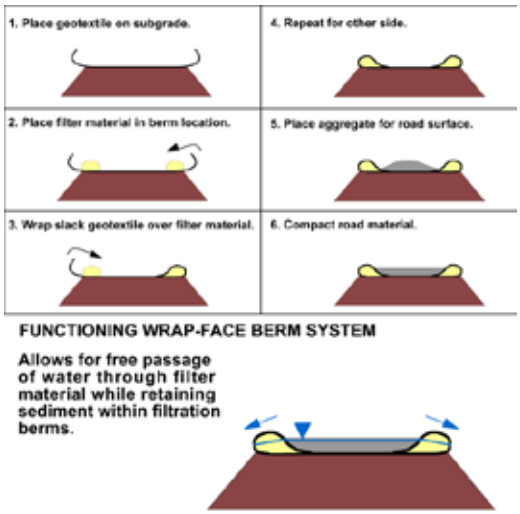

Figure 1. *Wrap-Face Berm Construction.*

Budget:

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits for two year project			
Dr. Kevin Boston	(0.00 FTE)	0.025 salary from OSU= $7,350	
Dr. Jeff Hatten	(0.00 FTE)	Funds for FW research project= $5,446	
Dr. Ben Leshchinsky	(0.0 FTE)	Funds for FW research project = $5,714	
Research Assistant (full time – for 2 year)	(1.0 FTE) 40,000 + benefits = $134,418	None	
Hourly Undergraduate (sample processing)	$3,000		
Graduate Research Assistant		(0.49 FTE) + tuition and fees for graduate research assistant $42,208	
Personnel Costs	$137,418	$60,718	
Operating Costs			
Research Activities			
Phase I:background	$10,000 for chemical		

determination	analysis of 140 sediment/end-member samples		
Phase II: construction – rock and compaction	$10,000 for rock and compaction		
Phase II: Geotextile wrap-face berm system.	$5,000 for rock geotextiles		
Phase II	$2,500 for Wood Strand Materials		
Meetings – travel to meeting to present results.	$1,000		
Travel- in state to research site	$6,000		
Phase III: Education & Outreach	$1,500		
Phase III: Communications & Publishing fees	$1,500		
Access to land for construction of stream crossings and completion of experiment.			One set of replicates will be completed on Plum Creek lands while the other will be completed on land owned by Giustina Land &Timber Co. In addition to the land access to water for artificial rainfall will be provided.
Total Operating Costs	$37,500		
Total	**$174,918**	**$60,718**	

SUSTAINABLE FORESTRY INITIATIVE

Good for you. Good for our forests.℠

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Eric Kranzush, as a representative of Giustina Land & Timber Co. and a Partner in Development of best management practices to reduce sediment from aggregate roads in coastal Oregon, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI℠ Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Giustina Land & Timber Co. to sign this agreement.

Signed:

Name

Forest Manager
Title

Giustina Land & Timber Co.
Organization

03/12/2013
Date

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, Bill Frings, Senior Resource Manager – Oregon Operations , as a representative of Plum Creek Timber Company and a Partner in Development of New Best Management Practices for the Reduction of Road Generated Sediment Associated with Live Stream Crossings , hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Plum Creek Timber Company to sign this agreement.

Signed:

Name

Senior Resource Mgr.

Title

Plum Creek Timber Co.

Organization

3/15/13

Date

Organization Information

Lead Organization Name and Address	Ozark Regional Land Trust ("ORLT"), P.O. Box 440007, St. Louis, MO 63144
Name, phone and email for Project Director	Abigail Lambert, (314) 283-5759; aflambert@orlt.org
Lead Organizational Mission Statement (25 words or less)	Through carefully designed programs of conservation and appropriate land management, ORLT will empower people to protect the natural resources of the Ozarks forever.
Lead Organization Annual Operating Budget	$285,700 (2013)
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	**Greg Iffrig**, L-A-D Foundation, Liaison to the board of directors. (314) 621-0230 greg.iffrig@ladfoundation.org. The L-A-D Foundation is a Missouri private operating foundation dedicated to sustainable forest management, protection of exemplary natural and cultural areas in Missouri and owner and manager of Pioneer Forest, the largest privately owned forest in Missouri. **Jason Deschu, Forester, Triangle Mule Logging LLC.** (573) 291-7906 jadeschu@hotmail.com

Project Overview

Confirmed Project Partners	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Missouri Department of Conservation	Working Forest Conservation Easement in the Meramec watershed.	$67,000	~$329,306	Assist ORLT to purchase two contiguous conservation easements to permanently protect from development 500+ acres and two miles of creek frontage along the Huzzah. Completion of these projects will create a 1,000+ acre block of undeveloped land, three quarters of which will be intact, sustainably managed forests.	Objectives: 1.Forest Management Planning. 2.Forest Productivity. 3.Protection & Maintenance of Water Rscs. 4.Conservation of Biological Diversity including Forests with Exceptional Conservation value. 5.Management of Visual Quality and Recreational Benefits. 6.Protection of special sites. 9. Use of Qualified Resource and Logging professionals. 10.Adherence to BMPs

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Missouri Department of Conservation. ("MDC")	Rob Pulliam, Fisheries Management Biologist	Shaw Nature Reserve Ofc 108 Garlick Lane Villa Ridge, MO 63089; 636-451-3512 Ext. 6024 Rob.Pulliam@mdc.mo.gov	MDC is the state agency responsible for protecting and managing Missouri's fish, forest and wildlife resources. MDC facilitates and provides incentives for participation in resource management activities. MDC is an SFI program participant. Rob Pulliam has been a project manager for numerous projects at the watershed scale and is experienced in working with landowners and landowner committees. Rob and other MDC staff provide important natural resource info that helps ORLT to draft and negotiate terms of conservation easements. They also provide technical and funding assistance to landowners interested in implementing conservation practices including sustainable forest management.

Project Details

Ozark Regional Land Trust has numerous working forest conservation easements and all are consistent with and exemplify most of SFI's sustainable forestry objectives – see list in Project Overview.

Ozark Regional Land Trust ("ORLT") is a 29 year old non-profit land conservation organization that protects farms, forests and other natural resources and habitat in the Ozark Region of Missouri and Arkansas. The primary tools used to accomplish its mission are the acquisition of land and conservation easements. Since its inception, ORLT has completed 114 projects protecting 25,600 acres, including extensive tracts of forestland, farmsteads, river corridors, caves, springs, and habitat for threatened and endangered species. A project map is provided on page 8 of this proposal. ORLT has a 17-person board of directors, a four person staff and a membership of 800-1000 people.

ORLT holds and monitors many working forest conservation easements and one of its largest and oldest projects is Alford Forest, 4,300 acres of permanently protected native forest managed under a sustainable forest management plan, using single-tree selection harvesting method. In 2006, a long-term study was initiated to assess the health of the forest at five-year intervals. This process helps ORLT ensure that the original objectives of wildlife habitat protection, improved tree health, timber production and long-term sustainability of these natural resources are achieved.

ORLT's conservation easements include a variety of forestry provisions that are designed to protect and enhance forest resources now and for the future, protect landscape values and help sustain the local forest and agriculture economy and the regional community that depends on it. Encouraging sustainable forestry practices also enables landowners to derive economic value to support land ownership and stewardship in the long-term. ORLT's forestry provisions include: 1. Specifying certain areas of the property as "Designated Forest Areas" that will never be converted to non-forest use. 2. Requiring a Forest Management Plan to be prepared by a professional forester before conducting a timber harvest, 3. Providing forest practice guidelines and requiring the use of up-to-date Best Management Practices to protect important natural resources on the property (water, wildlife, unique/special habitats). 4. Requiring notification to the land trust before planning a harvest to obtain any needed guidance and support on forest management requirements and finding professional foresters and loggers.

ORLT has two phases of its mission and work -- *Land Protection* and *Land Stewardship*. *Land Protection* involves identifying important conservation lands and protecting them through conservation easements, fee ownership, or encouraging better land use practices. ***Land Stewardship*** programs involve maintaining and enhancing the conservation values and public benefits of land already under protection, such as monitoring conservation easements and following up on reserved rights (including forest management) as well as ecological restoration on nature preserves (ORLT-owned land). ORLT has built a Stewardship Fund of approximately $1.6 million to ensure that it can monitor, defend and support the lands that it has protect and it has a full-time Stewardship Director to oversee these responsibilities.

The conservation easement projects of this proposal are located on the Huzzah Creek, a major tributary of the Meramec River one of ORLT's priority rivers/watersheds within its River Stewardship Program. The Meramec River is globally significant due to aquatic and terrestrial diversity. Much of the River's upper watershed remains forested and these forests are considered biologically important and have been given a high priority for conservation. ORLT and conservation easements play an important role in helping to maintain an intact ecosystem while guiding forest management in order to protect specified forest values and surrounding landscape features. It also helps sustain a forest economy and enable landowners to continue to derive economic value from the land to support the ongoing costs of ownership and stewardship.

Project Activities to promote the outcome of the project and SFI involvement.

Over the last seven+ years, ORLT has partnered with the Missouri Department of Conservation ("MDC), USDA-Farm Service Agency and others to offer funding and technical assistance to landowners in the Huzzah watershed, a major tributary of the Meramec and a priority for many. A variety of conservation practices and tools are offered to help protect the overall health of the Huzzah creek and watershed including stabilizing eroding streambanks, protecting and/or reestablishing forested riparian corridors, exclusion fencing (of cattle) from the river and riparian corridor, ***and forest management guidance and planning.*** This work led to many miles of protected stream banks and an increased awareness of ORLT and conservation options including conservation easements. *It also led to a number of landowners asking and getting professional assistance on forest management and forest management plans.* Ongoing outreach by

ORLT, MDC and a recently created local landowner committee is expected to lead to more informed landowners and better forest management.

In 2011, ORLT completed a key conservation easement project on the Huzzah that permanently protects from development 274 acres and a mile of creek frontage. The property was three-quarter forested and now has an approved forest management plan that was prepared by a professional forester and that requires sustainable management of the resource. Now four more landowners on the Huzzah are interested in protecting their land with conservation easements. Three of these landowners/properties are contiguous to the easement completed in 2011 and are the projects that ORLT is asking for support from SFI. Ongoing outreach by ORLT, Missouri Department of Conservation and a local landowner committee that was recently created is expected to lead to more conservation work and conservation easements in the watershed.

The tool used in these projects is a *conservation easement ("CE")*. A CE is a permanent agreement between a landowner and a qualified organization, like ORLT, that restricts future development on a property to a mutually agreed upon level. Each CE is unique and the terms are negotiated to meet the land protection goals of the landowner within guidelines set forth by the ORLT and the IRS (to ensure that the easement is eligible for various tax deductions). The landowner continues to maintain ownership of the land and the right to use the land for agricultural, forestry or habitat protection purposes.

Conservation easements will limit development, help prevent forest fragmentation and land disturbance with relatively modest public investment while also keeping land in private ownership and productive use. These projects will also improve riparian habitat and water quality in the Upper Meramec River Basin by creating permanent forested riparian corridors, excluding livestock from streams and riparian corridors, requiring best management practices on farms and sustainable forest management in designated forest areas.

In the past, ORLT was only able to offer donated CEs to landowners who wanted to protect their land. Thanks to a key funder interested in protecting land and river resources in the Upper Meramec, ORLT was able to create a new program to *purchase* CEs and interest a wider group of landowners and more effectively target key parcels on the Huzzah. Though the cost of purchased conservation easements is significantly higher than donated easements they are still a fraction of outright acquisition of land.

To promote SFI's principles for sustainable forestry, SFI materials could be distributed to these two landowners and others who we are working with in the watershed. SFI would be acknowledged as a key project supporter in all press release and/or articles written about the projects once they are completed.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or MatchFunds
Goal 1: Acquire two working forest conservation easements.	Complete negotiations on the terms and price of the CE; finalize the CE document and baseline report, sign and record the documents.	Two signed and recorded working forest CEs.	500 acres and 1+ mile of creek frontage/riparian area protected from development and subject to the terms of the CE and together with adjacent protected land, 1,000 acre block of land protected from development and forests protected from conversion and managed sustainably.	$67,000	$259,806
Goal 1a: Keep working forest land intact.	Work with landowner to identify certain areas of the property as "Designated Forest Areas." Complete baseline map to show the location of these areas.	Certain areas of the property are "Designated Forest Areas." That will never be converted to non-forest use.	300 acres of forestland protected from development and conversion and managed sustainably.		
Goal 1b Private forest has forest management plan prepared by professional forester.	Work with landowner to find a professional forester and provide guidance on preparing the plan subject to the requirements of the CE.	Healthy forest, protected from conversion and sustainably managed and the other important natural resources on the property are identified and protected.	300 acres of forest intact and managed sustainably and contiguous to other protected properties and state forest so that block of forestland is 1,000 acres all managed sustainably.		$1,500
Goal 1c: Over 1 mile of forested riparian corridor (100') permanently protected.	Plant trees on the Lea property to create 100' riparian buffer.	Healthier land, forest and creek.	Completed CE with protective buffer provisions and more landowners interested in CE.		$1,000
TOTAL				$67,000	$262,306

Project Timeline: We expect to complete both conservation easements ("CEs") before April 2014. The terms of the CE agreements are in the final stages and appraisals have been conducted. The final sales price on both is still under negotiation. ORLT anticipates that the landowners will sell their CEs approximately 30% below the appraised value (a "bargain sale"), though it could be more. A fact sheet "Steps of the Conservation Easement Process" is available if needed. Our goal is to complete the Dollard and Lea conservation easements simultaneously since they are neighbors/friends and manage their property essentially as one parcel. *Note* that we are not always able to anticipate every issue that will arise before closing on an easement project. We have been working with these landowners for over a year, have addressed/negotiated the key terms of the easement and plan to close by the end of 2013, but an easement is not final and complete until it is signed and recorded.

Project Budget: ORLT's staff time spent on this project is less than 3 percent of the total cost of the project (see table below) and the funds that will cover this will come from matching funds on the project, not from SFI. Nevertheless, the breakdown of tasks on staff time is approximately 30% travel, 20% meetings/communications, and 50% writing/researching/crafting the easement document. MDC (Rob Pulliam, Fisheries Biologist, and Mark Johanson, Forester) will provide technical and funding assistance on an array of conservation practices including forestry) on these properties/projects. Below are two tables showing project costs and funding sources.

Detailed Project Costs - Lea/Dollard Conservation Easements

DIRECT COSTS:	**Lea**	**Dollard**	**JUSTIFICATION**
ITEM	**354 acres**	**160 acres**	
Appraised Value of the CE	$ 273,000	$ 120,000	Actual purchase price still under negotiation.
Projected Purchase Price	$ 191,100	$ 84,000	30% below the appraised value.
Forestry assistance/guidance	$ 1,500	$ 1,000	Forest mangement plan for Dollard; tree planting for Lea.
INDIRECT COSTS:			**JUSTIFICATION**
ITEM	**AMOUNT**	**AMOUNT**	
Stewardship Contribution	$ 21,706	$ 14,000	Calculated in accordance with ORLT's Policy on Stewardship
Baseline Doc Report	$ 2,000	$ 2,000	Cost to prepare baseline report: *Inventory of features of the Property.*
CE Appraisal	$ 2,000	$ 2,000	Appraisal cost.
Title/Closing/Recording Fees	$ 1,000	$ 1,000	Estimated cost of title/closing/recordation.
Staff time negotiate/close CE	$ 3,000	$ 3,000	Easement prep and overseeing all documents.
TOTAL Indirect Costs:	**$ 29,706**	**$ 22,000**	
TOTAL COST (Each Project)	**$ 222,306**	**$ 107,000**	Includes, easement purchase, admin/staff costs, stewardship contribution, and forestry guidance/assistance.
Total Cost of Both Projects:	$329,306		

Lea/Dollard Conservation Easements
Projected Funding Sources

Direct Acquisition Costs - Purchase Price of CE	Amount		
Source	**Lea**	**Dollard**	**Total**
Ozark Regional Land Trust	$35,000	$32,000	$67,000
Reeder Foundation	$5,000	$5,000	$10,000
MDC/Wildlife Diversity Funds	$2,500	$2,500	$5,000
Proposed/requested -- Not yet committed			
Sustainable Forestry Initiative	**$60,000**	**$7,000**	**$67,000**
Ann Perkins	$12,000	$1,500	$13,500
Trulaske Family Foundation	$35,000	$30,000	$65,000
L-A-D Foundation	$5,000		$5,000
The Nature Conservancy	$5,000		$5,000
Missouri Bird Conservation Initiative	$10,000	$5,000	$15,000
Dennis Jones	$20,000		$20,000
Individuals - ORLT members	$1,600	$1,000	$2,600
Total Funding for Easement Purchase	$191,100	$84,000	$275,100
Conservation Practices - Forest Management	Amount		
Source	**Lea**	**Dollard**	**Total**
Missouri Department of Conservation	$1,500	$1,000	$2,500
Indirect Costs – Admin & Stewardship Contribution	Amount		
Source	**Lea**	**Dollard**	**Total**
MO Cons Heritage Foundation-SSTF (pending)	$29,706	$22,000	$51,706
TOTAL FUNDING (to cover all project costs)	**$222,306**	**$107,000**	**$329,306**

Sustainable Forestry Initiative, Inc.
900 17th St. NW, Suite 700
Washington, DC 20006
Attention: Eli Weissman
Senior Director of Conservation Partnerships
Phone: **202-596-3452**
E-mail: Eli.Weissman@sfiprogram.org

Grant Application

Lead Organization Name and Address	Plenty Canada, 266 Plenty Lane, Lanark, Ontario, Canada, K0G 1K0
Name, phone and email for Project Director	Larry McDermott, larry@plentycanada.com, 613-278-2215
Lead Organizational Mission Statement (25 words or less)	Plenty Canada partners with Indigenous peoples and other community groups around the world in support of their environmental protection and sustainable development goals.
Lead Organization Annual Operating Budget	$250,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1. Stephen Hunter RPF, United Counties of Prescott Russell, shunter@prescott-russel.on.ca 2. Jeff Beaver, Southeastern Ontario representative, Ontario Ministry of Natural Resources Aboriginal Natural Resources Management Council, mikwag@eagle.ca 905-352-3164

Project Overview

The project will develop Canadian education tools and outreach initiatives that will deal with a number of SFI standards and indicators but in particular:

Performance Measure 18.2. *Program Participants* with forest *management responsibilities on public lands* shall confer with affected indigenous peoples.

Indicator:
1. *Program* that includes communication with affected indigenous peoples to enable *Program Participants* to:
   a. understand and respect *traditional forest-related knowledge;*
   b. identify and protect spiritually, historically, or *culturally important* sites; and
   c. address the use of non-timber forest products of value to indigenous peoples in areas where *Program Participants* have *management responsibilities on*

public lands.

This project will support initiatives that illustrate, inform, or improve the role of the SFI standard. The majority of these funds will support projects in the following four categories: Working Forests, Water, Capacity Building, and Wildlife and Biodiversity.

The project will demonstrate "non-timber forest products of value to indigenous peoples" by building a traditional birch bark canoe from materials gathered on SFI certified forests in western Quebec. During the harvest of the materials for the traditional canoe other non-timber forest products of importance to indigenous peoples will be shown, along with identification of species at risk, and invasive alien species. Indigenous traditional knowledge will be explained and how it can be applied to protect biodiversity, assist species at risk and prevent and control invasive alien species. This will be captured on video for production of a short (4 minute) introductory video and a more comprehensive video (20 minute) to assist both forest managers and indigenous peoples in achieving healthier working forests, the protection of water, assist with the capacity building of indigenous peoples and improve wildlife habitat and achieve greater biodiversity. The second film will be completed in the second year and will rely on video tapping of workshops including field demonstrations.

The project also intends to take the birch bark canoe, birch bark baskets, video and other materials such as the Aboriginal booklet on invasive species jointly produce by Plenty Canada, South Nation Conservation and other partners, a previously produced Plenty Canada video on traditional knowledge and attend workshops to inform the general public and forest practitioners in Quebec and Ontario as the first steps in a national roll out of education and outreach regarding the potential of effective partnerships that include indigenous peoples in Canada through SFI Performance Measure 18.2.

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
South Nation Conservation	SFI 18.2 – Indigenous Knowledge for Healthy Forest	$12,500 cash $13,700 in kind		The project will produce one of the most important and iconic products known in Canada, the canoe made traditionally by an Algonquin crafts person using materials from an SFI certified forest. The project will produce videos to assist with the national roll out of education on the 18.2 SFI standard.	18.2 including indicators a., b. and c.
Plenty Canada	Same as above	$28,500 cash $23,700 in kind		Same as above	Same as above
Ancient Ways	Same as above	$ 1,250 in kind		Same as above	Same as above

Grape Theory Productions	Same as above	$ 7,500 in kind		Same as above	Same as above
Quebec SFI Implementation Committee	Same as above	$10,000 in kind		Same as above	Same as above

Project Partners

**For each Project Partner, please complete the following table. Each Project Partner must also include a signed copy of the Agreement to Public Communications, which can be found at the end of this document.*

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
South Nation Conservation	Mr. Chris Craig – Senior Forest Technician	CCraig@nation.on.ca, 613-984-2948, P.O. Box 29, 38 Victoria St., Finch, Ontario, K0C 1K0	Mr. Craig is an Algonquin forest manager who has done extensive work with indigenous values in the forest. He coordinates the Eastern Ontario First Nations Working group on which Plenty Canada also sits with other first nations and conservation organizations. He has coordinated projects where indigenous forest values, traditional knowledge, non-timber forest products, indigenous perspectives on species at risk and invasive alien species are shared with both forest managers and the general public including school age children. He has also overseen projects involving aquatic environments and traditional foods from the land. South Nation Conservation has been an exceptional partner with Plenty Canada and others in promoting the sharing of indigenous traditional knowledge and western science for improved outcomes environmentally, economically, socially and culturally. They have developed a forest extension program for private

			and community forests that is delivered in both French and English.
Ancient Ways	Chuck Commanda	613-432-9344	Chuck Commanda is the grandson of now deceased Algonquin Elder William Commanda, Officer of the Order of Canada, and master canoe builder who made canoes for Kings and Queens and whose canoes greet you in the front of the Canadian Canoe Museum in Peterborough Ontario.
Grape Theory Productions	Ryan Johnson	woofer195@gmail.com ,519-445-4133, Grape Theory Productions, C/O The Bear's Inn, 1979 4th Line Road, P.O. Box 187, Six Nations of the Grand River, Ohsweken, Ontario, N0A 1M0.	Grape Theory Productions has produced a video for Plenty Canada that describes our history, values and hopes for the future. The team has extensive experience in various communications mediums. Communications specialist Tim Johnson was senior Editor of Indian Country Today the largest indigenous newspaper in the world and Acting Director of the National Museum of the American Indian.
Quebec SFI Implementation Committee	Mr. Danny Karch	Danny.Karch@sfiprogram.org 450-242-1233	The Quebec SFI Implementation Committee has experience with key SFI certification holders and will serve a key role in the implementation of this project.
Plenty Canada	Larry McDermott	larry@plentycanada.com 613-278-2215	Plenty Canada is an indigenous international NGO which works both in Canada and abroad on sustainable development and environmental projects since 1976

Project Details

The project relies on an exceptional team.

