

## **Appendix 8**

### **Research Supported by the Sustainable Forestry Initiative**

Research requirements

Investment in research

Addendum: SFI standards related to research

The Sustainable Forestry Initiative, Inc. (SFI®) is an independent, non-profit organization dedicated to promoting forest sustainability and supporting the links between sustainable forests and communities through grant programs, targeted research, leadership of critical initiatives, and partnerships that effectively contribute to multiple conservation objectives.

SFI's three main certification standards—Forest Management, Fiber Sourcing, and Chain of Custody—are intended to ensure the health and future of forests. SFI's on-product labels identify products from SFI-certified forests and thus help consumers make responsible purchasing decisions. SFI Inc. is governed by an independent, three-chamber board of directors representing environmental, social, and economic sectors equally. Organizations certified to the SFI standards, known as SFI program participants, range from state and county agencies to timber investment management organizations (TIMOs), real estate investment trusts (REITs), manufacturers, conservation organizations, and indigenous groups.

The SFI program was launched in 1994 as one of the U.S. forest sector's contributions to sustainable development as envisioned by the 1992 United Nations Conference on Environment and Development. Its original principles and implementation guidelines, adopted in 1995, evolved into the first SFI national standard backed by third-party audits in 1998. Forests certified to the SFI Forest Management Standard now cover more than 280 million acres (113 million hectares) in the United States and Canada, and the certifications are endorsed by the Programme

for the Endorsement of Forest Certification. Millions more acres comply with the SFI Fiber Sourcing Standard.

## **Research requirements**

Support for research has been a central part of the SFI program since its inception. Continuous improvement was a foundational concept for the development of the SFI standards, and research was recognized as an essential component.

SFI's first implementation standards and guidelines, issued in 1995, included numerous references to research as elements of other requirements. The 2005–2009 SFI standards consolidated all the research requirements into a new, dedicated research objective and defined five eligible research categories.

*Forest health and productivity:* forest health, productivity, and ecosystem functions; and chemical efficiency, use rate, and integrated pest management.

*Water quality:* water quality and/or effectiveness of best management practices, including effectiveness of water quality and best management practices for protecting the quality, diversity, and distributions of fish and wildlife habitats.

*Wildlife and fish wildlife:* management at stand and landscape levels.

*Landscape/ecosystem management and biodiversity:* conservation of biological diversity; ecological impacts of bioenergy feedstock removals on productivity, wildlife habitat, water quality, and other ecosystem functions; and climate change research for both adaptation and mitigation.

*All other:* forest operations efficiencies and economics; energy efficiency; life-cycle assessment; avoidance of illegal logging; avoidance of controversial sources; and other.

Appendix 1 presents the research requirements in the 2015–2019 SFI standards.

## **Investment in research**

In addition to promoting research through its standards, SFI invests in research directly through its Conservation and Community Partnership Grants Program. This competitive grant program has contributed approximately \$3 million since it began in 2010, leveraging partner contributions for a total of approximately \$9.5 million. Grant program guidelines currently focus on enumerating conservation-related values accruing from SFI’s forest certification work. By quantifying these values, or “conservation impact,” SFI seeks to clarify forestry’s contributions to critical conservation outcomes for water, climate change, and biodiversity.

Investments in research by SFI program participants have been tracked since the initiation of the research requirements. Figures 1–3 show these investments for 2007 to 2015, the period during which SFI has existed as an independent nonprofit organization. Additional details for much of this information are available on request.