The Project coordinator:

Larry McDermott is an Algonquin from Shabot Obaadjiwan First Nation, he was a member of the Canadian Indigenous delegation to the Earth Summit in 1992 which was a catalyst for the SFI Standard. He has served on the Ontario Ministry of Natural Resources Aboriginal Traditional Knowledge Working Group which advised the Ministry on how to more effectively partner with Aboriginal peoples and share traditional knowledge with western science for improved outcomes. He was the first national Rural Chair for the Federation of Canadian Municipalities (FCM) and developed multi-billion dollar national infrastructure funds. He served as the FCM"s board appointee for five years to the Canadian Sustainable Awards Judge's Panel. He is co-chair of the Biodiversity Caucus of the Canadian Environmental Network, a member of the International Indigenous Forum on Biodiversity, serves on the UNESCO Canada Sectorial Committee for the Sciences that sponsors the LINK program for Traditional Knowledge. He has served on the Ontario Species at Risk Public Advisory Committee and is a member of the Eastern Ontario First Nation Working Group. He is a certified Ontario Tree Marker and owns a 500-acre private forest. He represents Shabot Obaadjiwan First Nation on the Local Citizens Committee for Forest Management Planning. He is Executive Director of Plenty Canada, an organization with experience in Forestry with indigenous peoples in Africa, Central America and Asia along with Canadian projects. In fact Plenty Canada will be planting over 100,000 trees this spring in Eastern Ontario. Plenty Canada hosts the project *Our Traditions Our Future,* which has provided forestry and other information to both indigenous and mainstream communities. He will coordinate Plenty Canada team members who will bring several skills in communication, science based and traditional knowledge with respect to water protection, indigenous capacity building, habitat improvement, species at risk and invasive alien species prevention and control.

The Senior Forest Technician:

Chris Craig is a member of Pikwaganagan First Nation located near Golden Lake Ontario. He coordinates the Eastern Ontario First Nation Working Group. He is a Senior Forest Technician at South Nation Conservation and he will coordinate the involvement of several colleagues who bring science based experience on species at risk, invasive alien species, habitat improvement, water protection and other skills to enhance this projects success. Chris is a skilled educator and has worked extensively with all kinds of audiences including school kids; private and public land owners and First Nations to improve forestry outcomes. He brings a rare ability to assist with the partnering of indigenous traditional knowledge keepers and western science practitioners. South Nation Conservation is a leading conservation authority in Ontario in building policies, partnerships and developing projects to include indigenous traditional knowledge.

The Canoe Builder:

Chuck Commanda is an Algonquin from Kitigan Zibi First Nation near Maniwaki Quebec. He is a graduate archeologist and a master canoe maker. He learned his craft from now deceased Elder William Commanda who was an Officer of the Order of Canada, master canoe builder and founder of the Circle of All Nations. Chuck has had his canoes exhibited throughout North America. Last summer he was featured at the Living Earth Festival sponsored by the Smithsonian National Museum of the American Indian in Washington D.C. Chuck is also skilled at making traditional birch bark baskets and he and his wife Janet will demonstrate this craft on the two video produced during this project.

The Film Makers:

Ryan Johnson is a member of Six Nations on the Grand River First Nation. He has studied visual arts at Mohawk College and has produced excellent productions capturing traditional knowledge and other subjects.

Tim Johnson is a former communications director at Plenty Canada, a former senior editor at *Indian Country Today* the largest indigenous newspaper in the world. He served as acting director at the Smithsonian National Museum of the American Indian along with positions in the communications field. He is a founding director of the first indigenous TV network in the USA. He has received several awards and brings an amazing skill set to this project.

Quebec SFI Implementation Committee:

Danny Karch leads this dynamic committee that will provide critical advise and resources for certified lands and other contacts to enrich the project. The committee will also provide the catalyst for the national roll-out with other Canadian implementation committees.

Project details:

May through September 2013 will include research, script writing, identification of SFI certified forest for bark and root gathering, preparation by the biologist/environmental specialist, forest specialists (including traditional knowledge holders) leading to the video shoot of the gathering of materials for the canoe and baskets. Other NTFP's that are important to the indigenous peoples of the region will be identified as will species at risk and their care, invasive alien species will be identified along with some methods of preventions and control. Water protection and habitat protection and creation will be included in this phase of the project. Approximately 800 Walnut, White and Yellow Birch and Red Oak trees will be planted by indigenous peoples for wild life habitat improvements and to showcase the importance of these species to local indigenous cultures. These plantings will also be captured on video.

After the shoot in late June until the end of the summer the canoe will be built, baskets made, and the 4 to 5 minute video on the Performance Measure SFI 18.2 will be produced for outreach activities.

During the summer and early fall of 2013 two workshops will be conducted on invasive species, species at risk and traditional knowledge for forest managers and the general public.

During the fall and winter of 2013 – 2014 at least two conferences will be attended and the canoe will be shown along with the 4 to 5 minute video which will be aired. The distribution of the Plenty Canada indigenous booklet on invasive alien species and pamphlets will be produced and distributed on the application of SFI Performance Measure 18.2 and other applicable standards. During this time period any additional interviews will be held and video taped with the film crew working on delivering the video in the early summer of 2014.

During the spring of 2014 approximately 1,000 Walnut, White and Yellow Birch and Red Oak trees will be planted by indigenous peoples including school children and the relationship to indigenous traditional knowledge, wildlife habitat, water protection and other SFI environmental standards will be shared.

During the summer and fall of 2014 four additional workshops on species at risk, invasive alien species and traditional knowledge. The comprehensive 20-minute video will be rolled out in a national campaign involving other SFI Implementation committees. Plenty Canada will coordinate with Central Canada, Western and Atlantic indigenous partners while the Quebec SFI Implementation Committee will coordinate activities with other Canadian implementation committees.

During the winter and spring of 2014-2015 at least two conferences will be attended where the canoe, baskets and videos will be shared to assist in the education of forest managers and others about the importance of Performance Measure 18.2 to good forests and the well being of Canadians. At least 4 school classes will be attended where the canoe, baskets, video, pamphlets and other educational materials will be distributed.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Enhance the understanding and respect for Indigenous forest-related traditional knowledge	Build one birch bark canoe to be used in future education efforts. Produce two video showing the canoe development, and traditional knowledge application	Enhance the understanding of the robust application of Performance Measure 18.2 by landowners, the general public and indigenous peoples	Quantify the numbers of forest managers, land owners, member of the general public and indigenous peoples who participate in the education activities	$55,500	$100,400
Goal 2: Explain the intersection with indigenous knowledge and healthy forests, clean water, air, improved biodiversity, and encourage indigenous participation	Host forest related workshops (as part of the video production in the first year) for education purposes regarding indigenous knowledge and goal 2.	Participants will get to see first hand how indigenous knowledge is applied either in the field or by speaking directly with indigenous knowledge carriers	Quantify the numbers of forest managers; land owners, members of the general public and indigenous peoples who participate in workshop activities.	$20,500	$59,250

Project Timeline

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits	2013-4 2014-5	2013-4 2014-5	2013-4 2014-5
Project coordinator	$10,000 - $12,000	$2,000 - $3,000 PC	$2,500 - $2,500 PC
Communications intern		$4,000 - $4,000 PC	$1,500 - $2,000 PC
Biologist/Env. Specialist (3)	$ 2,000	$2,500 - $2,500 PC	$2,000- $2,000SNC
Elders 3	$ 2,000 - $1,500		$3,500 - $1,500 PC
Canoe Builder including materials	$15,000		$3,000 – P.C. & SNC ($1500 each)
Basket making	$ 500		$ 500 - SNC
Film production – equipment rental, script writing, research, editing and travel	$6,000 - $16,000	$1,500 - $1,500 SNC	$4,500- $3,000GTP

Operating Costs			
Research Activities, resources for certified land, project consultation and collaboration for national roll-out			$3,000 - $2,500 PC $3,000 - $2,000 SNC $10,000 - $5,000 QSFI
Meetings and Conferences	$ 500 - $2,000	$1,500 - $1,500 PC $1,000 - $1,000 SNC	$1,200 – $1,500 PC $1,200 - $1,500 SNC
Travel	$1,500 - $3,500	$1,500 – $2,500 PC $1,500 - $2,000 SNC	$1,000 – $1,000 $1,000 - $1,000SNC
Education & Outreach (includes IASP booklets and other information pieces and web site information Trees and instruction	$1,000 - $1,500	$1,000 – $1,500 PC $1,000 – $1,500 SNC $1,000 - $ 500 PC	$2,000 – $2,500 PC $2,000 – $2,500 SNC $1,250 – AW $1,500 - $1,500 PC
Communications	$ 500 - $ 500	$1,500 - $1,500 $1,000 - $1,000 SNC	$2,000 - $2,000 PC $1,500 - $1,500 SNC
Administration - Overhead		$6,000 - $6,000 PC $3,000 - $3,000 SNC	$3,000 - $3,000 $2,000 - $2,000 SNC
Total	**$39,000-$37,000**	**$30,000-$33,000**	**$53,150-$40,500**

*list sources and or in-kind contributions

Note: PC denotes Plenty Conservation, GTP – AW -Ancient Ways, QSFI Committee

amounts of any matching funds <u>for each project partner</u>

Canada, SNC – South Nation Grape Theory Productions, and – Quebec SFI Implementation

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, ___Lawrence McDermott, Executive Director_____ (Name, Title), as a representative of __Plenty Canada_____ (Organization Name) and a Partner in __SFI 18.2 -Indigenous Knowledge for Healthy Forests_____ (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by _Plenty Canada_____ (Organization Name) to sign this agreement.

Signed:

_____
Name

_____
Title

_____
Organization

_____
Date

SFI Inc. Conservation & Community Partnerships Grant Program Request for Proposals
Directions and Grant Application for 2013 Grant Projects

Grant Application

Application Requirements:

- *Proposals must follow this application format.*
- *Applications cannot be longer than 8 pages (Project Partner signed agreements to Public Communications and Lead Organization's current proof of non-profit status do not count towards the 8 page maximum).*
- *You may delete all text that precedes this section and any text in italics throughout the application.*

All applications must include the following items:

Organization Information

The Lead Organization in the Project must be a registered, tax-exempt organization (i.e. A 501(c)(3) in the US or registered with the Charities Directorate of the Canada Revenue Agency in Canada)*. Colleges and universities qualify as tax-exempt organizations. Applicants must submit current proof of tax-exempt status with this application.*

Lead Organization Name and Address	Quality Deer Management Association 170 Whitetail Way P.O. Box 160 Bogart, GA 30622
Name, phone and email for Project Director	Kip Adams 814-326-4023 Kadams@QDMA.com
Lead Organizational Mission Statement (25 words or less)	Ensure the future of white-tailed deer, wildlife habitat and our hunting heritage
Lead Organization Annual Operating Budget	$5,000,000
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Dr. David Guynn Clemson University dguynn@clemson.edu 864-882-0665 Gary Springer

	Milliken Forestry Company springer@millikenforestry.com 803-788-0590

Project Overview

The Project must relate to or support one or more elements of the SFI 2010-2014 Program. You can download a copy of the Standard and supporting documents on our website

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Quality Deer Management Association	Land Certification Program Trainings	$19,500	$39,000	Conduct five Land Certification Program inspector trainings. The QDMA's Land Certification Program recognizes the accomplishments of landowners and sportsmen properly managing their properties throughout North America, as well as those committed to ethics, conservation and biodiversity through land stewardship.	Our proposal will meet Objectives 1,2,3,4,5,6,7,8,10,11,16 and 20 within the Sustainable Forestry Initiative 2010-2014 Standard.

Project Partners

**For each Project Partner, please complete the following table. Each Project Partner must also include a signed copy of the Agreement to Public Communications, which can be found at the end of this document.*

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Quality Deer Management Association (QDMA)	Kip Adams – Director of Education and Outreach	kadams@qdma.com, 814-326-4023, 9652 Route 249, Knoxville, PA 16929	Kip has a B.S. in Wildlife and Fisheries Science from The Pennsylvania State University and an M.S. in Wildlife from the University of New Hampshire. Prior to his employment with QDMA, Kip was a wildlife biologist with the Florida Game and Freshwater Fish Commission and the New Hampshire Fish and Game Department's deer and bear project leader. QDMA is an international, 501(c)3 nonprofit wildlife conservation organization that specializes in education and outreach to hunters, landowners and natural resource professionals.
Resource Management Services	Jimmy Bullock – Sr. Vice President, Forest Sustainability	jbullock@resourcemgt.com, 601-823-5558 x 301, 425-B Highway 51 South, Brookhaven, MS 39601	Prior to joining Resource Management Service, LLC, Jimmy was Manager, Wildlife Policy & Programs, for International Paper. He received his B.S. Degree in Forestry/Wildlife from Mississippi State University in 1980; and attained his M.S. Degree in Wildlife Ecology from that same institution in 1982. Prior to joining International Paper, he was Manager of Wildlife and Sustainable Forestry for Union Camp Corporation in Savannah, GA. Founded in 1950, Resource Management Services is a private timberland investment firm serving pension funds, endowments, foundations and family offices.
Delaware Wild Lands	Andrew Martin – Field Ecologist	amartin@dewildlands.org, 302-853-5244, P.O. Box 395, 224 South Washington Street, Millsboro, DE 19966	Andrew has a B.S. in Biology from Muhlenburg College and an M.S. in Natural Resources from Delaware State University. Delaware Wild Lands, Inc. is a private, non-profit tax-exempt organization dedicated to the conservation and preservation of natural areas through the acquisition and management of strategic parcels of land.
The Westervelt Company	Kevin McKinstry – Recreation Manager	kmckinstry@westervelt.com, 205-562-5408, 1400 Jack	Kevin has a B.S. in Forest Resources and Conservation from the University of Florida, and has over 27 years of professional

		Warner Parkway NE, Tuscaloosa, AL 35404	experience in wildlife management and sporting activities. Prior to the Westervelt Sporting Lodges project he was the manager of the Westervelt Wildlife Services (WWS) group and developed and launched the WWS brand in 2000. Westervelt Wildlife Services is part of The Westervelt Company, formerly known as Gulf States Paper Corporation. Founded by Herbert Westervelt in 1884, The Westervelt Company manages its nearly 500,000 acres of timberland and natural resources through an environmentally responsible, socially aware Highest And Best Use (HBU) approach.

Project Details

Please provide your answers to the following questions to describe your project. You may provide an introductory narrative to your project, but the following questions must be addressed in the requested format.

The vast majority of forests and wildlife habitat in the eastern United States is in private ownership. Private landowners have the opportunity to directly impact forest programs and conservation of all wildlife species, and this is especially important for fish and wildlife species of special interest and those in peril. Therefore, to positively impact resource stewardship we need to impact private lands, and this can be accomplished through the Quality Deer Management Association's (QDMA) Land Certification Program. This initiative provides the knowledge and structure necessary for managing private lands to landowners and private land managers through training courses and certification programs for individuals and properties. This program has tremendous overlap with elements of the SFI 2010-2014 Program including objectives 1-8, 10-11, 16 and 20.

To enhance stewardship on private lands and promote the role of SFI we propose to conduct five Land Certification Program inspector trainings. The QDMA's Land Certification Program was developed to recognize the accomplishments of landowners and sportsmen properly managing their properties throughout North America, as well as those committed to ethics, conservation and biodiversity through land stewardship; and to encourage management practices on participating lands that will enhance wildlife species, habitat conditions, and hunting experiences by providing incentives, recommendations and/or assistance; and finally to inspire others to engage in sound wildlife management and conservation of our natural resources. The program involves the tenets of sound wildlife and habitat management and also includes a commitment to excellence and continued improvement, conservation of biodiversity, aesthetics, special sites identification, and air, water and soil protection.

Importantly, entry in to this program requires an approved forest management plan obtained through the Forest Stewardship Program, American Tree Farm System, Natural Resource Conservation Service (NRCS), private forest/wildlife consultants, and other plans deemed equivalent and approved by QDMA, and the program appeals to thousands of landowners owning millions of acres. Land Certification

Program inspectors meet with interested landowners to assess their property against a set of standards and performance measures. This meeting provides a tremendous opportunity to educate the landowners on SFI standards and additional habitat management techniques, strategies, programs and suggestions. Currently, this program is limited only by the number of qualified inspectors, and this proposal could dramatically assist that limitation.

The Land Certification Program inspector trainings will include a four-hour session by QDMA staff. This proposal would enable QDMA to conduct five training courses. Each training course can accommodate 75-100 people, and QDMA can work with our project partners and well as other SFI partners to select the attendees. The QDMA currently conducts these trainings for a fee of $50-80 per person, but this grant would cover all attendance costs for up to 500 attendees. We could also strategically select training sites to include areas and/or regions where the average property size was larger to accommodate (with a strong encouragement from us) becoming SFI certified and involved with the SFI Forest Partners Program. Finally, we conduct numerous educational events annually to hundreds of landowners where we discuss our Land Certification Program and could therefore promote SFI and this grant throughout the U.S.

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*
2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*
3. *In the table below, please list the goals for your project. For each goal, please describe the actions you will take to achieve your goal, the corresponding tangible outcomes (e.g. implementation guidance on a component of the SFI Standard, outreach and education to landowners, acres positively affected by the Project) for each goal, how you will measure your success in achieving each goal, and the portion of the requested grant funds that would be used to achieve the goal. Add rows as-needed to address all project goals.*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Train Land Certification Program Inspectors	Conduct five Land Certification Program Inspector training courses	Train and certify up to 500 (up to 100 per class) inspectors to approve properties under QDMA's Land Certification Program	We'll measure success by 1)the number of inspectors trained and approved, 2)the number of properties inspected by the trained inspectors, and 3)the number of acres of wildlife and forestry habitat positively impacted by recommendations from these inspectors.	$19,500	$19,500

Project Timeline

Please provide a timeline for completion of the project. Projects may be up to three years in length, and should be for 9 months at a minimum. The timeline should reflect when you will deliver upon the goals and outcomes as outlined above.

We will conduct all training courses within a 12-month period following receipt of a grant.

Project Budget

Please fill out the table below to illustrate the entire Project budget. SFI Inc. will not award any funds for organization overhead costs, which include but are not limited to, office rent or maintenance, utilities, temporary hires, etc. While some portion of the grant may be used to offset staff salary and benefits, the focus should be on on-the-ground activities.

You may modify this table to fit your needs, however please ensure your budget addresses the following components:

1. *Percent of budget allocated to each staff person working on the Project*
2. *Total Operating costs divided up by relevant topics such as travel, meetings, communications, education & outreach etc.*
3. *Identify any in-kind support allocated to this Project by each project partner*
4. *Identify any matching funds allocated to this Project by each project partner*

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Staff Salary and Benefits		$10,000 (QDMA)	
Operating Costs			
Research Activities			
Meetings	$1,500	$1,000 (QDMA)	$500 (Delaware Wild Lands) $500 (Westervelt)
Travel	$2,500		
Education & Outreach	$15,000	$5,000 (QDMA)	$500 (Delaware Wild Lands $500 (Westervelt) $1,000 (Resource Management Services)
Communications	$500	$500 (QDMA)	
Total	**$19,500**	**$16,500**	**$3,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, _Kip Adams, Director of Education & Outreach_, as a representative of _QDMA_ and a Partner in _Land Certification Program trainings__, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by _QDMA_ to sign this agreement.

Signed:

_____

__Director of Education and Outreach__
Title

__QDMA_____
Organization

_14 March 2013_____
Date

March 18, 2013

Eli Weissman
Sustainable Forestry Initiative, Inc.
900 17th St. NW, Suite 700
Washington, DC 20006

Dear Mr. Weissman:

The Seattle office of the Stockholm Environment Institute (SEI) is pleased to present our project proposal to the SFI Inc. Conservation & Community Partnerships Grant Program. Through a historical case study in Eastern Shasta County, California, we propose to evaluate the implications of bioenergy demand on forest management, through the lens of SFI certification. Our project features:

- **a collaborative, multi-disciplinary team** that includes: SEI US, an independent non-profit research institute; CAL FIRE, a state decision making agency and SFI State Implementation Committee Member; SPI, a SFI Program Participant; and TSS Consultants, a local consulting firm. Project partners CAL FIRE and SPI will contribute in-kind project support through staff time, facilitation of contacts with forestland and biopower facility managers, data access and analysis support.
- **analysis that supports the SFI 2010-2014 Standard** and relates to SFI's Carbon and Bioenergy priority funding category. By examining the impact of bioenergy demand and SFI certification on carbon stocks, age structure, and extent of woody biomass removal on forestlands, our project will illustrate, inform, and improve the role of the SFI standard in at least 4 areas: Forest Productivity and Health, Responsible Fiber Sourcing Practices in North America, Legal Compliance and Continual Improvement.
- **high impact research** with potentially broad relevance for the North American bioenergy market. Our research will deepen understanding of the impacts of bioenergy demand on woody biomass utilization and the intensity of forest management, which are often viewed as barriers to new bioenergy projects reliant of woody biomass.
- **development of recommendations for the SFI standard** on management practices related to bioenergy feedstocks. We will compare the conformance of the SFI standard with applicable regulations and best management practices regarding bioenergy feedstock sourcing. Our comparison will be informed by our project partners including CAL FIRE, a forest management regulator and decision maker in California, as well as SPI, a landowner and biopower generator in California that is SFI certified and regulated by CAL FIRE.
- **a communications and outreach plan.** Our team is known for rigorous, quantitative analyses. We also know how to communicate complex results to diverse audiences. Project outputs will include written materials and public presentations aimed at a range of target audiences including regional decision makers, forest landowners and bioenergy facility managers.

We look forward to undertaking the proposed project with the potential support of SFI Inc. Please do not hesitate to contact me if you have any further questions about our submittal at carrie.lee@sei-us.org or (206) 547-4000 x2.

Sincerely,

Carrie Lee, Stockholm Environment Institute, U.S.

A Historical Case Study of Eastern Shasta County, California: A Precedent for Future Bioenergy Markets? A Proposal to the Sustainable Forestry Initiative Inc. Conservation & Community Partnerships Grant Program in response to RFP released February 6, 2013

Submitted by Stockholm Environment Institute U.S., California Dept. of Forestry and Fire Protection (CAL FIRE), TSS Consultants, and Sierra Pacific Industries (SPI)

Organization Information

Lead Organization Name and Address	Stockholm Environment Institute U.S.
Name, phone and email for Project Director	Carrie M. Lee: 206-547-4000 x2 carrie.lee@sei-us.org
Lead Organizational Mission Statement (25 words or less)	SEI US brings about change for sustainable development by bridging science and policy. We do this by conducting integrated analysis to support decision-makers.
Lead Organization Annual Operating Budget	$3.9 Million
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1- Steve Brink, California Forestry Association, steveb@calforests.org, (916) 444-6592 2 -Bruce Goines, US Forest Service Pacific Southwest Region, bgoines@fs.fed.us, (707)-562-8910

Project Overview

Backed by numerous national and global studies, climate and renewable energy experts and advocates have long pointed to biomass energy as offering a potentially significant contribution to long-term, sustainable energy supply. However, in several regions of the U.S., proposals to build new biopower facilities have been met with stiff opposition, with concerns raised regarding local air pollution, habitat loss, and even potential increases in net carbon emissions. Because of the complexity of forest ecosystems and markets for forest products, woody biomass presents unique challenges relative to other energy sources. Uncertainties for woody biomass energy extend to resource availability, the true climate benefit of its use for energy, as well as the ecological and environmental implications of its collection and use. With the potential for expansion of woody biomass energy, there is a growing need for objective analysis to facilitate transparent decision making on the issue.

The implications of harvesting woody biomass for bioenergy on the net carbon balance of forestlands can vary significantly depending on the feedstock type used. For utilization of harvest residues changes in the net carbon balance are largely a function of a potential shift in timing of emissions depending on the baseline residue management practices and of potential changes in soil carbon and site productivity depending on the intensity of residue removal and the site soil fertility. However, the implications of shifting forest management and harvest regimes to divert pulpwood or timber to bioenergy are much less certain. Proponents of bioenergy facilities have claimed that due to cost constraints they will rely only on residues. Facilities claim they would be unable to offer prices high enough to compete with the price of pulpwood or other wood products to expand their feedstock sources to include these materials. However, critics of bioenergy expansion have raised concern that once the facilities are built, if demand for residues and prices paid for feedstock increases, facilities may end up expanding their feedstock sources after-all. This could result in intensification of forest management and biomass utilization with negative impacts on long-term forest productivity, ecosystem services and carbon storage of forest lands.

To shed light on how bioenergy markets may impact forest management in the future, there is a key need to examine how market demand from past and current bioenergy facilities has impacted feedstock types used and management of biomass on forestlands. To examine this issue we propose to conduct a historical case study and analysis of the implications of existing bioenergy markets and SFI certification on forest management.

Our key research questions are:

- What impact has feedstock demand from biopower facilities had on forest residue utilization and forest harvesting? Can this impact be observed through changes in forest land cover over time?
- What biomass feedstocks types have been used by biopower facilities? How have these changed over time? Has the type of feedstock used differed from expectations?
- What role has SFI certification had in management of forest lands that supply biomass to biopower facilities? How do SFI certification requirements compare to state and local regulations regarding bioenergy sourcing?

We propose to focus our case study in Eastern Shasta County, California (See Map Inset). California has more biomass power plants than any other state. Currently there are 28 commercial-scale biopower facilities now operating within the state. California has a long history of biopower production, providing a context for a historical case study, with facilities dating back to the 1980's resulting from the state's renewable energy incentives and implementation of the 1978 Public Utilities Regulatory Policies Act (PURPA) passed by Congress. As well there is anticipation of an emerging bioenergy market stemming from the state's 2002 Renewable Portfolio Standard (RPS) and more recent legislation such as Senate Bill 1122, supporting small scale bioenergy production through feed-in tariff requirements for public utilities. In particular, Shasta County has one of the highest densities of biopower facilities in California, with over 100MW of biopower production currently in commercial service and one of the first stand-alone biopower facilities in the state (Burney Mtn. Power).

This project addresses four SFI Sustainable Forestry Principles: Sustainable Forestry; Forest Productivity and Health; Legal Compliance; Responsible Fiber Sourcing Practices in North America; Continual Improvement. "Bioenergy and carbon" has been identified as an emerging theme in the *SFI 2010-2014 Standard*. The SFI Standard will need to incorporate and account for shifts in forest management practices that result from meeting demand for bioenergy feedstocks. This project addresses the needs of the SFI Standard to incorporate management of bioenergy feedstocks by examining how bioenergy markets and SFI certification has impacted forest management in the past. In particular, this project will further the SFI Sustainable Forestry Principles through: evaluation of the impact of bioenergy markets on residue retention and implications for long-term forest productivity and forest carbon stocks (Objective 2); identification of how landowners have managed residue utilization with consideration to economic, social and environmental factors (Objective 7); outreach to and participation from forestland owners on prior management practices driven by bioenergy markets demand (Objective 8); evaluation of how evolving forest practices laws in the state of California regarding woody biomass utilization may influence forest management practices and compare to SFI requirements and program participant current practices (Objective 14); and participation and in-kind support of SFI Program Participant SPI including providing information and data on their current/past management practices related to residue management and bioenergy feedstock sourcing (Objective 15).

Project Partners

Confirmed Project Partners	Project Title	Amount Requested	Total Project Budget	Relevant SFI 2010-2014 Program
SEI US	A Historical Case Study of Eastern Shasta County, California: A Precedent for Future Bioenergy Markets?	$71,296	$71,296	**Forest Productivity and Health**: Objectives 2 and 7 **Responsible Fiber Sourcing Practices in North America:** Objective 8 **Legal Compliance:** Objective 14 **Continual Improvement:** Objective 15
CAL FIRE		In-kind support	$254,419	
Sierra Pacific Industries		In-kind support	$25,000	
TSS Consultants		$16,000	$16,000	
Brief Project Summary (50 words or less)	Case study and land cover analysis of the implications of bioenergy demand on woody biomass utilization and intensity of management of forestlands in eastern Shasta County, California. Evaluation of the role of SFI certification in forest management decisions and compatibility with state regulations regarding bioenergy utilization.			

Confirmed Project Partners	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)
SEI U.S.	Carrie M. Lee Staff Scientist	Carrie.lee@sei-us.org; 206-547-4000 x2 1402 3rd Ave, Suite 900, Seattle, WA 98101
	The SEI team has played a leading role in greenhouse gas accounting, life cycle air emissions assessment and forest policy efforts. **Carrie Lee** (M.S. in Forest Resources, Univ. of Washington) will serve a project manager for this work. For 8 years, she has conducted research focused on forest and agricultural climate mitigation strategies, bio-energy production and carbon offset protocols. **Michael Lazarus** (M.S. Energy and Resources, UC Berkeley), with over 25 years' experience in energy and climate policy, will play a technical advisory role contributing to methodology development and analysis. **Laura Forni** (M.S. Agricultural and Resource Economics, UC Davis) conducts research on the incorporation of economic valuation methods for water management and land uses. **Pipa Elias** (M.S. in forestry, Virginia Tech) has over 8 years of forestry research experience including GIS mapping of soil fertility, field sampling at long-term forest monitoring sites, and implications of policy for forest management and climate change.	
CAL FIRE	Mark Rosenberg Research Program Specialist	Mark.Rosenberg@fire.ca.gov, 916-445-5366 PO Box 944246 Sacramento, CA 94244-2460
	Mark Rosenberg is a Research Program Specialist with the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP). Since 1977, FRAP's founding legislation has directed it to develop and maintain information systems on forest resource condition and extent in California. FRAP now plays a leadership role for integrating forest inventories into forest and rangeland assessment and monitoring in California. Mr. Rosenberg coordinates the CAL FIRE -	

	USDA Forest Service cooperative vegetation mapping and monitoring program, and has expertise in forest inventory, remote sensing, GIS, habitat modeling and fire behavior.	
Sierra Pacific Industries	Ed Murphy: Resource Inventory Systems, Manager	emurphy@spi-ind.com; 530.378-8131 POB 496014, Redding, CA 96049-6014
	Sierra Pacific Industries (SPI) is a third-generation family-owned forest products company based in Anderson, California. The firm owns and manages nearly 1.9 million acres of timberland in California and Washington, and is the second largest lumber producer in the United States. Sierra Pacific Industries is committed to managing its lands in a responsible and sustainable manner to protect the environment while providing quality wood products and renewable power for consumers. SPI is a certified participant in the independent Sustainable Forestry Initiative to help ensure our forests are here for generations to come. **Ed Murphy** is the company inventory forester; he comes to this project with 35 years of forestry experience in California, and is a Registered Professional Forester (California). Besides his expertise in forest land management, silviculture, and forest inventory, he was a member of the stakeholder work group that developed the Climate Action Reserve's Forest Project Protocol (Ver. 3.2), which was the template for the California Air Resources Board's US Forestry Project Offset Protocol.	
TSS Consultants	Tad Mason CEO	tmason@tssconsultants.com; 916.266.0546 2724 Kilgore Road, Rancho Cordova, CA 95670
	TSS is a consulting group providing renewable energy, natural resources management, environmental compliance, greenhouse gas management, and financial assessment services. Since TSS' establishment in 1986 the firm has provided technological and economic evaluation of new and proposed commercial scale energy projects, biomass resource utilization alternatives, and policy review. As the CEO of TSS Consultants**, Tad Mason** leads a team of professionals well versed in the tasks required to successfully develop bioenergy projects. Mr. Mason has over 30 years of experience in the fields of bioenergy project development, natural resources management, cellulosic fuels/feedstock supply chain development, resource management policy and hazardous forest fuels reduction project implementation. As a Registered Professional Forester (California), he has prepared and implemented fuels treatment, and fire restoration plans. Mr. Mason received his B.S. degree in Forestry from the University of California, Berkeley	

Project Details

Task 1: Market Trends and Forest Land Cover Analysis

A. Collect and analyze data on forest management and biomass utilization for bioenergy in Shasta County through a literature review, surveys, and field interviews with forestland and biopower facility managers. We will develop and administer a survey with managers of forestlands both within and outside of the transport circle (e.g. 50-100 miles) of three biopower facilities in the Burney area of eastern Shasta County (Burney Mtn. Power, Burney Forest Power, and SPI Burney). We will develop and administer a separate survey for biopower facilities. The surveys will help to collect data on tree species mix, stand history, stand response following biomass removal, harvest intervals, management of residues, feedstock volumes provided to (or acquired by) biopower facilities, prevailing market prices and conditions (for competing wood and energy products), and status of SFI certification. Confidential agreements will be used to protect market sensitive data. Field interviews and QA/QC procedures will be used to enhance the completeness and quality of data collection.

SPI, as an SFI Program Participant, project partner, and forestland owner in Shasta County will play a key role in providing SEI access to data on management of their forest lands, as well as facilitating participation from other forestland owners in the county. TSS Consultants has extensive contacts with biopower facilities in California, including Shasta County, and will have a primary role in facilitating their participation in our survey.

B. Conduct temporal Forest Land Cover Analysis of eastern Shasta County and western Lassen County. Using existing Forest Inventory and Analysis (FIA) datasets dating back to the 1990s, timber harvest documentation and state forest vegetation survey maps, SEI and CAL FIRE staff will evaluate whether the impact of a biopower market in Shasta County can be observed in forest land cover changes within and outside the transport circle of biopower facilities. This analysis will benefit from analysis using CAL FIRE's ongoing development of a biomass sustainability model with support funds provided to the U.S. Forest Service.

C. Examine the relationship between removals of woody biomass, market access, biopower market conditions, and other relevant factors (such as distance to facilities) based on literature review and modeling (including land cover and econometric analysis). Assess how these factors have impacted forest management and carbon stocks of forestlands. Final results will be dependent on historical data availability, where necessary published studies from comparable forest types may be used to complement site-specific information.

D. Consider applicability of findings for eastern Shasta county experience to other potential biopower contexts in the region. Discuss findings and applicability with various stakeholders including both forest managers, biopower developers, and representatives of environmental and local community consistencies.

E. Prepare SEI working paper, as precursor to peer-reviewed journal article, and Policy Brief/Fact Sheet to serve as communications to a range of decision makers and stakeholders. SEI will serve as the primary author of final research reports.

Task 2: Evaluation of Conformance of SFI Standard with Biomass Feedstock Sourcing Regulations and Best Management Practices

A. Review applicable state regulation and forest practices rules regarding woody biomass utilization. Gather information on relevant best management practices from literature review, other forest certification standards and field interviews with forestland managers.

B. Develop recommendations for how the SFI Standard can be improved if necessary to incorporate guidance on sourcing feedstocks for bioenergy.

Task 3: Outreach and Communications

A. Communications with regional forestland owners and biopower facilities through networks including the California SFI State Implementation Committee, which both CAL FIRE and SPI are members of.

B. Outreach to relevant California decision makers including CA Air Resources Board, California Energy Commission, and CA Public Utilities Commission and federal decision makers including the USDA Forest Service, Bureau of Land Management and the Natural Resources Conservation Service. Program partners will meet with appropriate policy makers to share our analysis and help them understand how it relates to their current protocol development on forest landscapes and carbon accounting.

C. Public outreach at SFI conference and workshops. Other venues may include the October 2014 Society of American Foresters (SAF) Convention.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Provide analysis of implications of biopower market to address key research gap	Task 1: Market Trends and Forest Land Cover Analysis Task 3: Outreach and Communications	· Findings and recommendations for forestland owners on management of bioenergy feedstocks · Peer-reviewed journal article · SEI Policy Brief/Fact Sheet · Share results at annual SAF convention	· Regional decision makers and landowners cite and refer to project work products	$87,296	CAL FIRE: · $55,500 in-kind staff time and travel funds · $200,000 matching funds from ongoing contract with USFS for biomass sustainability model (to be used in this case study) SPI: · $25,000 in-kind staff time and GIS data support
Goal 2: Inform SFI Standard principles for biomass utilization for bioenergy	Task 2: Evaluation of Conformance of SFI Standard with Biomass Feedstock Sourcing Regulations and Best Management Practices Task 3: Outreach and Communications	· Recommendations if necessary for how to incorporate guidance on biomass utilization in the SFI Standard to conform with state regulatory requirements · Presentations and written materials shared via CAL FIRE's participation on CA SFI State Implementation Committee.	· SFI incorporates as necessary recommended guidance into future SFI Standard		

Project Timeline: May 2013 – Nov 2014

	2013								2014										
Task	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Task 1: Market Trends & Forest Land Cover Analysis									X				X						
Task 2: SFI Standard & State Regulatory Assessment															X				
Task 3: Outreach & Communications																	X		X

X = draft and final work products

Project Budget

		Labor	Task 1	Task 2	Task 3	All Tasks	Total	SFI	Matching	In-Kind
		$/Day	Days	Days	Days	Days	Costs	Grant Budget	Funds	Contributions
Staff Salary and Benefits							**$150,196**	**$72,696**	**$0**	**$77,500**
SEI-US	Carrie Lee	$640	35	8	8	51	$32,640	$32,640		
SEI-US	Michael Lazarus	$1,144	1	1	1	3	$3,432	$3,432		
SEI-US	Laura Forni	$552	10	0	2	12	$6,624	$6,624		
SEI-US	Pipa Elias	$300	30	10	10	50	$15,000	$15,000		
CAL FIRE	Mark Rosenberg (and technical staff)		100	30	20	150	$52,500			$52,500
SPI	Ed Murphy		11	2	2	15	$25,000			$25,000
TSS	Tad Mason	$1,000	13	0	2	15	$15,000	$15,000		
Operating Costs							**$217,100**	**$14,600**	**$200,000**	**$2,500**
Research Activities										
	GIS license						$100	$100		
	CAL FIRE model development w/ support from USFS						$200,000		$200,000	
Meetings and Travel										
	Travel for 3 Meetings/Site-visits						$10,000	$7,500		$2,500
	Meetings w/ landowners/facility managers						$1,500	$1,500		
Outreach and Communications										
	SEI Communication Team Support						$5,000	$5,000		
	Printing Materials						$500	$500		
Total							**$367,296**	**$87,296**	**$200,000**	**$80,000**

Grant Application

Application Requirements:

- *Proposals must follow this application format.*
- *Applications cannot be longer than 8 pages (Project Partner signed agreements to Public Communications and Lead Organization's current proof of non-profit status do not count towards the 8 page maximum).*
- *You may delete all text that precedes this section and any text in italics throughout the application.*

All applications must include the following items:

Organization Information

The Lead Organization in the Project must be a registered, tax-exempt organization (i.e. A 501(c)(3) in the US or registered with the Charities Directorate of the Canada Revenue Agency in Canada)*. Colleges and universities qualify as tax-exempt organizations. Applicants must submit current proof of tax-exempt status with this application.*

Lead Organization Name and Address	Tanzania Environment Management Catalyst (TEMACA) P. O. Box 30436 Kibaha Tanzania Email temacatza@gmail.com
Name, phone and email for Project Director	Rajab Kondo, +255 754 303906, +255 784 517475 Emails temacatza@gmail.com & rajakondo@yahoo.com
Lead Organizational Mission Statement (25 words or less)	To contribute towards poverty reduction through programming, policy analysis and advocacy to achieve sustainable development, conserving nature, protecting environment and efficient use of natural resources.
Lead Organization Annual Operating Budget	US$ 102,900
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1.Ester Kiondo, Chechire Foundation Tanzania Email emkiondo@yahoo.com Tel +255 754 745812 2.Walter Nkamba St Johns University Tanzania Email wankamba@yahoo.com Tel +655 842400

Project Overview

The Project must relate to or support one or more elements of the SFI 2010-2014 Program. You can download a copy of the Standard and supporting documents on our website

Name of project

Promoting Sustainable Environment Management and SFI principles and standards

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the

					Standard Component(s))
1.Mpingo Conservation & Development Initiative PO Box 49 Kilwa Masoko, Tanzania Tel +44 (0)87 0052 7005 Email enquiries@mpingoconservation.org	Mpingo black wood and community-managed forests in southern Tanzania	Nill Have funding	Nill Have funding	Creates the foundations of the African black wood chain of custody by managing an FSC group certificate scheme (SA-FM/COC-002151) for community-managed forests in southern Tanzania – the first of its kind in Africa	1. Creates foundations of African black wood chain of custody by managing FSC group certificate scheme (SA-FM/COC-002151) for community-managed forests in southern Tanzania – the first of its kind in Africa. Village forests that meet the required criteria can become FSC-certified and subsequently sell African blackwood through the chain of custody and benefit from the price premium.
2. Environment and Forest Certification (EFC) Limited P.O Box 33125, Dar es Salaam, Tanzania Tel: + 255 715 893 405 Email: info@efc.co.tz		Nill Have funding	Nill Have funding	EFC Limited is provide most cost-effective, efficient and environmentally friendly solutions to all targeted sectors, contributing effectively to sustainable development goals	2. Environment and Forest Certification (EFC) Limited is a company with a certificate of registration No. 79005. EFC is a consulting company with major focus on provision of environment and forest certification services in Forestry, Mining, Tourism, Construction, Agricultural and Manufacturing/processing sectors.