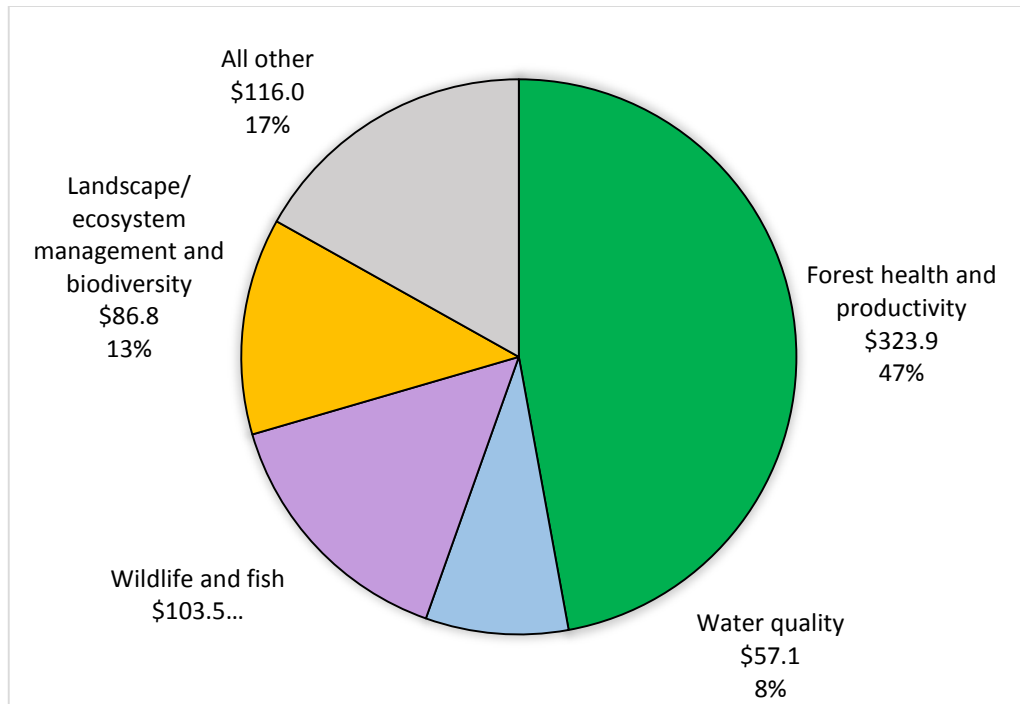
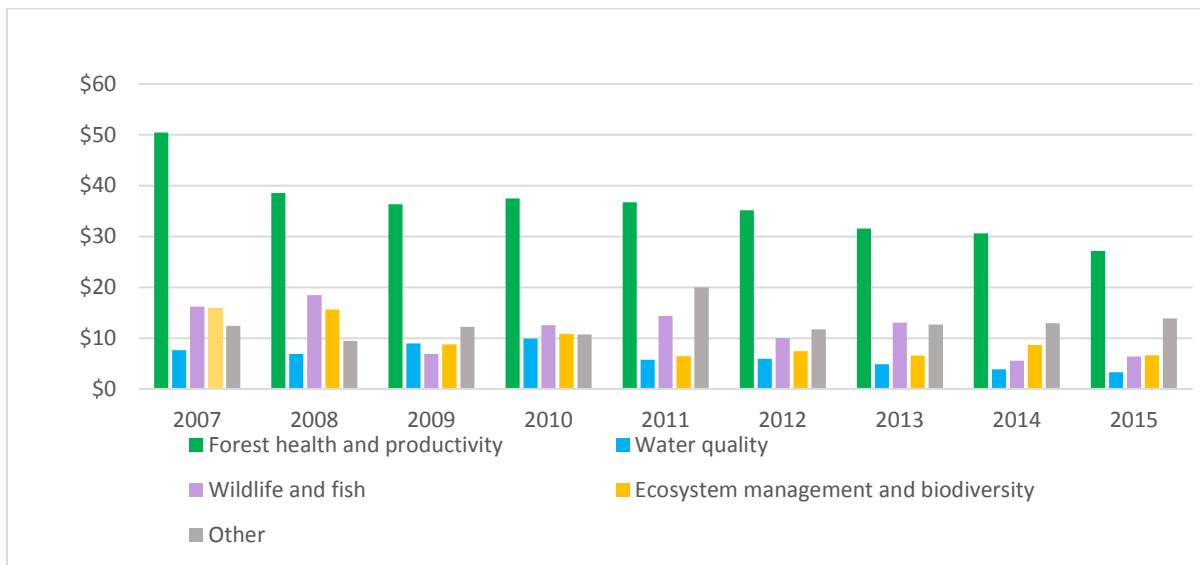