Project Partners

**For each Project Partner, please complete the following table. Each Project Partner must also include a signed copy of the Agreement to Public Communications, which can be found at the end of this document.*

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
1.Mpingo Conservation & Development Initiative	John Mbonde, Executive Director	Mpingo Conservation and	Mpingo Conservation & Development Initiative (MCDI) creates the foundations of the African blackwood chain of custody by managing an FSC group certificate scheme

		Development Initiative P. O. Box 49 Kilwa Masoko, Tanzania Tel +44 (0)87 0052 7005 Email enquiries@mpingoconservation.org	(SA-FM/COC-002151) for community-managed forests in southern Tanzania – the first of its kind in Africa. Village forests that meet the required criteria can become FSC-certified under the group certificate and subsequently sell African blackwood through the chain of custody and benefit from the price premium. In addition to managing the group certificate, MCDI's works with Tanzanian forest communities spans four key areas
2. Environment and Forest Certification (EFC) Limited	Joachim Mwami Programme Manager	Environment and Forest Certification (EFC) Limited P.O. Box 33125, Dar es Salaam, Tanzania Tel: + 255 715 893 405 Email: info@efc.co.tz	Environment and Forest Certification (EFC) Limited is a company with a certificate of registration No. 79005. EFC is a consulting company with major focus on provision of environment and forest certification services in Forestry, Mining, Tourism, Construction, Agricultural and Manufacturing/processing sectors. The company was established by shareholders from Tanzania. The company is rapidly expanding; collaborating with a wide range of partners in Tanzania and around the world. EFC Limited is committed to providing professionally high quality services; and guarantees to provide most cost-effective, efficient and environmentally friendly solutions to all targeted sectors, contributing effectively to sustainable development goals

Project Details

Name of project

Promoting Sustainable Environment Management and SFI principles and standards

1. *For conservation projects, please explain how your project will illustrate or inform the role of SFI in the requested topic.*

Tanzania is experiencing forest degradation and deforestation. There are policies in place on environment, forestry, wildlife, land, water and wetland. Tanzania has 33.5 ha of forests and woodlands, according to the sector ministry. This is about 38% of the total area. Two thirds of the forest and woodland area consists of woodlands on general lands. About 13 million ha of forest and woodland area have been gazetted as forest reserves. The reserved area includes 1.6 million ha that are managed as catchment forests, and about 80 000 hectares of government owned plantations. The distribution of forest area by type, use and legal status is shown below

In this project will need participation of SFI because work of STI is not well known and there is need to popularize by interacting with the government, public sector, private sector, NGOs, CBOs, companies and community people. We need SFI to share experiences in planning and implementing STI activities at national, district and community levels.

2. *What activities will you and your Project partners perform to promote the outcomes of your Project and SFI Involvement in the Project?*

- Conduct baseline on the situation and status of forestry and forest management in Tanzania
- Review and analyze forestry policy and legislation issues and cross-cutting sectors on sustainable development and forest management, conservation of nature, environment and natural resources
- Conduct mapping on sustainable forest management and country certification
- Compile case studies good practices on projects on national programme on sustainable forest management and utilization including harvesting (legal and illegal)
- Organize national workshop on promoting SFI principles and standards that will involve stakeholders in forestry sector and industry from national, district and community level
- Form national steering to promote and strengthen SFI principles and standards
- Developing national action plan on SFI principle and standards
- Conduct community sensitization meetings and forums on sustainable forestry management and SFI principles and standards
- Conduct district stakeholders workshop on sustainable forest management and SFI principles and standards
- Produce posters on sustainable forestry management and SFI principles and standards

3. *In the table below, please list the goals for your project.*

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds in US$	In-Kind or Matching Funds
Main Goal Increase of stakeholders knowledge on sustainable forestry management, SFI principles and standards	-Review policies and legislations on forestry, environment and natural resource -Organize national workshop on sustainable forest management -Sensitization of	-Report on reviewed policies and legislations produced -Report on national workshop produced -Report on stakeholders	-Report to use for advocacy, engaging government, private sector, CSO, NGOs and communities -Increased knowledge on sustainable forestry	10,000	15,000

	stakeholders on SFI principles and standards -Form national steering committee on SFI principles and standards -Develop national action plan of action on SFI principles and standards	sensitization -Report on formation of steering committee -National action plan document developed	management -Increased awareness on SFI principles and standards -Country driven initiatives on adopting SFI principles and standards		
			Total US$	10,000	15,000
Specific Objectives					
Objective 1 Assess policies and legislations on sustainable forestry management	-Review policies and legislations on forestry, wildlife, water, land, environment and natural resource -Review national programme on sustainable forest management systems	-Report on reviewed policies and legislations produced -Report on national programme on sustainable forest management systems	-Increased knowledge on sustainable forestry management	500	500
Objective 2 Promote mapping on sustainable forest management and country certification	-Conduct mapping on sustainable forest management and country certification -Produce posters on sustainable forestry management and SFI principles and standards	-Report on mapping produced -Posters produced and distributed	-Increased awareness on sustainable forestry management -Increased knowledge on SFI principles and standards	1,500	2,500
Objective 3 Promote and increase knowledge of district stakeholders on mapping sustainable forestry management and SFI principles and standards	-Conduct district stakeholders workshop on mapping sustainable forestry management and SFI principles and standards	-Report on district stakeholders workshop on SFM and SFI	-Increased knowledge and skills on SFM and SFI	3,000	5,000
Objective 4 Promote and increase knowledge of national stakeholders on	-Organize national workshop on sustainable forest management and SFI principles and	-Report on national stakeholders workshop on SFM and SFI	-Increased knowledge and skills on SFM and SFI-Increased knowledge and skills on		

sustainable forestry management and SFI principles and standards	standards -Sensitization of stakeholders on SFI principles and standards -Form national steering committee on SFI	-Report on sensitization of stakeholders on SFM and SFI	SFM and SFI	5,000	7,000
			Total US$	10,000	15,000

Project Timeline

- o Organize national workshop on promoting SFI principles and standards that will involve stakeholders in forestry sector and industry from national, district and community level
- o Form national steering to promote and strengthen SFI principles and standards
- o Developing national action plan on SFI principle and standards
- o Conduct community sensitization meetings and forums on sustainable forestry management and SFI principles and standards
- o Conduct district stakeholders workshop on sustainable forest management and SFI principles and standards
- o Produce posters on sustainable forestry management and SFI principles and standards

No	Activity Description / Months	1	2	3	3	4	5	6	7	8	9	10	11	12
1	Sign contract	x												
2	Review plans and budget and re-planning	x												
3	Introduce project to responsible government ministries, companies, CSOs and selected districts	x												
4	Prepare and produce posters	x	x											
5	Conduct mapping on sustainable forest management		x	x	x	x	x	x	x	x	x	x	x	x
6	Conduct community sensitization meetings		x	x	x	x	x	x	x	x	x	x	x	x
7	Compile case studies and best practices on SFM and certification		x	x	x	x	x	x	x	x	x	x	x	
8	Conduct district stakeholders workshop			x	x	x	x							
9	Conduct national stakeholders workshop							x						
10	Form national steering committee							x						
11	Develop national action plan							x						
12	Fundraising								x	x	x	x	x	x
13	Monitoring			x				x				x		
14	Evaluation												x	
15	Report quarterly			x			x			x			x	
16	Auditing												x	x
17	Report Final													x

Project Budget

You may modify this table to fit your needs, however please ensure your budget addresses the following components:

1. *Percent of budget allocated to each staff person working on the Project*
2. *Total Operating costs divided up by relevant topics such as travel, meetings, communications, education & outreach etc.*
3. *Identify any in-kind support allocated to this Project by each project partner*
4. *Identify any matching funds allocated to this Project by each project partner*

Expenditure	**Amount US$**	**Matching Funds***	**In-Kind Contributions***
1 Staff Salary and Benefits			7,500 100%
Operating Costs			
Research Activities	1,500		500
Meetings	6,500		1,500
Travel	2,000		2,500
Education & Outreach	500		1,000
Communications	500		2,000
Total	**10,000**		**15,000**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

The contributions US$ 15,000 is by applying NGO Tanzania Environment Management Catalyst (TEMACA). I has been a bit long process for other partners to accept to contribute because their managements and boards must meet and approve

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, Rajab Kondo, Program Manager (Name, Title), as a representative of Tanzania Enviroment Management Catalyst (TEMACA) (Organization Name) and a Partner/Partners in (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Tanzania Environment Management Catalyst (TEMACA) (Organization Name) to sign this agreement.

Signed:

_____

Name
Rajab Kondo

_____

Title
Programme Manager

_____

Organization
Tanzania Environment Management Catalyst (TEMACA)

_____

Date 15 March, 2013

SFI Inc. Conservation & Community Partnerships Grant Program Application

Organization Information

Lead Organization Name and Address	The Nature Conservancy – New York 195 New Karner Rd. Suite 200 Albany, NY 12205
Name, phone and email for Project Director	Chris Zimmerman 518-690-7844 czimmerman@tnc.org Lorna Wright 315-387-3600 lorna_wright@tnc.org
Lead Organizational Mission Statement (25 words or less)	The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.
Lead Organization Annual Operating Budget	$17,485,717
Two references (Name, Organization, email and phone)	Robert K. Davies, Director Division of Lands and Forests NYS Department of Environmental Conservation (518) 402-9405 Marilyn Wyman, Team Leader – Natural Resources and the Environment Cornell Cooperative Extension 518-622-9820 ext. 36 mfw10@cornell.edu Jillian Liner, Director of Bird Conservation Audubon NY 607-254-2437 jliner@audubon.org

Project Overview

Confirmed Project Partners	Project Title	Amount Requested	Total Project Budget	Brief Project Summary	SFI 2010-2014 Program Projects Addressed
1. Watershed Agricultural Council 2. Tug Hill Commission 3. Tug Hill Tomorrow 4. Empire State Forest Products Association (NY SFI SIC)	Evaluating forest management incentive programs from the landowner perspective	$71,877	$110,377	This project will assess the drivers, barriers, and effectiveness of forest management outreach and incentive programs in two forested landscapes in New York with high levels of non-industrial private forestlands. We will provide recommendations on how to improve the programs and complete and evaluate a pilot outreach strategy.	*Objective 8.* Landowner Outreach *Objective 9.* Use of Qualified Resource and Qualified Logging Professionals *Objective 10*. Adherence to Best Management Practices

Project Partners

Project Partners	Primary Contact	Complete Contact Information	Brief Summary of Individual and Organizations Qualifications
The Nature Conservancy, New York State	See above	See above	TNC has made substantial contributions to forest conservation in NYS and throughout the U.S. over its 60-year history. TNC's NYS Forest Team has most recently completed a report on the status of forest regeneration in NYS and a statewide assessment of NYS private forest landowner tax relief program. Lorna Wright has a M.F. from Duke University and is the Tug Hill Project Director where she manages >15,000 acres. Chris Zimmerman has a M.S. from Wright State University, worked for USFS for 8 years, and has been working in the Catskills for over 10 years.
Watershed Agricultural Council (WAC)	Tom Pavlesich, WAC Forestry Program Manager	Tpavlesich@nycwatershed.org (607) 865-7790 Ext 113 33195 State Highway 10 Walton NY, 13856	The Watershed Agricultural Council is a not-for-profit organization that works with farm and forest landowners to protect water quality in the New York City watershed. Forest cover constitutes over 75% of the 2,000-square-mile watershed landscape, which delivers roughly 1.3 billion gallons of drinking water to New York City daily. The WAC Forestry Program seeks to

			protect water quality by working with loggers, landowners, and foresters. Over the past 15 years, the WAC Forestry Program has funded the creation of more than 1,000 forest management plans covering more than 150,000 acres of watershed forestland.
Tug Hill Tomorrow Land Trust	Linda Garrett, Executive Director	thtomorr@northnet.org (315) 779-8240 P.O. Box 6063 Watertown, NY 13601	Tug Hill Tomorrow Land Trust is a nationally accredited not-for-profit organization that works with private landowners and community leaders to protect working farms and forests of the Tug Hill region for the benefit of present and future generations. In addition to protecting land through conservation easements, the Land Trust has an education and outreach program that engages the larger community in conservation issues.
Tug Hill Commission	Katie Malinowski, Associate Director of Natural Resources	katie@tughill.org (315) 785-2380 Dulles State Office Building 317 Washington Street Watertown, NY 13601	The Tug Hill Commission is a New York State agency that assists the local governments and citizens of Tug Hill to plan for the future of their communities, which are largely dependent on working lands. Commission staff provide technical assistance, planning resources, and training for managing the forests, agricultural lands, streams and wetlands in support of the environment and the economy.
Empire State Forest Products Association (NY SFI SIC)	Eric Carlson, President and CEO	ECarlson@esfpa.org 518-463-1297 47 Van Alstyne Drive Rensselaer, NY 12144	Since 1906, Empire State Forest Products Association (ESFPA) has been the forest products industry's source for information and public affairs in New York State. ESFPA is a non-profit organization for businesses and individuals and is dedicated to improving the business climate for the forest products industry while promoting management of New York's Forests to meet the resource needs of today and for future generations.

Introductory Narrative

In the northern U.S. more than 55% of forestlands are in family ownership. There are a number of organizations working to improve forest management on these lands through outreach, but current programs only reach a limited audience (Butler 2008). Forest management plans are a primary tool used to promote sound practices, through programs such as financial subsidies, certification, and tax relief programs. Awareness and interest in these programs is limited, for example a recent assessment by The Nature Conservancy found that < 25% of eligible landowners were enrolled in NYS's tax relief program. In addition, a recent study in the Catskills found only a small difference in the implementation of best management practice (BMPs) for water quality between properties with and without plans (VanBrakle et al. 2013). These results, coupled with a growing body of literature (Van Fleet et al. 2012), suggests that outreach methods and incentive programs for family forest owners need to be revised.

We will work in the Catskills and Tug Hill Plateau to identify and implement effective and feasible outreach strategies to improve the implementation of BMPs and sustainable forest management. These forested landscapes filter drinking water for tens of millions of people and support timber-based economies. They have different management histories and ownership patterns but face similar challenges. To achieve the overall goal of improved private forest management through outreach and incentive programs, we will use the National Woodland Owner Survey combined with focus group interviews targeting under-represented landowners, community leaders, and foresters to develop a conceptual model of the drivers and constraints on family forest landowner management decisions, and identify indicators for potential enrollment in SFI and other incentive programs, such as American Tree Farm. We will characterize the public and private benefits and burdens of these programs, and assess implementation of BMPs and sustainable practices on timber harvests conducted in the past five years in Tug Hill under each program, building on research recently conducted in the Catskills (VanBrakle et al. 2013). We will use this information to recommend improvements in the communication, implementation, and effectiveness of private forest landowner incentive programs in NY. Finally, a pilot program will be completed and then evaluated to measure the effectiveness of a revised outreach strategy.

Informing the Role of SFI

This project will provide information to SFI regarding the effectiveness of existing outreach on management practices to private landowners. We will assess the costs and benefits of SFI enrollment, both to individual landowners and the community, and compare the program to other existing incentive programs, such as 480a. Final recommendations could be used by SFI to reduce barriers to enrollment and increase participation by small private landowners.

Promoting the Project Outcomes

We will distribute and promote the final report and recommendations to non-profit and state agency partners throughout NY and the northeast, and host a roundtable discussion on forest management incentive programs. We will present results through presentations at professional meetings and pursue publication in an academic journal. We will incorporate lessons learned into forest landowner outreach efforts within the focal landscapes.

Project Goals

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Identify the drivers for private forest owner management decisions in Tug Hill and the Catskills.	a. Conduct focus group interviews of landowners, community leaders, and foresters to identify major drivers of behavior. b. Use National Woodland Owner Survey data to characterize landowners in the focus landscapes and identify *Prime Prospects* (SFFI, 2013).	a. Conceptual model of forest landowner decision-making b. List of indicators for potential enrollment	Report on findings approved by advisory group (consisting of project partners and other agencies and organizations to be determined)	$7,234 (Staff: $5,634)	$8,500
Goal 2: Determine the use and effectiveness of forest land owner incentive and outreach programs in Tug Hill and the Catskills.	a. Conduct interviews with primary outreach programs in each of the focal landscapes and statewide	a. Survey results	Report on findings approved by advisory group	$5,260 (Staff: $5,010)	$0
Goal 3: Summarize public and private benefits and burdens resulting from SFI enrollment, NYS's private forest landowner taxation program (480-a), and compare to other programs.	a. Analyze public and private return on investment using literature review, state tax rolls, and timber sales data. b. On Tug Hill, conduct field	a. Economic cost/benefit analysis b. Comparative analysis of field assessments	Report on findings approved by advisory group	$47,629 (Staff: $19,629)	$5,000

	assessment of timber harvests under each program to assess implementation of BMPs and sustainable harvest of practices. (See VanBrakle et al. 2013 for methods).				
Goal 4: Develop recommendations to improve utilization of SFI and other incentive programs by family forest owners.	a. Use results of preceding assessments to evaluate potential for programs to improve management, identify improvements that would increase use and effectiveness.	a. Program managers are aware of ways that programs could be improved.	Findings presented to agencies and organizations.	$5,035 (Staff: $4,485)	$1,500
Goal 5: Implement and measure the effectiveness of a pilot outreach program to landowners in Tug Hill and the Catskills.	a. Develop outreach strategy informed by previous assessments b. Develop outreach materials c. Apply predictive model to identify target audience using GIS d. Conduct outreach and assess effectiveness	a. Increased awareness of programs and intention to change practices by private landowners	a. 20% of target audience receives materials b. Evaluations indicate improved awareness of programs	$6,719 (Staff: $6,719)	$23,500

Project Budget

Expenditure	Amount	Matching Funds	In-Kind Contributions
Staff Salary and Benefits Chris Zimmerman 45% Lorna Wright 38% Rebecca Shirer 12% Mark King 5%	$41,477		$23,000 (WAC Funding Source: USFS) $7,500 (THC, Funding Source: NYS State) $3,000 (THTLT, Funding Source: Private)
Operating Costs			
Research Activities	$22,000		
Meetings	$700		
Travel	$6,950		
Education & Outreach		$5,000 (WAC, Funding Source: USFS)	
Communications	$750		
Total	**$71,877**	**$5,000**	**$33,500**

Project Timeline

	2013		2014				2015	
	July-Sept	Oct-Dec	Jan-Mar	Apr-Jun	July-Sept	Oct-Dec	Jan-Mar	Apr-Jun
Goal 1: Landowner assessment								
Goal 2: Outreach assessment								
Goal 3a: Literature review								
Goal 3b: Field data collection and analysis								
Goal 4: Recommendations								
Goal 5: Pilot outreach								

Conclusion

Private forest lands in the Catskills and Tug Hill provide numerous benefits and vital ecosystem services (e.g. water, timber, wildlife). The independent decisions that family forest landowners make in regards to the management and future of their woodlots will cumulatively affect ecosystem services and timber resources. Outreach efforts to date have had limited success in increasing the implementation of sustainable practices (Butler 2008, VanBrakle et al. 2013). We believe that a comprehensive evaluation of current outreach efforts and better understanding of private landowners in these two focal landscapes will lead to the development of a more successful targeted outreach strategy. The results of this work will have regional application to agencies and organizations engaged in forest conservation.

Literature Cited

Butler, B.J. 2008. Family forest owners of the United States. 2006. US For. Serv. Gen. Tech. Rep. NRS-27, North. Res. Stn. Newtown Square, PA.

SFFI. 2013. Tools for Engaging Landowners Effectively: Prime Prospect Analysis. http://www.engaginglandowners.org/new-landowner-research/-prime-prospect-analysis. Accessed March 18, 2013.

VanBrakle, J.D., R.H. Germain, J.F. Munsell and S.V. Stehman. 2013. Do forest management plans increase best management practices implementation on family forest? A formative evaluation in the New York City Watershed. J. For. *In Press*.

VanFleet, T.E., D.B. Kittredge, B.J. Butler and P.F. Catanzaro. 2012. Reimagining family forest conservation: Estimating landowner awareness and their preparedness to act with the conservation awareness index. J. For. 110(4):207-215

SFI Inc. Conservation & Community Partnerships Grant Program Request for Proposals
2013 Grant Application

Knowledge Sharing on Benefits of SFI Forest Certification to North American Aboriginal Communities

Organization Information

The Lead Organization in the Project must be a registered, tax-exempt organization (i.e. A 501(c)(3) in the US or registered with the Charities Directorate of the Canada Revenue Agency in Canada)*. Colleges and universities qualify as tax-exempt organizations. Applicants must submit current proof of tax-exempt status with this application.*

Lead Organization Name and Address	University of British Columbia, Faculty of Forestry 2424 Main Mall, Vancouver, BC, V6T 1Z4 Charitable Number: 52-1559117 (http://www.ors.ubc.ca/contents/ubc-identification-numbers)
Name, phone and email for Project Director	Anna Tikina, 604-805-4284; anna.tikina@ubc.ca
Lead Organizational Mission Statement (25 words or less)	Creating "an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research".
Lead Organization Annual Operating Budget	~$900 M http://bog2.sites.olt.ubc.ca/files/2012/03/3.4_2012.04_Operating-Budget.pdf
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1. John Innes, UBC Faculty of Forestry, john.innes@ubc.ca; 604-822-6761 2. Kathryn (Katie) Fernholz, Dovetail Partners, katie@dovetailinc.org; 612-333-0430

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
1. UBC 2. Stuwix Resources	Knowledge sharing on benefits of SFI forest certification to North American Aboriginal communities	$35,820	$43,708	The project aims at developing a knowledge sharing mechanism (publication, video clip) that provides information on how forest certification can help Aboriginal communities – both Aboriginal forest companies seeking certification and Aboriginal groups wishing to enhance communication with SFI-certified Program Participants.	Objective 17: Community involvement in the practice of sustainable forestry. Objective 18: Public Land Management Responsibilities

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
University of British Columbia, Faculty of Forestry	Anna Tikina, Adjunct Professor	Anna.tikina@ubc.ca 604-805-4284; 2223-2424 Main Mall, Vancouver, BC, V6T 1Z4 Canada	University of British Columbia is a leading education and research institution, while its Faculty of Forestry has a number of research areas recognized as being of world class standard. The in-kind support of the UBC First Nations Council of Advisors (FNCOA) that provides direction to the Faculty First Nations Initiative, will help in engaging Aboriginal communities and pre-testing the publications for improved knowledge sharing. Anna Tikina is a Research Associate at the UBC Faculty of Forestry who carried out successful projects on forest certification, forest policy and international forestry. Anna's research projects include studying the effects of forest certification in Canada, investigating the conditions that predispose Aboriginal forest management operations to seek forest certification, and reviewing Aboriginal tenure arrangements in U.S. and Canada. She has developed a strong interest in improving forest governance and livelihoods of forest-related communities, as well as in strategies of balancing forest values and uses.
Stuwix Resources	Lennard Joe, General Manager	lennardj@stuwix.com 250-378-2277, 2-98 Hwy 8 Merritt, BC V1K 0A7, Canada	Beginning in 2005, Stuwix Resources is a First Nations forest company in market logging, and forest management; owned and operated by eight First Nations Bands in the Nlaka'pamux and Syilx territories. The company was named in honor of its ancestors – the Stuwix people who lived in this region hundreds of years ago. Stuwix is helping to plan forest strategies that are sensitive to First Nations traditions and values and strives to accomplish full fiber utilization in timber development and harvesting practices. Stuwix is the only First Nations company in the British Columbia Interior to hold a replaceable forest licence, and the 112,000 hectares/277,000 acres it manages are independently certified to the SFI 2010-2014 Standard. In 2010, Stuwix won Joint Venture of Year at the BC Aboriginal Business Awards. Lennard Joe is the General Manager of Stuwix Resources who leads its forestry programs.

Project Details

Please provide your answers to the following questions to describe your project.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Assess the best way to share knowledge with Aboriginal communities	UBC reviews relevant literature (SFI standard requirements, best methods of communication, trends in Aboriginal learning); Stuwix and FNCOA provide knowledge on the subject and recommend possible experts to be interviewed UBC conducts expert interviews on the best ways to communicate with Aboriginal communities	Identified best methods to share knowledge with Aboriginal communities Literature review	Useful and publishable information	$4,720.00	$1,275.00
Goal 2: Develop publications aimed at transferring the knowledge on the potential benefits of SFI to Aboriginal communities	UBC develops publications. Possible methods of knowledge sharing include a brief note, flyer, guidebook, and video clip.	Draft publications in the form(-s) recommended by the experts and identified through the literature review and ready for pre-testing	Publications ready for pre-testing at the UBC FNCOA meeting	$7,700.00	$1,433.00
Goal 3: Obtain feedback on the publications from Aboriginal communities and update	UBC pre-tests the publications with FNCOA, obtains its feedback and updates the publications according to the FNCOA suggestions	Feedback on the publications from FNCOA and Aboriginal communities Updated versions of the publications ready for the	Publications positively perceived by the communities Final versions of the publications	$15,200.00	$3,388.00

publications based on the comments	Stuwix outreaches for Aboriginal communities in order to test the publications UBC obtains feedback on the publications from the communities	distribution to wide audiences	ready		
Goal 4: Make the publications publicly available through presentations at conferences and other venues identified by SFI and Partners, and on-line posting.	UBC and Stuwix disseminate the publications to a wide range of audiences through, for example, SFI webpage, other webpages, SFI Conference, and social media.	Knowledge sharing on the benefits of SFI certification to Aboriginal communities	Greater awareness of Aboriginal communities of the benefits of SFI certification to their well-being Improved attractiveness of SFI certification to Aboriginal forest companies	$8,200.00	$1,792.00

Project Timeline

Please provide a timeline for completion of the project. Projects may be up to three years in length, and should be for 9 months at a minimum. The timeline should reflect when you will deliver upon the goals and outcomes as outlined above.

Activity	2013 May - July	2013 Aug - Oct	2013-14 Nov - Jan	2014 Feb - Apr	2014 May – Sept
Literature review	X	X			
Conducting expert interviews on the best ways to share knowledge with Aboriginal communities	X	X			
Developing and maintaining social media presence (Facebook, Twitter) on the objectives and results of the project	X	X	X	X	X
Developing publications on the potential benefits of SFI to Aboriginal communities		X	X		
Intermediate reporting to SFI		X		X	
Pre-testing the publications at FNCOA meeting			X		
Incorporating FNCOA feedback			X		
Outreaching 3-5 Aboriginal communities for testing the publications			X	X	
Obtaining feedback on the publications from the Aboriginal communities			X	X	
Dissemination of the results to a wide range of audiences (presenting at the SFI conference, on-line uploading)					X
Final report					X

Project Budget

Please fill out the table below to illustrate the entire Project budget. SFI Inc. will not award any funds for organization overhead costs, which include but are not limited to, office rent or maintenance, utilities, temporary hires, etc. While some portion of the grant may be used to offset staff salary and benefits, the focus should be on on-the-ground activities.

UBC

Expenditure	Amount	Matching Funds*	In-Kind Contributions*
Staff Salary and Benefits	$13,950.00		
Operating Costs			
Research Activities	$4,400.00		$2,708.00
Meetings	$1,080.00		
Travel	$5,700.00		
Education & Outreach	$2,250.00		$2,575.00
Communications	$3,700.00		$1,725.00
Total	**$31,080.00**		**$7,008.00**

Stuwix

Expenditure	Amount	Matching Funds*	In-Kind Contributions*
Staff Salary and Benefits			
Operating Costs			
Research Activities	$200.00		
Meetings	$40.00		$600.00
Travel	$1,500.00		
Education & Outreach	$2,800.00		$280.00
Communications	$200.00		
Total	**$4,740.00**		**$880.00**

*list sources and amounts of any matching funds or in-kind contributions for each project partner

Bureau of Business and Economic Research
University of Montana
Gallagher Business Building
Missoula, MT 59812
February 11, 2013

Eli Weissman
Sustainable Forest Initiative, Inc.
900 17th St. NW, Suite 700
Washington, DC 20006

Re: SFI Competitive Grant Funding; Proposed "Forest Regeneration Tools for Appalachian Landowners"

Dear Mr. Weissman,

Along with my partners, Dr. Tom Fox and Mr. Jerre Creighton, I am applying to SFI's 2013 Conservation Grant RFP. I have attached the SFI template and supporting documentation. We offer unique and outstanding benefits to SFI with our proposed work:

- We propose to test the function of REGEN, widely seen by scientists and land managers as the most effective regeneration prediction model in the southern Appalachians. We suggest that reforestation and by extension tree composition and forest structure are THE most critical forest landowner information needs. Our work clearly supports the objectives, elements and standards of SFI.
- We propose to calibrate and support the function of REGEN in the Forest Vegetation Simulator (FVS), a flexible and widely used growth and yield model designed to be used by land owners, foresters, and consultants. FVS provides an easy to use platform that is supported by a full time management staff- no other growth and yield modeling system can boast of this.
- We offer substantial in-kind contributions; we will effectively perform the work outlined in our proposal at a small fraction of true cost.
- We propose to publish our results in peer reviewed journals then summarize our work in a synthetic, manager-friendly technology transfer document designed to help land owners predict forest regeneration after cuttings and natural disturbances.
- We would hold one or more workshops for land owners to enable them to effectively predict forest regeneration.
- Our research team represents many decades of practical and scientific forestry knowledge. Both Virginia Tech and the Virginia Dept. of Forestry are SFI Program Participant and SFI Implementation Committee members.

Thank you for the opportunity to apply to this funding opportunity.

Sincerely,

/s/ Erik C. Berg, Ph.D., C.F.

Enclosures

Lead Organization Name and Address	Virginia Tech University 118 N. Main St. (0337) Blacksburg, VA 24061
Name, phone and email for Project Director	Dr. Thomas Fox (540) 231-8862 trfox@vt.edu
Lead Organizational Mission Statement (25 words or less)	Virginia Polytechnic Institute and State University (Virginia Tech) is a public land-grant university serving the Commonwealth of Virginia, the nation, and the world community. The discovery and dissemination of new knowledge are central to its mission. Through its focus on teaching and learning, research and discovery, and outreach and engagement, the university creates, conveys, and applies knowledge to expand personal growth and opportunity, advance social and community development, foster economic competitiveness, and improve the quality of life. (2001 Mission Statement adapted in 2006, by the Board of Visitors)
Lead Organization Annual Operating Budget	$1.2 billion
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Susan Fox, Assistant Director, Southern Research Station, USDA Forest Service Southern Research Station 200 WT Weaver Blvd. Asheville, NC 28804 828-257-4309 sfox@fs.fed.us Michael Van Dyck Forest Management Service Center USDA Forest Service 2150A Centre Avenue Fort Collins, CO 80526 Voice: 970-295-5774 Fax: 970-295-5755 E-mail: mvandyck@fs.fed.us

Project Overview

The Project must relate to or support one or more elements of the SFI 2010-2014 Program. You can download a copy of the Standard and supporting documents on our website.

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))
Virginia Tech University Virginia Department of Forestry	Forest Regeneration Tools for Appalachian Landowners (previously referred to as "Forest Understory Responses to Disturbances in the Southern Appalachians")	$80,000	$131,000	Lack of knowledge about regeneration outcomes after forest disturbance remains one of the most critical problems facing Appalachian landowners. We propose to create tools that will enable forest landowners to accurately predict the suite of regeneration species that will successfully grow to maturity after forest cuttings and natural disturbances.	1. Sustainable Forestry 2. Forest Productivity 10. Research Objective 1. Forest Management Planning Objective 7. Efficient Use of Forest Resources Objective 8. Landowner Outreach Objective 15. Forestry Research, Science, and Technology Specifically…A forest inventory system and a method to calculate growth and yield (Please see attached verbiage in appendix A)

Project Partners

**For each Project Partner, please complete the following table. Each Project Partner must also include a signed copy of the Agreement to Public Communications, which can be found at the end of this document.*

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Virginia Tech University	Dr. Tom Fox; Professor of Forest Soils and Silviculture Dr. Erik Berg (POC; Research Forester)	Dr. Fox Forest Res & Environ Cons (0324) 228 Cheatham Hall Blacksburg, VA 24061 (540) 231-8862 trfox@vt.edu Dr. Berg erik.berg@business.umt.edu 540-525-4996	Dr. Tom Fox's distinguished academic accomplishments build on a long and productive industrial research career in soils and silviculture. He has focused his science interests on the integration of forest soils, hydrology and silviculture. He is particularly well known for his stellar accomplishments in southern pine ecology and management. Dr. Fox has directed the research activities of more than 30 graduate students. Dr. Erik Berg, currently a research forester with the University of Montana's Bureau of Business and Economic Research, would work under Dr. Fox's direction as a Virginia Tech researcher if this proposed project is funded. Dr. Berg designed and installed all of the empirical field based investigations included in this proposal in the 1990s when he served as a forester at the Bent Creek Experimental Forest. Erik's 20 years of forest management and silviculture experience provide a practical "in the trenches" background for his 18 years invested in forest ecology research and research management.

Virginia Department of Forestry	Mr. Jerre Creighton Research Forester	900 Natural Resources Dr., Charlottesville, VA 22903 (434)-820-9119 jerre.creighton@dof.virginia.gov	In a twenty-five-year career, Jerre Creighton has conducted silviculture research and been responsible for the operational application of results on a scale spanning the continental United States from Maine to Florida, Minnesota to Texas, and in the Pacific Northwest. While the bulk of his activity has pertained to the reforestation and productivity of conifers, a significant proportion of his time in West Virginia and Virginia has been spent on hardwood regeneration. He currently manages a research program including over 40 active studies throughout Virginia, and each year he speaks to hundreds of stakeholders at a variety of workshops and meetings. His blend of research and operational experience give him a unique practical perspective. The Virginia Department of Forestry protects and develops healthy, sustainable forest resources for Virginians. Since the early 1950's, the Department has supported an Applied Research program that conducts structured research in the areas of pine and hardwood silviculture, tree improvement, growth and yield, and diminished species restoration. One of the most prominent recent initiatives has been the protection and promotion for healthy hardwood forests.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:Test function of REGEN prediction model	- Complete regeneration field inventories. - Analyze data. - Publish results.	- Regeneration source rankings are tested and revised as needed.	- Refereed journal manuscripts are completed- ready for submission to a journal.	$50,000: Dr. Berg's salary; includes all data analysis and manuscript writing.	$10,000: Dr. Berg's travel expenses are contributed. $20,000: Field data collection normally performed by technicians will be performed by Dr. Berg at no cost to the project. $10,000: Dr. Fox contributes his oversight of all project activities and co-authorship of all manuscripts. $5,000: Mr. Creighton contributes his time to consult and co-author all manuscripts.
Goal 2:Ensure FVS model accurately incorporates REGEN model in model outcomes	- Program FVS to incorporate regeneration outcomes. - Test FVS regeneration predictions.	- REGEN model predictions are incorporated in FVS	- REGEN predictions are fully functional within FVS modeling platform.	$20,000: Dr. Berg's salary; includes all data analysis and data preparation for use in FVS.	$10,000: US Forest Service staff contribute time to oversee model development.
Goal 3: Transfer information on FVS and REGEN models utilities to landowners	- Hold workshop(s) to instruct landowners on use of FVS to predict forest regeneration. - Complete manager-friendly synthetic report on use of REGEN model with FVS.	- Forest landowners learn how to use REGEN and FVS.	- Landowners gain understanding of regeneration outcomes after disturbance in forest stands.	$10,000: most funds needed for logistics, e.g. meeting room and ancillary costs.	$5,000: Mr. Creighton contributes his time and expertise to assist with landowner workshop(s). $10,000: US Forest Service contributes staff time and travel to assist with workshop(s). $20,000: US Forest Service contributes editing expertise and all synthetic document preparation and printing costs.

Project Timeline

Please provide a timeline for completion of the project. Projects may be up to three years in length, and should be for 9 months at a minimum. The timeline should reflect when you will deliver upon the goals and outcomes as outlined above.

Project Goals	Activities	Time frame and completion	Tangible Outcomes	Time frame and completion
Goal 1:Test function of REGEN prediction model	- Complete regeneration field inventories. - Analyze data. - Publish results.	- Field work takes place July to October 2013. - Data analyzed November 2013 to July 2014. - Draft manuscripts written August 2014 to July 2015.	- Regeneration source rankings are tested and revised as needed.	- All manuscripts completed (including contributions by co-authors, editing) and ready to submit to journals by December 2015.
Goal 2:Ensure FVS model accurately incorporates REGEN model in model outcomes	- Program FVS to incorporate regeneration outcomes. - Test FVS regeneration predictions.	- Work on bringing REGEN into FVS August 2014 to May 2015. - Accuracy testing May 2015 to November 2015.	- REGEN model predictions are incorporated in FVS	- Final work on FVS completed by December 2015.
Goal 3: Transfer information on FVS and REGEN model utilities to landowners	- Hold workshop(s) to instruct landowners on use of FVS to predict forest regeneration. - Complete manager-friendly synthetic report on use of REGEN model with FVS.	- Workshop(s) held March to June 2016. - Draft synthetic document complete by June 2016.	- Forest landowners learn how to use REGEN and FVS.	- Workshop(s) complete and follow up contacts to answer landowner questions by June 2016.

Project Budget

Please fill out the table below to illustrate the entire Project budget. SFI Inc. will not award any funds for organization overhead costs, which include but are not limited to, office rent or maintenance, utilities, temporary hires, etc. While some portion of the grant may be used to offset staff salary and benefits, the focus should be on on-the-ground activities.

You may modify this table to fit your needs, however please ensure your budget addresses the following components:

1. *Percent of budget allocated to each staff person working on the Project*
2. *Total Operating costs divided up by relevant topics such as travel, meetings, communications, education & outreach etc.*

3. *Identify any in-kind support allocated to this Project by <u>each</u> project partner*
4. *Identify any matching funds allocated to this Project by <u>each</u> project partner*

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions Virginia Tech**	**In-Kind Contributions Virginia Dept. of Forestry**
Staff Salary and Benefits	$70,000 (Berg)		$10,000 (Fox)	$5,000 (Creighton)
Operating Costs				
Research Activities			$20,000 (field data collection by Berg)	
Meetings				
Travel			$10,000 (Berg travel)	$1,000
Education & Outreach	$10,000 (logistics)			$5,000 (Creighton)
Communications				
Total	**$80,000**		**$40,000**	**$11,000**

*list sources and amounts of any matching funds or in-kind contributions <u>for each project partner</u>

In addition to the above in-kind contributions, the US Forest Service Forest Management Staff (FVS experts) will contribute approximately $10,000 in staff time to oversee Dr. Berg's efforts in calibrating the REGEN model's function in the Forest Vegetation Simulator. The Forest Service will likely also support the production of the synthetic document through publication of a FS-GTR type manuscript.

Agreement to Public Communications

As part of the Grant Application, the Lead Organization must complete and sign this page. All identified organizations and partners involved in the Project must also agree to authorize SFI Inc. to publicize the Project and to use their names, images, logos and information about the Project in such publicity. All Organizations listed in the application will be required to sign an agreement to this effect and submit it with the application. If additional Organizations join the Project after an application is accepted by SFI Inc., they will also be required to sign the agreement. You can access an additional copy of this agreement for your Project Partners here:

Agreement to Public Communications.doc

I, Thomas Fox (Name, Title), as a representative of Virginia Tech (Organization Name) and a Partner in _____ (Name of Project), hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Virginia Tech (Organization Name) to sign this agreement.

Signed: Thomas R Fox

Thomas R Fox
Name

Professor
Title

Virginia Tech
Organization

March 15, 2013
Date

SUSTAINABLE FORESTRY INITIATIVE

Good for you. Good for our forests.℠

SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Jerre Creighton, Research Program Manager, as a representative of the Virginia Department of Forestry and a Partner in the SFI Inc. Conservation & Community Partnerships Grant Program Proposal "Forest Understory Responses to Disturbance in the Southern Appalachians", hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by the Virginia Department of Forestry to sign this agreement.

Signed:

Name

Jerre L. Creighton

Title

Research Program Manager

Organization

Virginia Department of Forestry

Date

March 18, 2013

Appendix A. SFI Proposal Background- "Forest Regeneration Tools for Appalachian Landowners".

March 2013.

Lack of knowledge about regeneration outcomes after forest disturbances remains one of the most critical problems facing southern Appalachian forest landowners. Forest regeneration shapes the values of essentially all southern Appalachian biological resources; e.g. wildlife species require specific forest structures and compositions to reproduce and survive, different tree species vary in their abilities to sequester carbon, etc.

Forest managers seek accurate predictions of tree regeneration following natural and anthropogenic disturbances to meet multiple land management objectives. However, we lack definitive understanding of forest understory responses to varied disturbances in the southern Appalachians. Research has sought to remedy this lack of understanding, but most investigations have yielded only short-term (generally less than 5 years) results (Johnson et al. 2009). These efforts have helped frame our understanding of early forest stand dynamics, but have done little to inform forest managers about the suite of successful regeneration sources likely to grow into the forest canopy. Specifically, forest managers lack information on hardwood understory success at crown closure, a critical life stage, usually reached within 10 to 15 years after large gap ($\geq$ .2 acres) creating disturbances (Loftis 1989).

Loftis has developed a multi-species regeneration prediction model, REGEN, which predicts tree regeneration successors at crown closure (Loftis 1989; Boucugnani 2005). REGEN is widely seen as the most useful and flexible of all regeneration predictive tools for mixed hardwood-pine stands. The REGEN model is now being tested to determine prediction accuracy. Because long-term investigations of regeneration success (from establishment through canopy closure within the same stand) are rare, tests of Loftis' model have generally relied on a chronosequence approach to test model outcomes (Vickers et al. 2011). Essentially, chronosequence studies trade space for time where regeneration has been inventoried in mature stands before harvest and in other stands that have reached crown closure; pre-harvest vs. crown closure regeneration sources can then be compared to test model prediction accuracy.

Chronosequence investigations can provide much needed information about model accuracy. However, chronosequences are fraught with problems- site quality and disturbance histories often vary widely among different stands used for pre- vs. post-harvest comparisons (Elliott and Loftis 1993). These anomalies can substantially confound model tests. Clearly, following regeneration success on the same stands that share common site quality and disturbance histories through time would be the "gold standard" for testing REGEN accuracy.

We propose to test the accuracy of REGEN by summarizing our findings of southern Appalachian tree regeneration success across several empirical studies started in the mid-1990s where subject stands are now at or just beyond canopy closure. Because regeneration has been inventoried pre-disturbance and also post-disturbance at or near crown closure on the same stands, these data sets would provide the ideal test-bed to validate Loftis' REGEN model.

Beyond simply testing the accuracy of REGEN, this work will highlight the relationships among understory responses and environmental gradients in hardwood/ pine ecosystems. Foresters would gain understanding of the probabilities of natural and artificial regeneration success at or near crown closure as a function of varied tree canopy densities, site qualities, and disturbance mechanisms.

Specific studies that would be used to test REGEN include:

- Understory responses in and around forest gaps following a hurricane.
- Understory responses following shelterwood /underburning.
- Understory responses after single tree selection cutting.

These 3 investigations span a wide array of site qualities ranging from xeric to mesic (with varied soil fertility) and canopy gap sizes. All 3 investigations include inventories of pre-harvest and post-harvest tree regeneration sources by species and origin. Final regeneration inventories of these 3 studies will serve as the end point data source to test the REGEN model.

Next, accuracy test results would be used to calibrate REGEN's performance and prepare the model to be passed successfully to the Forest Vegetation Simulator (FVS) (Dixon 2013). FVS offers forest managers a flexible growth and yield projection platform supported by expert full time US Forest Service staff. Calibrating REGEN's function within FVS would enable forest managers to accurately predict regeneration outcomes in the southern Appalachians. This predictive capability is essential for managers seeking to predict mast production, wildlife cover, and future timber management opportunities after forest disturbances.

Some meta-analysis may be conducted to create an integrated data set that would speed hypothesis testing and overarching understanding of key points.

The proposed work clearly meets the following SFI special-interest categories (emphasis highlighted in yellow):

Working forests: Proposals are encouraged that (1) provide guidance, technical assistance, or the business case to forest landowners about working forest conservation easements, or (2) promote recreational opportunities for outdoor enthusiasts in SFI-certified forests, or (3) examine the intersection between healthy, managed forests and public benefits, including clean air and water, wildlife habitat, and other ecosystem functions.