Figure 1. SFI total research funding, by program (million dollars), 2007–2015

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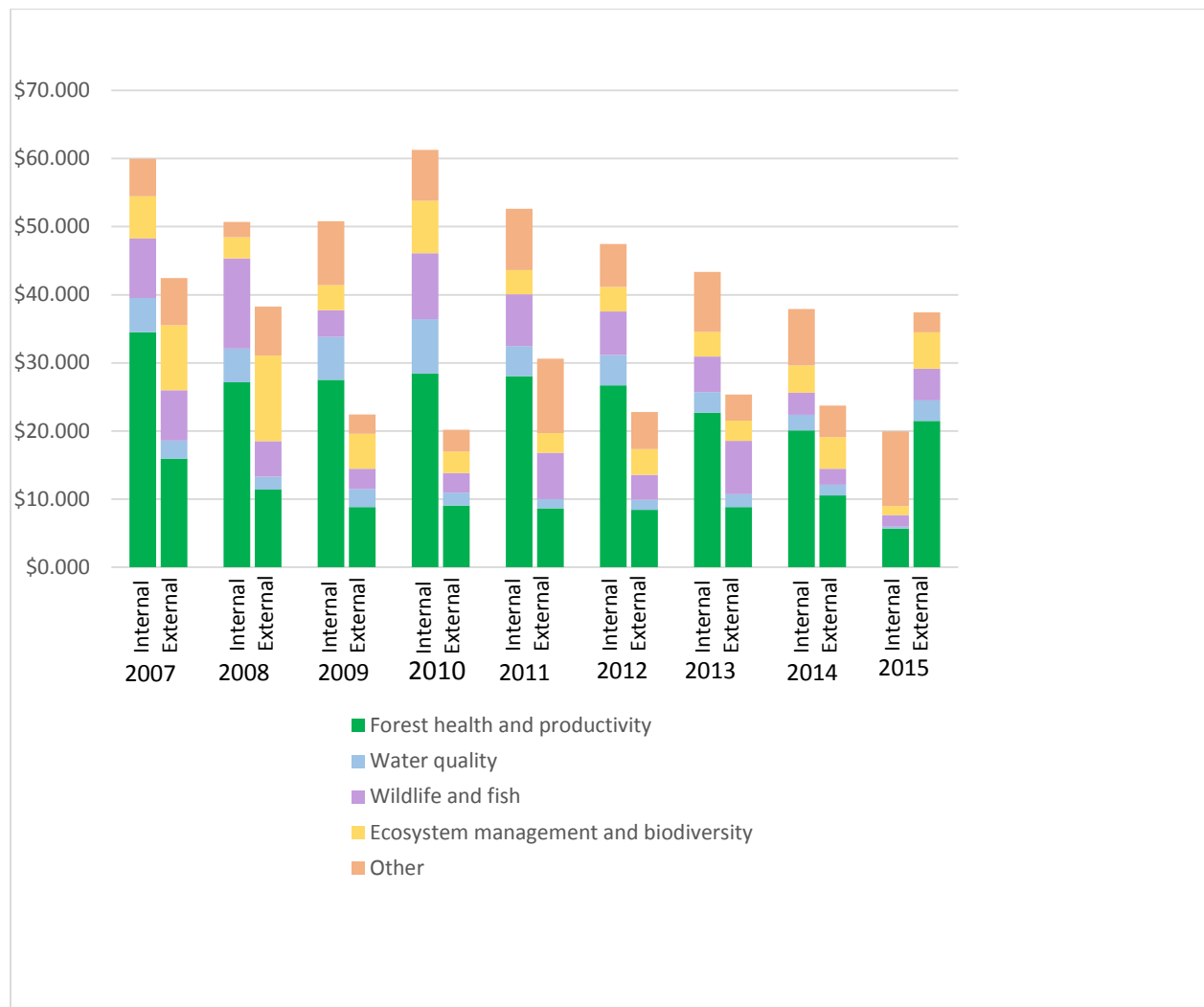
**Figure 2. Total research funding reported by SFI program participants (million dollars), 2007–2015**



**Figure 3. Trends in SFI program participants' research funding (million dollars), by category, 2007–2015**

Anecdotal evidence indicates that new SFI program participants, particularly small and medium-sized companies, are supporting or engaging in research for the first time. Some have joined the National Council for Air and Stream Improvement, which has a research program, to help meet the requirements. Others support university research programs via direct or in-kind contributions.

Figure 4 shows, in aggregate, how program participants allocate their research dollars. SFI-certified organizations have generally invested more in forest-related research on their own lands using their own employees and operating funds (internal funding) than they have contributed in cash to SFI for the initiative’s competitive grants program that funds research by universities, trade groups, and other parties (external funding), but in 2015 the total external amount exceeded that spent on internal programs.



**Figure 4. Trends in SFI program participants’ research funding (million dollars), 2007–2015**

Note: “Internal funding” is defined as defined as “forest related research taking place within your organization”; “external funding” is defined as funding for research taking place “outside your organization.”

SFI remains the only forest certification standard in the world that requires participants to support forestry research to improve forest health, productivity, and sustainability.

— Paul Trianosky, Chief Conservation Officer

Sustainable Forestry Initiative, Inc.

### **Addendum: SFI standards related to research**

The SFI Program 2015–2019 Certification Standards and Rules include numerous mentions of research, from a reference to the importance of research in the principles to the inclusion of research as a performance requirement in the objectives. References to research in the standards are excerpted below. The [full set of SFI Program certification standards can be accessed online](#) or through the SFI website, [www.sfiprogram.org](http://www.sfiprogram.org).

#### **SFI Forest Management Principles**

- Principle 9. Research - To support advances in sustainable forest management through *forestry* research, science and technology.

#### **SFI Forest Management Objectives**

- Objective 10. Forestry Research, Science and Technology - To invest in forestry research, science and technology, upon which sustainable forest management decisions are based and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.