Wildlife and Biodiversity: Proposals are encouraged that (1) restore key wildlife habitat impacted by natural disturbances such as fire or flood, or (2) protect, promote, illustrate, or improve biodiversity and wildlife habitat practices to meet SFI Standard requirements.

This proposal precisely meets the requirements for working forests: "…examine the intersection between healthy, managed forests and public benefits, including…wildlife habitat, and other ecosystem functions" and also clearly meets the wildlife and biodiversity category: "…improve biodiversity and wildlife habitat practices to meet SFI Standard requirements". Of particular concern to land managers is their lack of knowledge about future tree species composition after timber harvest. Lack of knowledge about masting potential, especially for the oaks, is critical. If funded, the proposed work will calibrate easy to use tools

to predict the successful suite of regeneration sources, including the number of successful oaks and other masting species important to wildlife.

Further, no forestry issue so clearly meets the needs of advancing SFI's number one principle, *Sustainable Forestry: …practicing a land stewardship ethic that* integrates *reforestation* and the managing, growing,nurturing and harvesting of trees for useful products and ecosystem services …" as reforestation. Essentially all forest ecosystem services stem from arborescent species composition and structure. And, successful reforestation is that which meets land owner objectives. The proposed regeneration modeling work would enable landowners to determine if they can meet their objectives.

Project outcomes would be wide-reaching and would include:

- The proposed work meets multiple SFI objectives, standards and elements.
- Outcomes- forest managers in the southern Appalachians would be enabled to meet SFI sustainability objectives.
- SFI would sponsor the refinement of practical, applied tools for forest managers.
- Improved reforestation prediction tools that will change federal and state government agency policies and behavior. Specifically, land owners will be able to improve state-guided Stewardship plans with clear and focused predictions of forest regeneration after management activities such as forest cuttings, particularly regeneration cuttings such as shelterwood and single tree selection.
- Improved landowner knowledge about Appalachian reforestation.
- Significant advancement of the preeminent growth and yield modeling system in the United States, the Forest Vegetation Simulator (FVS).
- Transfer of state of the science regeneration knowledge to land owners, forestry consultants, and foresters.
- 3 to 6 peer reviewed journal articles that would form the scientific foundation for practical tools.
- A synthetic state of knowledge publication.
- Clear recognition of SFI as a leader in science-based forest management. Project collaborators would be willing to attend SFI meetings as needed to relay project progress.
- Project-based tools would be posted at Virginia Tech and Virginia Division of Forestry web sites.

Appendix B: Background on individual investigations

Understory responses in and around forest gaps following a hurricane.

Original Study Objectives

- Characterize forest understory (trees, shrubs, herbs) responses to gaps created in southern Appalachian mixed hardwood-pine forests.
- Relate these responses to plant position in and around gaps and forest canopy cover.
- Characterize changes in solar radiation, soil moisture, and soil nutrients along linear distance gradients from gap center to gap perimeter and beyond.
- Characterize gap partitioning: i.e. varied tree species colonizing at different positions within and around forest gaps; focus on opportunities for the oaks.

History

- Hurricane Opal created multiple canopy gaps greater than .2 acres in areal extent within the Bent Creek Watershed (located near Asheville, NC) on October 5, 1995 over approximately 8 hours (fig. 1).
- Gaps included in this investigation were located in mature forest acidic cove hardwood sites that had been repeatedly cutover and grazed by livestock since the early 1800s.
- Understory tree regeneration was censused within and around 12 “Opal” gaps in 1996, 1997, 1998, and 2005. Measurements were taken of understory plants in 269 circular quadrats located along linear transects (fig. 2).
- Two seedlings were tagged within each tree regeneration quadrat; basal diameter, total height, regeneration origin (seed vs. sprout), and survivorship were measured during each census.
- Herbaceous species richness and shrub cover were measured during each census.
- Overstory tree canopy and midcanopy cover were measured in 1996 at each quadrat center.
- Solar radiation was imputed from hemispherical photographs taken in 1998 and 2003 (fig. 3). The 1998 photos were taken at quadrat centers 1 meter above ground. The 2003 photos were taken at 1 and 2 meters above ground and immediately above the leader of each tagged seedling.
- Published early results (Berg 2003; Berg and Van Lear 2003; Berg and Van Lear 2004).

Planned Measurements- 2013

- Census all understory plants, and re-measure herbaceous species richness and tagged seedling attributes as above. Identify canopy position (dominant, overtopped, etc.) of all tagged seedlings.

Planned Analysis- 2013/2014

- Relate tree seedling survivorship and growth response variables to site quality, gap location, cover, and solar radiation covariates through regression (likely mixed models).
- Compare 1996 and 2013 tree seedling census data to test the REGEN model.

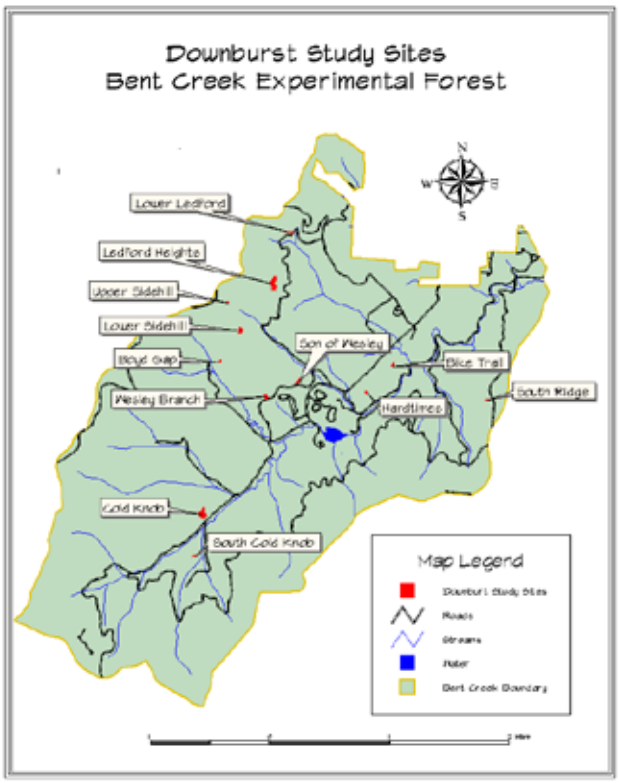

Fig. 1. Hurricane Opal Downburst study plots, Bent Creek Experimental Forest.

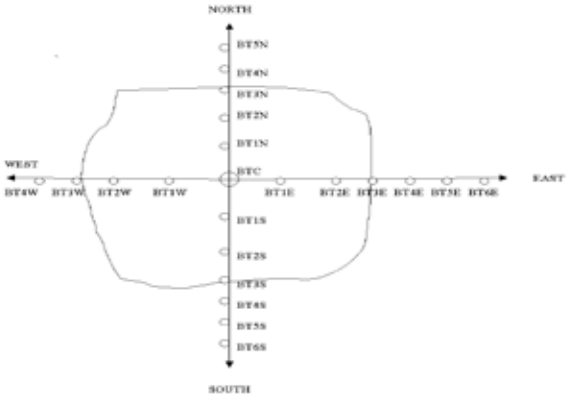

Fig. 2. Hurricane Opal gap quadrat locations along linear gradients; gradients extend beyond gap boundaries into unaffected forest (example - one of 12 study gaps).

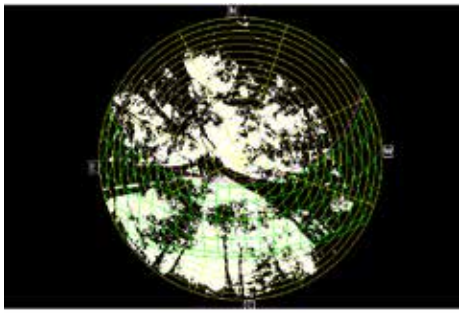

Fig. 3. Hurricane Opal plots: Hemispherical photo taken at quadrat center.

Understory responses following shelterwood / underburning

Original Objectives

- Test the hypothesis that understory burning coupled with shelterwood cutting can enhance white pine and oak species survivorship, growth, and dominance attainment at crown closure in mature, mixed white pine-hardwood stands.

History

- This investigation has been conducted in the Blue Valley Experimental Forest, western North Carolina (fig. 4). Sites included in this investigation are located in mature forest highly acidic cove hardwood sites that had been repeatedly cutover and grazed by livestock since the early 1800s.
- Installed randomized complete block design to test hypothesis using three, 3 acre burn plots and immediately adjacent non-burned "controls" in a mixed white pine hardwood stand in June 1995 (fig. 5).
- Understory tree regeneration was censused in June 1995 within 30 1/100 acre quadrats in each of 3 burn plots (90 total quadrats).
- Five seedlings were tagged within each tree quadrat; each tagged seedling's basal diameter, total height, regeneration origin (seed vs. sprout), and survivorship were measured during the 1995 census.
- The three plots were underburned (immediately before leaf-on) in April 1996. One half of the quadrats in each plot were burned, the other quadrats were left unburned as a "control".
- Seedlings were remeasured in 1998 immediately before shelterwood cutting. Logging was completed in all 3 plots from June to August 1998. The treatment was therefore shelterwood harvest coupled with a pre-harvest burn.
- Seedlings were again re-measured in 2000 and 2005.
- Tree basal area density was measured at each quadrat center in 2000 after shelterwood cutting; residual basal area through all 3 plots was approximately 50 square feet per acre.
- Solar radiation was imputed from hemispherical photographs taken in 2000. Photos were taken at 1 and 2 meters above ground and immediately above the leader of each tagged seedling.
- Published fire behavior ms. in 1990s (Clinton et al. 1998) and presented 10 year understory survivorship and growth results to the Society of American Foresters Convention in 2011 (Berg 2011).

Planned Measurements- 2013

- Census all understory plants, and re-measure tagged seedling attributes as above. Identify canopy position (dominant, overtopped, etc.) of all tagged seedlings.

Planned Analysis- 2013/2014

- Relate tree seedling survivorship and growth response variables to site quality to burn treatment, residual stand density, and solar radiation covariates through regression (likely mixed models). Compare 1995 and 2013 tree seedling census data to test the REGEN model.

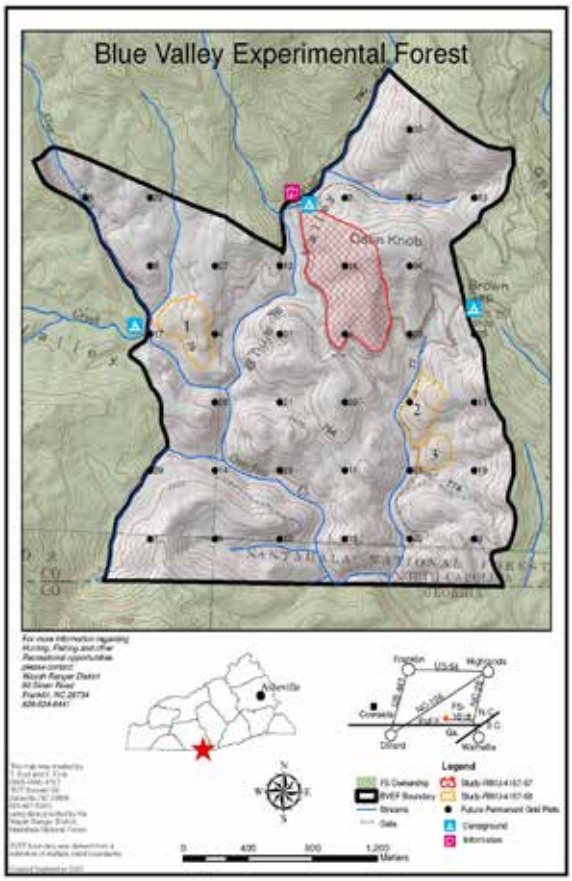

Fig. 4. Shelterwood/underburn stand (red shading) and single tree selection plots (yellow shading).

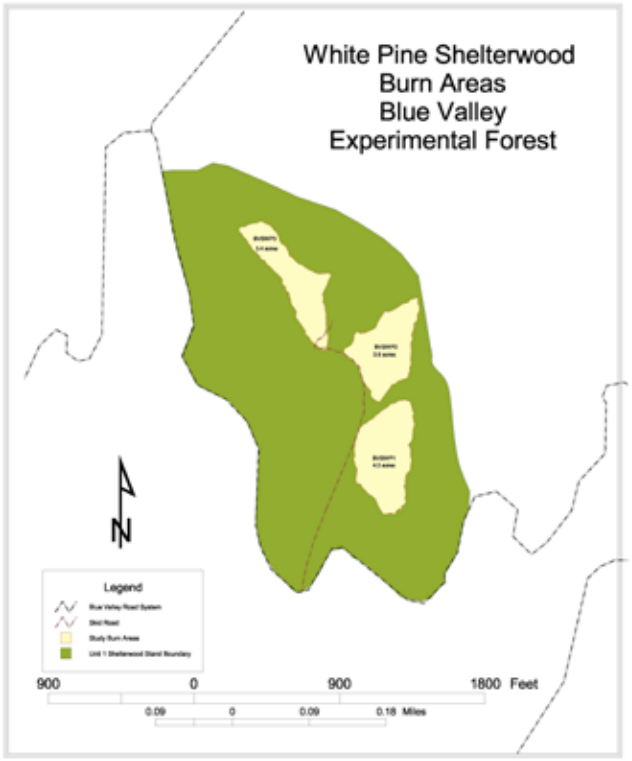

Fig. 5. Shelterwood/underburn plots, Blue Valley Experimental Forest.

Understory responses after single tree selection cutting.

Original Objectives

- Test the hypothesis that white pine-hardwoods can be successfully regenerated and grow into progressively larger size classes by using the single tree selection method.

History

- This investigation has been conducted in the Blue Valley Experimental Forest (fig. 5). Sites included in this investigation were located in mature forest highly acidic cove hardwood sites that had been repeatedly cutover and grazed by livestock since the early 1800s.
- Installed 3 study plots (10 to 40 acres each) to test hypothesis with nested circular subplots sharing the same centers (large trees $\geq$ 6.0 inches DBH in .1 acres; saplings 1.6 inches to 5.9 inches DBH in .025 acres; regeneration $\leq$ 1.5 inches DBH in 1/300 acres) in 1996.
- Understory tree regeneration was censused in July 1996 within 1/300 acre subplots.
- Two seedlings were tagged within each tree regeneration subplot; each tagged seedling's basal diameter, total height, regeneration origin (seed vs. sprout), and survivorship were measured during the 1996 census.
- Timber was marked to cut in the three plots; two plots were prescribed with 70 square feet per acre residual overstory densities, and the remaining plot was marked to a 40 square foot residual density.
- Timber was chain saw felled and skidded by rubber tired skidder on two plots. Timber on the remaining plot was chain saw felled and skidded by horse.
- Residual stand densities turned out to be approximately 40 % higher than that specified in the prescription. Timber was remarked in 2000 to target densities. Regeneration quadrats were re-measured in 2001. Timber was re-logged in 2003; this time residual densities approximated target levels.
- Seedlings were re-measured in 2004.

Planned Measurements- 2013

- Census all seedlings and re-measure tagged seedling attributes as above. Identify canopy position (dominant, overtopped, etc.) of all tagged seedlings.

Planned Analysis- 2013/2014

- Relate tree seedling survivorship and growth response variables to site quality and residual stand density through regression techniques (likely mixed models).
- Compare 1996 and 2013 tree seedling census data to test the REGEN model.

Appendix C. REGEN Model Background

The REGEN Model is based on expert opinion and incorporates the knowledge of a wide array of expert silviculturists and forest managers (Boucugnani 2005). REGEN predicts which regeneration sources attain dominant or codominant status at canopy closure (fig. 6) based on tree species and origin (from seed or sprout) (fig. 7). For example, yellow poplar stump sprouts grow faster in height than any other regeneration source in southern Appalachian cove sites. Yellow poplar sprouts are therefor ranked highest in probability to gain dominance at canopy closure. Small white oak seedlings grow slower than any associate on the same sites; they are therefore rated lowest in probability to gain dominance.

REGEN currently operates as an easy to use Excel application; it features stochastic regeneration events and can accommodate varied plot sizes and site qualities.

Our proposed research would test and recommend changes to current rankings, then port these results to the Forest Vegetation Simulator.

Fig. 6. Dominant red oak at crown closure.

Table 1—Ranking of expected postharvest performance

Ranking	Expected postharvest performance
1	Yellow-poplar-SP, black cherry-SP, black locust-SP, basswood-SP
2	Red maple-SP, sugar maple-SP, silverbell-SP, Fraser magnolia-SP, cucumber-SP, ash-SP, birch-SP, white pine-L, yellow-poplar-L, black cherry-L, birch-L
3	Basswood-L, yellow-poplar-M, black cherry-M, birch-M, silverbell-L, Fraser magnolia-L
4	Oak-SP, oak-L, ash-L, red maple-L, cucumber-L, hickory-SP, dogwood-SP, sourwood-SP, blackgum-SP, beech-SP, buckeye-SP, yellow-poplar-S, birch-S, black cherry-S, sugar maple-L, hemlock-L, white pine-M
5	Yellow-poplar-SE, black cherry-SE, birch-SE, oak-M, basswood-M, ash-M, red maple-M, silverbell-M, Fraser magnolia-M, cucumber-M, white oak-SP, hickory-L, dogwood-L, sourwood-L, blackgum-L, beech-L, buckeye-L, fire cherry-SE, sugar maple-M
6	Hickory-M, white oak-M, sourwood-M, blackgum-M, beech-M, buckeye-M, hemlock-M, white pine-S
7	Oak-S, ash-S, basswood-S, silverbell-S, Fraser magnolia-S, red maple-S, dogwood-M
8	White oak-S, hickory-S, dogwood-S, sourwood-S, blackgum-S, beech-S, buckeye-S

SP = stump sprout; L = large advance reproduction (> 4 feet; > 3 feet for yellow-poplar); M = medium advance reproduction (> 2 feet; ≥ 1 feet < 3 ft for yellow-poplar); S = small advance reproduction (< 2 feet; < 1 ft for yellow-poplar); SE = new seedlings established after harvest.

Fig. 7. REGEN model rankings. Sources sharing the same ranking are expected to attain approximately the same dominance status.

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SELECTED PROFESSIONAL ACTIVITIES
SAF Member since 1976
Soil Science Society of America Member Since 1982
Soil Science Society of America – Chair of Forest Soils Division
Soil Science Society of America Reorganization Task Force (Chair)
Virginia Forestry Association, Board of Directors
Associate Editor – Forest Science
Associate Editor – Soil Science Society of America Journal
Associate Editor – Southern Journal of Applied Forestry
Guest Associate Editor – Forest Science
Guest Associate Editor – International Journal of Forestry
Editorial Board – Revista BOSQUE
AF&PA Sustainable Forestry and Wetlands Committees
AF&PA Forest Science and Technology Committee
NCASI Forest Environmental Studies Task Group (Chair)
NCASI Forest Health and Wetlands Research Committee (Chair)
Florida Division of Forestry BMP Technical Advisory Committee
Georgia Traditional Industries Program - Fiber Supply Working Group (Chair)
Georgia Forestry Association Environmental Committee
Florida Forestry Association Endangered Species Task Force
Florida Forestry Association Forest Fertilization & Water Quality Task Force
SAF Silviculture Instructors Working Group
Science and Technology Chair – Appalachian SAF
SAF Soils Working Group (Chair)
Suwannee Chapter of Florida SAF (Chair 2 years)

HONORS AND AWARDS
Elected Fellow Soil Science Society of America (2012)
Elected Fellow Society of American Foresters (2012)
Southern Extension Forest Resources Specialists Gold Award (2012)
Fulbright Scholar (2010-2011)
Virginia Tech Scholar of the Week (2007)
Virginia Tech College of Natural Resources Award for Outreach Excellence (2006)
Certificate of Appreciation H.J. Heinz III Center for Science, Economics and the Environment (2004)
Soil Science Society of America Service Award (2004)
NCASI Outstanding Service Award (2000)
Steven Spurr Research Award Florida SAF (1998)
Rayonier President's Achievement Award (1998)
University of Florida Forest Biology Research Cooperative Recognition Award (1997)
Who's Who in Science and Engineering (1990 to present)
Sigma Xi (1989)
Xi Sigma P (1980)
Alpha Zeta (1979)

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5. Fox, T.R., and R. R. Hicks. 2004. Forest Productivity. Chapter 6. *In* Southern Forest Science: Past, Present, Future. USDA Forest Service. General Technical Report SRS-75. 394 pp.

6. Fox, T.R., Miller, BH, Stape, J.L., Rubilar, R.P. and Albaugh, T.J. 2010. Phosphorus Nutrition and Fertilization in Forest Plantations. In Bunemann, E., Oberson, A. and Frossard, E. (eds.) Phosphorus in Action – Biological Processes in Soil Phosphorus Cycling. Soil Biology Series. Springer.

7. Fox, T.R. and J. Creighton. 2012. Silvics of Oak. *In* A Practical Guide to Managing Oak Forests in the Eastern United States. University of Tennessee Press.

8. Kiser, L.C. and T.R. Fox. In Press. Short Rotation Woody Crop Biomass Production for Energy. Chapter 6. *In* B. Singh (Ed.). Biofuel Crop Sustainability. John Wiley and Sons.

Papers in Refereed Journals

1. Fox, T.R., J.A. Burger, and R.E. Kreh. 1986. Effects of site preparation on nitrogen dynamics in the southern Piedmont. Forest Ecology & Management. 15(4):241-256.

2. Fox, T.R. 1986. Raspberry (Rubus ideaus L.) competition effects on balsam fir (Abies balsamea (L.) Mill.) seedlings in northern Maine. Tree Planters' Notes. 1986:20-23.

3. Fox, T.R., and N.B. Comerford. 1990. Low-molecular-weight organic acids in selected forest soils of the southeastern USA. Soil Science Society of America Journal. 54:1139-1144.

4. Fox, T.R., N.B. Comerford, and W.W. McFee. 1990. Kinetics of Phosphorus release from Spodosols: Effects of oxalate and formate. Soil Science Society of America Journal. 54:1441-1447.

5. Fox, T.R., N.B. Comerford, and W.W. McFee. 1990. Phosphorus and aluminum release from a spodic horizon mediated by organic acids. Soil Science Society of America Journal. 54:1763-1767.

6. Maimone, R.A., L.A. Morris, and T.R. Fox. 1991. Soil nitrogen mineralization potential in a fertilized loblolly pine plantation. Soil Science Society of America Journal. 55:522-527.
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7. Fox, T.R., and N.B. Comerford. 1992. Rhizosphere phosphatase activity and phosphatase hydrolyzable organic phosphorus in two forested Spodosols. Soil Biology and Biochemistry. 24:579-583.

8. Fox, T.R., and N.B. Comerford. 1992. Influence of oxalate loading on phosphorus and aluminum solubility in Spodosols. Soil Science Society of America Journal. 56:290-294.

9. Lan, M., N.B. Comerford, and T.R. Fox. 1995. Effects of organic anions with different Al complexation constants on P release from Spodic horizons. Soil Science Society of America Journal. 59:1745-1749.

10. Fox, T.R. 2000. Sustained productivity of intensively managed forest plantations. Forest Ecology and Management. 138(1-3):187-202.

11. Johnsen, K., L. Samuelson, R. Teskey, S. McNulty, and T. R. Fox. 2001. Process models as tools in forestry research and management. Forest Science. 47:2-8.

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18. Casselman,C.N., T.R. Fox, J.A. Burger, A.T. Jones, and J. M. Galbraith. 2006. Effects of silvicultural treatments on survival and growth of trees planted on reclaimed mine lands in the Appalachians. Forest Ecology and Management. 223(1-3):403-414.

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21. Carlson, C.A., T.R. Fox, S.R. Colbert, D.L. Kelting, H. L. Allen, and T.J. Albaugh. 2006. Growth and survival of Pinus taeda in response to surface and subsurface tillage in the southeastern United States. Forest Ecology and Management. 234(1-3):209-217.

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26. Jones, P.D., and T.R. Fox. 2007. Wood density in Pinus taeda x Pinust rigida and response 10 years after thinning in Virginia. Forest Products Journal. 57(12):70-73.

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45. Zerpa, J. L. and T.R. Fox. 2011. Controls of Volatile NH3 losses from loblolly pine plantations fertilized with urea in the Southeast US. Soil Science Society of America Journal. 75:257-266.

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59. Albaugh, T.J., H.L. Allen, J.L. Stape, T.R.Fox, R.A. Rubilar, and J. Price. In Press. Intra-annual nutrient flux in *Pinus taeda*. Tree Physiology.

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61. Albaugh, T.J., E.D. Vance, C.Gaudreult, T.R. Fox, H. L. Allen, J. L. Stape, and R.A. Rubilar. In Press. Carbon emissions and sequestration form fertilization of pine in the southeastern United States. Forest Science.

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2. Fox, T.R. 2004. Species deployment strategies for the southern pines: Site specific management practices for the Flatwoods of Georgia and Florida. Pp 50-55. *In* E.D. Dickens, J.P. Barnett, W.G. Hubbard, and E.J. Jokela (Eds.) 2002 Slash Pine Symposium. General Technical Report 2003. Gen Tech Rep SRS-P-000. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station.

3. Haas, C.A., D. Wm. Smith, S.M. Zedaker, T.R. Fox, R.H. Jones, and A. L. Hammett. 2004. Alternative silvicultural practices in Appalachian forest ecosystems: implications for diversity, resilience, and commercial production. *In* Moore, S. and R. Bardon, eds. Enhancing the Southern Appalachian Forest Resource Symposium Proceedings, [CD-ROM] (2004), Hendersonville, NC, 2-3October 2003. NCSU. Available at: http://www.ncsu.edu/feop/symposium/proceedings_2003.

4. Fox, Thomas R., Carola A. Haas, Robert H. Jones, David Wm. Smith, David L. Loftis. Shepard M. Zedaker, and A.L. Hammett. 2006. Alternative silvicultural practices in Appalachian Forest
Ecosystems: Implications for Species Diversity, Ecosystem Resilience, and Commercial Timber Productions. *In* Proceedings of the 15th Central Hardwood Forest Conference. USDA Forest Service. Gen. Tech. Rep.

5. Atwood, C.J., Fox, T.R., Loftis, D.L., 2008. Stump sprouting of oak species in three silvicultural treatments in the southern Appalachians In: Jacobs, Douglass F.; Michler, Charles H., eds. Proceedings, 16th Central Hardwood Forest Conference; 2008 April 8-9; West Lafayette, IN. Gen. Tech. Rep.NRS-P-24. Newtown Square, PA: U.S. Department of Agriculture, Forest Service,Northern Research Station.

6. Sucre, E. B. and T.R. Fox. 2008. Contributions of stumps to carbon and nitrogen pools in southern Appalachian hardwood forests. pp. 233-239. In: Jacobs, Douglass F.; Michler, Charles H., eds. Proceedings, 16th Central Hardwood Forest Conference; 2008 April 8-9; West Lafayette, IN. Gen. Tech. Rep.NRS-P-24. Newtown Square, PA: U.S. Department of Agriculture, Forest Service,Northern Research Station.

7. Fields-Johnson, C., T.R. Fox, J.A. Burger, and C.A. Zipper.. Fourth-year tree response to three levels of silvicultural input on mined land. 2008 National Meeting of the American Society of Mining and Reclamation, Richmond VA, June 14-19, 2008. Published by ASMR, 3134 Montavesta Rd., Lexington, KY 40502.

8. Cotton, C.A., S. Prisley, and T.R. Fox. 2008. Mapping upland hardwood site quality and productivity with GIS and FIA in the Blue Ridge of North Carolina. In. McWilliams, W., Molsen, Gretchen, Czaplewski, R. eds. Proceedings Forest Inventory and Analysis (FIA) Symposium 2008. Oct 21-23, Park City, UT. RMRS-P-56CD. Fort Collins, CO. US Department of Agriculture, Forest Service, Rocky Mountain Research Station. 1 CD.

9. Vickers, L.A., T.R. Fox, J.L. Stape, and T.J. Albaugh. 2012. Silviculture of varietal loblolly pine plantations: Second year impacts of spacing and silvicultural treatments on varieties with differing crown ideotypes. Pp. 361-365. In Butnor, J.R. (ed) Proceedings of the 16th Biennial Southern Silviculture Research Conference. Southern Research Station e-General Technical Report SRS-156. USDA Forest Service Asheville, NC

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Employment

2010 to present: Research Forester, Bureau of Business and Economic Research. Missoula, Montana.

- I investigate the flow of wood from stump to mill and beyond. My research characterizes employment, timber harvest, and product outputs of the western U.S. forest industry.
- Predicting Forest Residue Biomass: I am developing predictive models of woody forest residues at the individual tree and stand levels.

2006 to 2010: U.S. Geological Survey Wildland Fire Science Coordinator, stationed in Reston,Virginia. I led all USGS wildland fire and fuels science efforts.

2004 to 2006: Joint Fire Science Program Manager, stationed at the National Interagency Fire Center in Boise, Idaho. I directed a $16 million per year wildland fire science funding program.

1994 to 2004: Forester, Bent Creek Experimental Forest, Southern Research Station, USDA Forest Service in Asheville, North Carolina; managed the Bent Creek technology transfer program and researched upland hardwood and conifer responses to disturbance. Research focused on vegetation responses to wind, fire, ice, single-tree and group selection, and shelterwood treatments, with an emphasis on spatial and resource gradient effects on forest understory vegetation.

1991 to 1994: Silviculturist, Idaho Panhandle NF's Forest Supervisor's Office.

1985 to 1991: Forester, Idaho Panhandle NF's St. Maries Ranger District. St. Maries, Idaho. Served as the Timber Management Assistant and District Silviculturist.

1981 to 1985: Forester, Bitterroot NF Darby Ranger District. Darby, Montana. Served as the Timber Management Assistant.

1978 to 1981: Forester, Idaho Panhandle NF's Avery Ranger District. Avery, Idaho. Served as the District Silviculturist.

1976 to 1978: Forester, Clearwater NF Pierce Ranger District. Kamiah, Idaho. Served as a timber sale administrator.

1974 to 1976: Forester, Bureau of Indian Affairs Flathead Reservation. Ronan, Montana. Prepared and administered timber sales.

Education

Degree	School
BS (Forestry)	University of Idaho
MF	University of Idaho
MS	Washington State University
MBA	University of Idaho
Ph.D. (Forest Ecology; minor in Experimental Statistics)	Clemson University

Professional Memberships

- Member, Society of American Foresters (SAF)
- SAF Certified Forester
- Member, Xi Sigma Pi (Forestry Academic Honor Society).

Recent Publications and Presentations

Berg, E., E. Simmons, T. Morgan, C. Gale, and S. Hayes. 2012. Predicting woody residue volumes created by logging. Refereed journal manuscript in preparation.

Berg, E., E. Simmons, T. Morgan, C. Gale, S. Zarnoch and S. Hayes. 2012. Estimating logging residues in the State of Idaho: preliminary predictive models. Oral presentation at the 2012 Society of American Foresters Annual Convention. Spokane, WA.

Berg, E. 2003. Silvicultural systems for the southern Appalachians. Paper presented in: Enhancing the Southern Appalachian Forest Resource. Symposium held October 2-3, 2003. Kanuga Conference Center. Hendersonville, NC. North Carolina State University.

Berg, E. 2003. Survivorship and growth of oak regeneration in wind-created gaps. Upland Oak Ecology Symposium. Pp. 143-149. Symposium held October 2002 at Fayetteville, AR. USDA Forest Service Southern Research Station GTR SRS-73. Asheville, NC.

Berg, E. 2007. Characterizing and classifying complex fuels – a new approach. Can. J. For. Res. Vol. 37: p. 2381.

Berg, E., B. Clinton, J. Vose, and W. Swank. 2011. Ten-year responses of oak regeneration to prescribed fire. Presentation made at the Society of American Foresters Convention. November 2011. Honolulu, HI.

Berg, E. and D. Van Lear. 2003. Herbaceous species richness in hurricane-created gaps in the southern Appalachians. In: North American Forest Ecology Workshop. Workshop held June 16-20, 2003. Corvallis, OR. Oregon State University.

Berg, E. and David H. Van Lear. 2004. Yellow-poplar and oak seedling density responses to wind-generated gaps. Paper presented in: 12th Biennial Silvicultural Research Conference. Pp. 254-259. Conference held February 24-28, 2003. Biloxi, MS. USDA Forest Service Southern Research Station GTR SRS-71. Asheville, NC.

Gale, C., C. Keegan III, E. Berg, J. Daniels, C. Sorenson, T. Morgan, P. Polzin, and G. Christensen. 2012. Oregon's forest products industry and timber harvest, 2008. Industry trends and impacts of the Great Recession though 2010. USDA Forest Service PNW-GTR-868. Portland, OR.

Hayes, S., T. Morgan, E. Berg, J. Daniels, M. Thompson. 2012. The four corners timber harvest and forest products industry, 2007. USDA Forest Service Rocky Mountain Research Station Resource Bulletin RMRS-RB-13.

Keegan, C., C. Sorenson, J. Daniels, E. Berg, C. Gale. 2011. The "Great Recession" and the western forest products industry. . Presentation made at the Society of American Foresters Convention. November 2011. Honolulu, HI.

Loftis, D., W. McNab, E. Berg, and T. Oprean. 2004. Lessons learned in 81-year-old plots at Looking Glass Rock, North Carolina. Presented at "Silviculture in Special Places". Pp. 235-241. Workshop held September 8-11, 2003. Granby, CO. USDA Forest Service RMRS-P-34.

McNab, W., C. Greenberg, and E. Berg. 2004. Landscape distribution and characteristics of hurricane related blowdown areas in a Southern Appalachian watershed. Forest Ecology and Management 196: 435-447.

McNab, W., T. Oprean, and E. Berg. 2005. Response to prescribed burning of five-year-old hardwood regeneration on a mesic site in the Southern Appalachians. Presented at "Restoring Fire Adapted Ecosystems". National Silviculture Workshop held June 6-10, 2005. Tahoe City, CA. USDA Forest Service.

Morgan, T., E. Simmons, E. Berg, C. Gale, S. Hayes, C. Sorenson. 2012. Characterizing logging residues as potential feedstock for the manufacture of biojet. Presentation made June 2012 to the Western Forest Economists Meeting in Newport, Oregon.

Morgan, T., E. Simmons, E. Berg, C. Gale, S. Hayes. 2012. Forestry is rocket science: quantifying logging residues as feedstock for bio-jet and other uses. Poster presented at the International Wood Composites Symposium, April 11-13, 2012. Seattle, WA.

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Skills Summary

· Southern pine regeneration	· Hardwood silviculture	· Contract negotiation
· Silvicultural prescriptions	· Risk management	· MS Word, Excel, Access
· Research - design & analysis	· Strategic planning	· Policy development

Professional Experience

Research Program Manager
Virginia Department of Forestry, Charlottesville, VA (2005-)
· Manage personnel (6) and budget ($310,000) to efficiently conduct focused research in pine and hardwood silviculture, tree improvement, species restoration, and growth and yield.
· Publish timely reports and present training courses for Department of Forestry personnel to accelerate adoption of new technologies and best practices.
· Collaborate with key research organizations and partners (VPI Forest Modeling Cooperative, NC State Cooperative Tree Improvement Program, NC State / VPI Forest Productivity Cooperative, Longleaf Alliance, American Chestnut Foundation, USFS SRS, Virginia State University, NSF, The Nature Conservancy) to leverage research activities.
· Provide analysis and recommendations for individual forest landowners as requested.

Manager: Silvicultural Best Practices
International Paper Company, Forest Resources Division, Savannah, GA (2003-2004)
· Negotiate and manage herbicide and fertilizer contracts - $35 MM per year on 8 MM acres.
· Maintain and implement pesticide and prescribed burning best practices policies.
· Lead development and implementation of precision forestry herbicide application systems.
· Oversee soil mapping and data management for division GIS and growth and yield systems.
· Conduct relevant research to minimize herbicide and fertilizer costs and use rates.
· Provide analysis and recommendations on tree planting, spacing, and road classification.

Manager: Best Practices – Silvicultural Chemicals
International Paper Company, Forest Resources Division, Savannah, GA (2000-2003)
· Consolidated all US pesticide purchasing and application and negotiated a sole-supplier agreement worth $120 MM at a savings of $12+ MM over three years.
· Negotiated South-wide fertilizer program contracts that saved $3 million (17%) the first year.
· Developed contract for airborne imagery acquisition estimated to reduce cost by 24 percent.

Forest Health Program Manager
Champion International - Pensacola, FL (1997-2000)
· Negotiated pesticide purchase and application contracts (*saved $1.9MM*) and monitored prescription efficiency (*savings $.75 MM*) for eight company regions and 160+ employees.
· Final approval authority for all risk management plans, prescriptions, purchasing, and contracting of a $10 MM annual pesticide program on 5.5 MM acres in the continental US.

- Developed and implemented computer-based planning and prescription tools.
- Organized and presented employee training programs.

Research Scientist / Field Station Leader
Westvaco Corporation - Appomattox, VA (1992-1997)
- Managed a three-person research station budgeted at $180,000, conducting research in genetics & tree improvement (35%), site preparation and early competition control in loblolly pine (30%), land classification (13%), biometrics (12 %), technical support (7%), and stand nutrition (3%).
- Led two company-wide research planning missions budgeted at over $283,000.
- Completed a detailed land classification mapping effort and led the interdepartmental effort to produce the final GIS product for a 160,000+ acre land base.
- Developed and presented training sessions on herbicide prescriptions.

Research Forester
Westvaco Corporation - Rupert, WV (1987-1992)
- Developed, installed, monitored, and reported studies of pine and hardwood silviculture. *Emphasis on vegetation management using herbicides to alter competition dynamics in both pine and hardwood stands*.
- Research led to new and more cost-effective treatments for controlling herbaceous and hardwood competition; *saved $30,000+ per year on a 4,000-acre program*.
- Initiated innovative research exploiting herbicide selectivity to manage natural hardwoods.
- Additional projects: competition control on reclaimed surface mines, effects of vegetation management on non-crop plant species diversity and soil displacement, and deer browse impacts and prevention.

Research Associate
Auburn University Silvicultural Herbicide Cooperative - Auburn University, AL (1984-1987)
- Oversaw development, installation, data collection, and analysis for a southeast-region wide study to model pine growth response to varied intensities of competition.
- Collected, summarized, and archived data from over 100 herbicide screening and growth response studies across the southeastern United States between 1979 and 1986.
- Interacted and cooperated with personnel from 20-25 forest industries.
- Developed computer software for managing and printing the database for "*A Guide to Silvicultural Herbicide Use in the Southern United States*" (Cantrell 1985).

Research Assistant
University of Kentucky - Lexington, KY (1981-1984)

Forestry Technician (GS-4)
USDA Forest Service - University Park, PA (1980-1981)
- Earned Certificate of Merit "for an outstanding job in operating a sophisticated system for gathering solar radiation data and analyzing the data using computer programs with minimal supervision".

Education

M. S. Forestry GPA: 4.00 (*With Highest Distinction*)
University of Kentucky, Lexington, KY

B. S. Forest Science GPA: 3.95 (*#1 in School of Forest Resources*)
Pennsylvania State University, University Park, PA

Grant Application

Organization Information

Lead Organization Name and Address	Wildlands Network; P.O. Box 5284, Titusville, FL 32783
Name, phone and email for Project Director	Ron Sutherland, 919-401-7271; ron@wildlandsnetwork.org
Lead Organizational Mission Statement (25 words or less)	Networks of people protecting networks of Wildlands.
Lead Organization Annual Operating Budget	$701, 045
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	1. Rick Studenmund, The Nature Conservancy, rstudenmund@tnc.org; (919) 794-8869; 2. Rua Mordecai, US FWS South Atlantic LCC, rua_mordecai@fws.gov, 919-707-0122

Project Overview

Confirmed Project Partners (list organization name only)*	Project Title	Amount Requested	Total Project Budget	Brief Project Summary (50 words or less)	What element(s) of the SFI 2010-2014 Program does/do your Project address
Wildlands Network, NC SFI SIC, Resource Management Services LLC	Promoting and Enhancing the Role of Forest Landowners in Conserving Wildlife Habitat Connectivity in the Southeastern USA.	$34,900	$173,368	We will identify forest landowners whose properties are crucial for maintaining wildlife habitat connectivity across the Southeast region. We will then communicate with these landowners about the significant roles they can play in conserving habitat connectivity, and we will distribute our SFI-funded report, "The Business Case for Working Forest Easements".	Our project directly addresses the "Working Forests" and "Wildlife and Biodiversity" categories of the 2013 SFI RFP. Within the SFI Standards, our project promotes progress towards achieving at least three of the Principles of Sustainable Forestry: #4 Protection of Biological Diversity, #6 Protection of Special Sites, and #10 Research. See Outcomes below for more specific details on how our project complements many of the Objectives and Indicators of the SFI Standards.

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Wildlands Network	Dr. Ron Sutherland, Conservation Scientist and Interim Executive Director	ron@wildlandsnetwork.org; 919-401-7271; P.O. Box 5284, Titusville, FL 32783	Wildlands Network is focused on developing efficient and innovative strategies that yield more conservation results at a faster rate. We are passionate about the need to maintain habitat connectivity at regional and even continental scales, and also the protection of keystone species. Among other accomplishments, our interdisciplinary staff members have completed major conservation planning assessments in various parts of the Rocky Mountains and Northern Appalachians. In the Southeast, Dr. Ron Sutherland is leading an effort to map out key habitat connectivity areas for the region, and he has also recently co-authored a report outlining the business case for conservation easements on working forest lands.
North Carolina SFI SIC	Jim Durham, Committee Chair	jim.durham@ipaper.com; 910-362-4748; P.O. Box 710, Riegelwood, NC 28456	The NC SFI SIC promotes and supports the sustainable management of North Carolina's forest resources and is committed to ensuring the use of sound practices throughout many forestry-related industries. They maintain a strict certification program, a successful logger education program focused on environmental issues, as well as a Sustainable Forestry Teacher's Academy.
Resource Management Service, LLC	Tony Doster, Manager, NC Region	tdoster@resourcemgt.com; 910-790-1074 x409; 2704-C Exchange Drive, Wilmington, NC28405	RMS is a forestry-centered private timberland investment firm with over 60 years of experience in the integration of forestry and finance. Throughout their history they have pioneered many timber marketing and inventory techniques, provided acquisition services and asset management, and developed state-of-the –art systems and expertise that support institutional timberland investment management in the southern US.

Introduction:

Wildlands Network has been conducting a cutting-edge multi-species analysis of habitat connectivity for the South Atlantic Landscape Conservation Cooperative (SALCC) since 2011. This research is focused on 7 target species (black bear, red wolf, Florida panther, timber rattlesnake, eastern diamondback rattlesnake, and box turtle) and covers the coastal plain region from southern Virginia to northern Florida. The results from that study will be finalized by June 2013.

We want to be sure that the results from our habitat connectivity research are communicated directly with the stakeholders who can use our data to inform their own decisions about managing and protecting the landscape in the southeast. In particular, given the importance of working forests to the southeast region's wildlife habitat and biodiversity, we want to conduct targeted outreach to forest landowners to be sure they are informed about which of their land holdings are the most critical for maintaining habitat connectivity, and the options they have for conserving these special sites.