#### **SFI Forest Management Performance Measures and Indicators**

**Performance Measure 2.5.** *Program Participants* that deploy *improved planting stock*, including *varietal seedlings*, shall use best scientific methods.

Indicator:

1. *Program* for appropriate research, testing, evaluation and deployment of *improved planting stock*, including *varietal seedlings*.

**Performance Measure 4.4.** *Program Participants* shall apply knowledge gained through research, science, technology and field experience to manage *wildlife habitat* and contribute to the *conservation of biological diversity*.

Indicators:

1. Collection of information on *Forests with Exceptional Conservation Value* and other *biodiversity*-related data through *forest inventory* processes, mapping or participation in external *programs*, such as NatureServe, state or provincial heritage *programs*, or other credible systems. Such participation may include providing non-proprietary scientific information, time and assistance by staff, or in-kind or direct financial support.
2. A methodology to incorporate research results and field applications of *biodiversity* and ecosystem research into forest management decisions.

**Performance Measure 10.1.** *Program Participants* shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners provide in-kind support or funding for forest research to improve *forest health, productivity* and sustainable management of forest resources, and the environmental benefits and performance of forest products.

Indicators:

1. Financial or in-kind support of research to address questions of relevance in the region of operations. Examples could include, but are not limited to, areas of forest *productivity*, water quality, biodiversity, community issues, or similar areas which build broader understanding of the benefits and impacts of forest management.

2. Research on genetically engineered trees via *forest tree biotechnology* shall adhere to all applicable federal, state, and provincial regulations and international protocols ratified by the United States and/or Canada depending on jurisdiction of management.

### **SFI Fiber Sourcing Principles**

- Principle 9. Research - To support advances in sustainable forest management through forestry research, science and technology.

### **SFI Fiber Sourcing Objectives**

- Objective 5. Forestry Research, Science and Technology - To invest in forestry research, science and technology, upon which sustainable forest management decisions are based and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.

### **SFI Fiber Sourcing Performance Measures and Indicators**

**Performance Measure 5.1.** *Program Participants* shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners provide in-kind support or funding for forest research to improve *forest health, productivity*, and sustainable management of forest resources, and the environmental benefits and performance of forest products.

#### Indicators:

1. Financial or in-kind support of research to address questions of relevance in the region of operations. Examples could include, but are not limited to areas of forest *productivity*, water quality, biodiversity, community issues, or similar areas which build broader understanding of the benefits and impacts of forest management.
2. Research on genetically engineered trees via *forest tree biotechnology* shall adhere to all applicable federal, state, and provincial regulations and international protocols ratified by the U.S. or Canada depending on jurisdiction of management.



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Year	Forest health and productivity	Forest health and productivity	Water quality	Water quality	Wildlife and fish	Wildlife and fish	Ecosystem management and biodiversity	Ecosystem management and biodiversity	Other	Other	
	Internal	External	Internal	External	Internal	External	Internal	External	Internal	External	
2007	\$34.491		\$5.022		\$8.757		\$6.220		\$5.484		
2007		\$15.953		\$2.626		\$7.419		\$9.510		\$6.936	
2008	\$27.155		\$4.929		\$13.271		\$3.076		\$2.278		
2008		\$11.374		\$1.932		\$5.193		\$12.575		\$7.178	
2009	\$27.523		\$6.270		\$3.922		\$3.698		\$9.369		
2009		\$8.827		\$2.678		\$2.966		\$5.105		\$2.844	
2010	\$28.395		\$8.008		\$9.686		\$7.687		\$7.485		
2010		\$9.069		\$1.870		\$2.864		\$3.150		\$3.211	
2011	\$28.053		\$4.399		\$7.614		\$3.555		\$8.988		
2011		\$8.646		\$1.371		\$6.782		\$2.864		\$10.960	
2012	\$26.703		\$4.440		\$6.382		\$3.627		\$6.317		
2012		\$8.424		\$1.488		\$3.633		\$3.804		\$5.442	
2013	\$22.707		\$2.994		\$5.222		\$3.619		\$8.819		
2013		\$8.830		\$1.883		\$7.824		\$2.969		\$3.845	
2014	\$20.092		\$2.299		\$3.229		\$4.010		\$8.286		
2014		\$10.544		\$1.551		\$2.353		\$4.625		\$4.656	
2015	\$5.661		\$0.276		\$1.727		\$1.305		\$10.958		
2015		\$21.461		\$3.016		\$4.642		\$5.357		\$2.924	

For instructions on creating clustered, stacked column bar charts, please go to:

<http://excelhelphq.com/tutorial-clustered-stacked-column-bar-charts-free>

<http://excelhelphq.com/download-and-modify-the-clustered-stacked-column-bar-chart-template>