Over the period of 2011-2012, we completed an SFI-funded project to prepare a document presenting "The Business Case for Working Forest Easements". This high-quality report was aimed at a target audience of major forest landowners in the southeast, particularly Timber Investment Management Organizations (TIMO's) and Real Estate Investment Trusts (REIT's), since these groups now control much of the private forested acreage in the region. It is worth highlighting that protection of key habitat connectivity zones is perhaps an ideal usage for working forest easements, as in many cases there will be little or no change in the timber management practices needed to secure the ability of target wildlife species to move and disperse across the landscape. By protecting key habitat corridors from urban development, working forest easements can provide enormous benefits for wildlife populations while placing few if any restrictions on the usage of the land for sustainable timber production.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1: Communicate to forest landowners in the Southeast which key portions of their holdings are critical for maintaining habitat connectivity across the regional landscape	Complete connectivity models and identify forest landowners in possession of high-priority connectivity hotspots. Meet with these landowners to share science-based results and maps from our connectivity modeling, and describe how their lands fit into a regional conservation context.	Identification of key connectivity areas, special sites that have the potential to enhance the populations of many threatened and endangered species (***Performance Measures 4.1,4.2, and 6.1***). Using research to identify relevant landowners and improve their ability to promote conservation at stand and landscape levels (***4.1, 6.1***)	Production of credible mapping products delineating connectivity areas for 7 focal species throughout the southeast. Identification of 95% of landowners that fall within key connectivity areas. Outreach to 80% of landowners with property inside key connectivity areas.	$16,000	$134,468 (includes the funds used to conduct the SALCC habitat connectivity research)

Goal 2: Communicate to forest landowners in the Southeast the importance of maintaining habitat connectivity for conserving wildlife populations and promoting biological diversity, particularly in the face of climate change.	When we meet with identified high-priority forest landowners in the southeast, we will provide them with factual information regarding the importance of habitat connectivity for wildlife and biodiversity. We will stress the urgent need for species to be able to move across the landscape in order to adapt to climate change.	Describing to landowners the importance of conserving critical wildlife habitats/connectivity zones in the Southeast Region (***Performance Measure 8.1, Indicators 1d and 1g***). Broadening regional awareness and knowledge regarding climate change impacts on native wildlife and biodiversity, and how increasing connectivity can aid in the process of climate change adaptation (***Performance Measure 15.3, Indicator 2***).	Outreach to 80% of landowners with property inside key connectivity areas, personally visiting the top 20% of landowners in terms of size and importance for connectivity (phone and mail outreach for rest). At least 50% of forest landowners contacted express heightened appreciation of the role of habitat connectivity in conserving wildlife and biodiversity.	$5000 (*note that Goal 2's budget is dependent on the landowner ID and outreach conducted for Goal 1)	$2000

Goal 3: Provide forest landowners, forestry professionals, consultants, and relevant land conservation organizations in the Southeast with our previously completed (and SFI-funded) document, "The Business Case for Working Forest Easements".	The next step for the SFI-funded "Business Case..." document is to actively distribute the report to forest landowners across the region, using a variety of approaches and platforms. In addition to handing out the report in person to the landowners we will be meeting for the connectivity outreach, we will also bring copies to a number of relevant conferences and workshops. We will work with our SFI partners to place the document on the web in PDF format in a variety of locations, using social media and press releases to publicize its availability. In order to maximize distribution beyond that which we would be able to achieve on our own, we will also provide free copies of the report to forest and wildlife management professionals (such as consulting foresters), and also to land trusts and state and local conservation agencies/partnerships across the region.	Providing guidance to a wide range of forest landowners about the business case for conservation easements (***direct fit with 2013 RFP project category "Working Forests"***). Assisting with plans for protection of special sites for imperiled species and biodiversity, by facilitating the process of considering conservation easements as a crucial tool (***Performance Measure 4.1 Indicator 3; Performance Measure 6.1***).	Complete an edited, visually-appealing version of the "Business Case..." document fit for broad distribution. Distribute ~1,000 hard copies of the report through mailings, workshops, conferences, site visits, partner organizations etc. Post an electronic version of the report on at least 8 online sites, and announce its availability using at least 3 different social media platforms (Facebook, LinkedIn, and Twitter). Receive positive feedback from at least 20 landowners or partner groups that the document is useful for helping convince forest landowners to consider working forest easements.	$12,900	$2000

Goal 4: Provide SFI with expert guidance on how to potentially update the SFI Standards to include more specific language related to maintaining habitat connectivity for the conservation of wildlife and biodiversity.	During and after the other components of this project, we will actively consult with SFI staff on possible options for inserting language about habitat connectivity into the next iteration of the SFI certification standards. We expect that the numerous conversations we will have with a wide range of landowners about the significance of habitat connectivity will be very useful for presenting a cogent and well-thought-through plan for improving the SFI standards.	Presenting SFI with experience-based options for appropriate ways to mention habitat connectivity in the Standards, thereby improving the ability of forest landowners and program participants to focus on biodiversity conservation and protecting special sites. (thereby improving ***Performance Measures 4.1, 4.2, 6.1 and associated Indicators***)	Delivery of draft text options for incorporating habitat connectivity into the SFI Standards.	$1000	$0

Project Timeline

May 2013: Begin project

June 2013: Finish research identifying key sites across SALCC study region
Complete edits and layout improvements for Business Case document, print hard copies.

November 2013: Finish identifying and contacting half of all landowners within key connectivity zones, including travel to in-person meetings with 10% highest priority landowners.
Finish distributing half of all hard copies of Business Case document, including attendance at 3 conferences
Post Business Case document on websites, and publicize availability with social media

March 2013: Finish contacting the remaining half of all landowners, including in-person meetings with remainder of top 20% highest priority landowners
Finish distributing hard copies of Business Case document, including attendance at another 3 conferences
Solicit feedback from forest landowners and partners concerning the utility of the Business Case document

April 2014: Finish project, complete final report for SFI, including suggestions for improving the Standards to reflect habitat connectivity conservation

Project Budget

Expenditure	Amount Requested from SFI:	Matching Funds: Wildlands Network Grant from SALCC	Matching Funds: Wildlands Network Donors & Other Grants	In-Kind Contributions*
Staff Salary and Benefits	$5,000	$66,146	$29,322	$0
Operating Costs				
Research Activities	$5,000	$10,500	$5,000	$0
Meetings	$4,500	$3,000	$0	$0
Travel	$8,400	$3,000	$0	$0
Education & Outreach	$10,000	$0	$8,000	$5000 estimated donation of time by partners NC SFI SIC and RMS
Communications	$2,000	$8,500	$0	$0
Total	**$34,900**	**$91,146**	**$42,322**	**$5,000**

Budget Justification

A. Two-thirds of the matching funds come from an existing grant from the South Atlantic Landscape Conservation Cooperative. This grant is paying for the actual research to identify the key terrestrial connectivity zones for the region, and covers the period 2011-2013.
B. The requested $5,000 for staff time would cover Ron Sutherland's involvement in the forest landowner outreach project for the 2013-2014 period, when combined with matching funds from Wildlands Network donors (estimate of ~10% of Ron's time).
C. The Research Activities support requested (plus the Wildlands Network match from donors and other grants) would cover a contractor's time to identify the priority landowners to contact.
D. The Meetings support requested would include travel to 6 conferences/major workshops in the Southeast or nationally (@$750 each) to distribute and promote the Business Case document. The SALCC grant will cover attendance at scientific meetings to present the research results.
E. The Travel support requested would provide for 12 trips around the Southeast, 600 miles each (@$0.36/mile) plus hotel costs (@$450 each).
F. The Education and Outreach Budget includes $2000 for improving the layout of the report, $2000 for printing ~1000 copies of the report, $500 for additional landowner handouts, $500 for postage for delivery of documents to partners and landowners, and $10,000 for a contractor's time to perform the outreach. An additional $3000 in Wildlands donor/additional grant match would cover the creation of a visually-appealing map presenting the connectivity results for the target region.
G. The Communications support requested would include $1000 for website development for Wildlands Network, and $1000 for social media outreach work.

SFI Inc. Conservation & Community Partnerships Grant Program
Grant Application

Lead Organization Name and Address	Wildlife Management Institute 4426 VT Rt. 215N Cabot, VT 05647
Name, phone and email for Project Director	Scot Williamson 802-563-2087 wmisw@together.net
Lead Organizational Mission Statement (25 words or less)	Founded in 1911, WMI is a private, nonprofit, scientific and educational organization, dedicated to the conservation, enhancement and professional management of North America's wildlife and other natural resources.
Lead Organization Annual Operating Budget	$3,200,000.
Two references (Name, Organization, email and phone) who can speak to the potential of the Project (these should not be the same as your Project partners):	Tom Cooper, USFWS tom_cooper@fws.gov 612-713-5338 Mike Reynolds, Mike.Reynolds@dnr.state.oh.us 614-265-6744

Project Overview

Confirmed Project Partners (list organization name only)*	**Project Title**	**Amount Requested**	**Total Project Budget**	**Brief Project Summary (50 words or less)**	**What element(s) of the SFI 2010-2014 Program does/do your Project address (Please cite the Standard Component(s))**
Lyme Adirondack Forest Co., LLC Glatfelter Wood Pulp Co. Pennsylvania SFI SIC Ohio Forestry Assoc.	Young Forest Technical Assistance and Outreach Project	$50,000	$100,000	WMI will use its network of habitat biologists to visit SIC's in up to 15 Northeast and Midwest states, state SAF Chapters, forestry councils, conduct landowner workshops and meet with individual SFI Program Participants to train and follow-up with participants and suppliers on the wildlife and forestry benefits of maintaining spatially distributed blocks of young forest across management units. Outreach specialists will maintain 3 websites for reference materials.	Objective 4: Performance Measure 4.1 - Indicators 1 & 5.

Project Partners

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Lyme Adirondack Forest Co., LLC	Sean Ross Director of Forestry Operations	sross@lymetimber.com 603-643-3300 Lyme Adirondack Forest Co. 23 S. Main St., 3rd Floor Hanover, NH 03755	Sean Ross, Director of Forestry Operations for The Lyme Timber Company. · Graduated from UVM with a degree in Forest Resource management in 1997. · Licensed NH Forester · Practicing forester in the northeast for 15 years The Lyme Timber Company LP – parent company of Lyme Adirondack · Timberland investment firm Founded in 1976 · Recognized leader in sustainable forest management and is committed to practice high-quality forest stewardship with particular attention to conserving soil, water and wildlife resources. · Lyme received the Adirondack Stewardship Award/Landowner of the Year from the Adirondack Landowners Association in 2007, the Environmental Excellence Award from the NY State Department of Environmental Conservation in 2006 and the Sustainable Forestry Award from the Adirondack Council in 2007. · Partner and demonstration area Northern Woodcock and Northern Young Forest initiatives.
Glatfelter Pulp Wood Company	David A. Nelson Logistics and Certification Manager	dnelson@glatfelter.com 717-891-2509 Glatfelter Pulp Wood Company 228 South Main Street Spring Grove, PA 17362	Glatfelter is a global leader in the manufacture of specialty papers and engineered products for such diverse markets as tea bags, greeting cards, digital printing, feminine hygiene, carbonless paper, and industrial and commercial printing papers. Based in York, Pa., Glatfelter operates two pulp and paper mills in North America and actively manages company-owned woodlands as well as working cooperatively with private and public landowners for sustainable forestry. Other manufacturing locations are in Europe, Canada, and the Philippines. The company is publicly traded on the New York Stock Exchange as GLT.

Confirmed Project Partners (list organization name only)*	Primary Contact Name & Title	Complete Contact Information (Email, Phone Number, Mailing Address)	Brief Summary of Individual and Organizations Qualifications and Experience (150 words or less)
Pennsylvania SFI SIC	Charles Brown Chairman	Charles.Brown@glatfelter.com 717-225-4711 Pennsylvania SFI SIC 228 South Main Street Spring Grove, PA 17362	PA SFI SIC is the primary outreach organization for logger training in Pennsylvania. Landowner and public outreach is also a primary objective as specified in Objective 8 of the SFI Standard. The PA SFI SIC represents a wide range of stakeholders within PA as Program Participants, Supporters and Partners.
Ohio Forestry Association	John Dorka Executive Director	john@ohioforest.org 614-497-9580 Ohio Forestry Association, Inc. 1100-H Brandywine Blvd., Zanesville, OH 43701	John Dorka has 30+ years working in the field of Forestry. Prior to becoming OFA's Executive Director, John was Chief of the Ohio Division of Forestry. The Ohio Forestry Association supports the management of Ohio's forest resources and improvement of business conditions for the benefits of its members in their endeavors to engage in forestry-related industries and enterprises. It is an independent organization, operating not-for-profit and chartered to promote the general welfare of the people and private enterprise of the state of Ohio.

Project Details

Narrative

Society in general has been transformed since the 1970's to accept and embrace the critical contributions made by wetlands, old growth forests, and native grasslands to the nation's biodiversity. That was not always the case: those habitats were under-appreciated by the public only decades prior and witnessing steep declines. Now that those habitats are rebounding, there is a critical need to effect a similar transformation of public attitudes towards the one remaining habitat type not yet viewed as critical to the health of wildlife: **young forest.**

A recent assessment identified over 65 species in decline due to losses of young forest habitat. Included in that list are important game birds like American Woodcock and Ruffed Grouse and priority species like Golden-Winged Warbler and New England Cottontail. There is strong agreement in the scientific community that losses of young forest are negatively impacting biodiversity, via published studies or policy proclamations from the US Forest Service, US Fish and Wildlife Service, Natural Resource Conservation Service, Audubon Society, American Bird Conservancy, several Migratory Bird Joint Ventures, and state fish and wildlife agencies.

The Wildlife Management Institute has created a partnership to advance the restoration of young forest habitats. The approach of the Partnership is to position highly experienced, highly networked habitat biologists into areas with high potential for habitat improvement. Habitat biologists provide technical assistance to private and public landowners and land managers on techniques to improve young forest habitat. Biologists build partnerships with state and federal land management agencies, other working farm and working forest interest groups, and other technical assistance providers. One key outcome of a habitat biologist is the development of young forest demonstration areas – places where the public can see habitat improvement practices on the ground, and witness the response of wildlife to the improvement of their young forest habitat.

WMI currently contracts with 28 habitat biologists positioned to advance habitat restoration in 17 states. Their work focuses on American Woodcock, Golden-winged Warbler, and New England Cottontail – species that are recognized as representative of the guild of over 65 species reliant upon young forest habitats. Within the 17-states in the project area, 17 state fish and wildlife agencies; five state forestry agencies; five USFWS Partners for Fish and Wildlife State Programs; seven state NRCS offices; seven National Forests, as well as numerous private landowners are active partners with WMI in getting this work accomplished.

This is a mature initiative that is highly effective and efficient in getting early successional habitat on the ground. Each habitat biologist utilizes a program of work that takes advantage of lessons learned in previous phases:

1. Utilize Woodcock Habitat Best Management Practices (BMPs)
2. Utilize the newly created Best Management Practices for GWWA in the Appalachians and in Minelands
3. Implementation of the New England Cottontail Conservation Strategy in identified focus areas across 6 states
4. Identify priority regions within Bird Conservation Region boundaries where the need for shrubland restoration and conservation is highest
5. Feature Woodcock and GWWA BMPs on Habitat Demonstration Areas
6. Monitor the response of featured species to implementation of BMPs.
7. Increase acreage of private and public land featuring early successional habitat through focused outreach, communications, training and technical assistance programs.
8. Monitor accomplishments for both habitat and population response.

Supporting the habitat biologist is an extensive marketing and communications team. A marketing and communication plan was developed in 2009 through focus group testing, key message development, and identification of preferred delivery systems. In response, print publications detailing habitat best management practices and explaining the importance of young forest habitat are available. WMI has developed three websites: www.timberdoodle.org, www.newenglandcottontail.org, and www.youngforest.org. All are active and satisfying the public's curiosity about the benefits and management of young forests for a range of species. Renowned science writer Charles Fergus produces articles in popular publications that reach the general public and private landowners. Marketing specialists concentrate efforts on key focus areas to increase interest and demand by private landowners for technical assistance from habitat biologists.

In addition, WMI has developed a comprehensive database to track accomplishments for multiple species across the range of the partnership. This database is currently being populated with historic data and will serve as a valuable tool in monitoring success of these conservation efforts. Specific quantified metrics used to evaluate the success of these efforts include:

1. The number of acres restored, planned or treated for which the primary of secondary benefit accrues early successional species.
2. The distribution of treatments by focal area or region.
3. The number of new management agreements with private landowners.
4. The number of landowners contacted, workshops held, and professionals trained. Follow up surveys will allow detailed analysis of strengths and weaknesses of techniques used, messages delivered and media products employed.
5. The number and location of monitoring activities for early successional species.

The partnership, critical for the early success of the initiative, continues to grow. State and federal agencies, NGOs, and citizens are increasingly requesting information on early successional habitat, and increasingly managing for young forest on their lands. The Partnership has received two national awards: the 2009 Secretary of Interior's Cooperative Conservation Award and the 2012 USDA's Two Chief's Award, and has been prominently featured in state and regional conservation publications.

As demand for services increases, the Partnership is capable of adding additional capacity to deliver services. SFI Program Participants manage thousands of acres of land across the region of our initiative. They are in the business of cutting wood in a sustainable manner. As such, working closely with those participants represents a tremendous growth opportunity for the Partnership, and a great opportunity for SFI Program Participants to forge a mutually beneficial relationship with highly trained habitat biologists for managing young forest.

Project Goals	Activities	Tangible Outcomes	Measure Success	Grant Funds	In-Kind or Matching Funds
Goal 1:Training at SIC's, SAF Chapters, forestry councils, landowner workshops and individual SFI Program Participants	Habitat biologists will prepare and deliver targeted materials to SFI Program Participants on the benefits of creating and maintaining young forest habitat across the 17 state range of our initiative	SIC participants will better understand the forestry and wildlife benefits of young forest and how to plan well distributed young forest habitat blocks	Number of presentations given (up to 15 SIC anticipated, depending on interest at SIC level, as many Chapter, council workshop and individual meetings as can be conducted)	$20,000	$25,000
Goal 2:Follow-up with participants as needed	Habitat biologists will be available to provide on-the-ground technical assistance to SFI Program Participants	SFI Program Participants will receive implementation guidance in timing and layout of young forest habitat patches	# Acres assessed for young forest management (Anticipate assessing upwards of 20,000 acres) # Acres treated to create young forest (Anticipate treating upwards of 1,000 acres)	$15,000	$15,000
Goal 3: Maintain and update websites	Communications specialists will maintain and update 3 young forest related websites, including "snapshots" of work done under this grant	SFI Program Participants will have access to high quality outreach materials on young forest management, non-SFI viewers of the websites will see the ongoing work of Program Participants	Up-to-date websites: Youngforest.org Timberdoodle.org Newenglandcottontail.org	$5,000	
Goal 4: Poster Presentation at SFI Annual Conference and necessary travel	Habitat biologist(s) will attend 1 SFI Annual Conference to present a poster on young forest management	SFI Program Participants will have the opportunity to learn and discuss young forest management with highly trained biologists	Conference attendance	$5,000	
Goal 5: Administration	Efficiently administer payment of invoices for time, materials and travel	Efficiently administered project, reports prepared and submitted	Activities and reports completed in a timely manner.	$5,000	$10,000

Project Timeline

Project will be completed over the course of 24 months from 5/1/13 - 4/30/15.

Project Budget

Expenditure	**Amount**	**Matching Funds***	**In-Kind Contributions***
Biologists Time - Approx. 7% will be spent by each habitat biologist working on the project.	$35,000		$40,000
Operating Costs			
Outreach & Communications	$5,000		
Travel	$5,000		
Project Administration	$5,000		$10,000
Total	**$50,000**		**$50,000**

* All In-Kind Contributions will be provided by the Wildlife Management Institute

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Scot Williamson, Vice President, as a representative of The Wildlife Management Institute, Incorporated and a Partner in Young Forest Technical Assistance and Outreach Project, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by The Wildlife Management Institute, Incorporated to sign this agreement.

Signed:

Scot Williamson
Name

Vice President
Title

The Wildlife Management Institute, Incorporated
Organization

3/1/13
Date

SUSTAINABLE FORESTRY INITIATIVE

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, David A. Nelson, as a representative of Glatfelter and a Partner in The Young Forest Technical Assistance & Outreach Project, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Glatfelter to sign this agreement.

Signed:

David Nelson

Logistics & Compliance Mgr.

Glatfelter Pulp Wood Company

3/12/2013

Date 3/12/13

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, Charles Brown, as a representative of PA SFI SIC and a Partner in The Young Forest Technical Assistance & Outreach Project, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by PA SFI SIC to sign this agreement.

Signed:

Charles Brown

Chairman

PA SFI SIC

Date 3/12/13

SUSTAINABLE FORESTRY INITIATIVE

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SFI Inc. Conservation and Community Grant Program
Agreement to Public Communications

I, John Dorka, as a representative of Ohio Forestry Association (Organization Name) and a Partner in Young Forest Technical Assistance and Outreach Project, hereby give the Sustainable Forestry Initiative® (SFI), Inc. permission to use my name, the organization name as written above, and any other information about the Project in public communications regarding the Project.

I understand that public communications include, but are not limited to:

- Press releases and announcements regarding the SFI® Inc. Conservation and Community Partnerships Grant Program.
- Public presentations, fact sheets, briefing notes and other communication materials that highlight successful Projects and the SFI Inc. Conservation and Community Partnerships Grant Program.
- Use of the Organization logo on the SFI Inc. website, on news releases or other materials.
- Other materials as appropriate.

SFI Inc. will not attribute quotes or opinions to my organization without permission.

With my signature below, I attest that, to the best of my knowledge, the information provided in this application is true and accurate, and I am authorized by Ohio Forestry Association to sign this agreement.

Signed: John Dorka

John Dorka
Name

Executive Director
Title

Ohio Forestry Association
Organization

3/14/13
Date