



United States  
Department  
Of Agriculture

Forest Service

# Sustainable Operations Accomplishments Report 2011: Western Collective



## Sustainable Operations



### Accomplishments Report 2011: Western Collective

## Executive Summary

This report details the FY11 accomplishments of 13 teams of the Western Collective, a grassroots-based Sustainable Operations effort in the USDA Forest Service. The Western Collective, which began in 2009, consists of people who are committed to the growth of a Sustainable Operations network that crosses both geographic and organizational boundaries and disciplines.

This report:

- Shows how the Western Collective used systems thinking and nature-based ideas to further build the Sustainable Operations program.
- Demonstrates strength in supported enthusiasm. The Western Collective had 65 team members from all levels of the agency, collectively making huge strides toward Sustainable Operations.
- Identifies innovative tools that are being used within the Sustainable Operations community.
- Reveals that Sustainable Operations working with a large diversity of program areas can streamline reporting and minimize duplication.
- Highlights pilot projects that are expanding the limits of sustainability understanding through greenhouse gas emissions tracking, net zero environmental footprinting, greening fire operations, and partnerships.
- Shows how a sustainable future is rooted in increasing the knowledge of employees, partnering with communities and engaging with youth.
- Demonstrates powerful outcomes by integrating research and systems analysis into Sustainable Operations.

*The Western Collective, which began in 2009, consists of people who are committed to the growth of a Sustainable Operations network that crosses both geographic and organizational boundaries and disciplines.*

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## Introduction

The Western Collective started as a grassroots effort within the USDA Forest Service and has grown into a formal structure that supports the agency going further and faster toward reducing the agency's environmental footprint. The group's unique structure cuts across boundaries to connect place-based efforts with national policy and programs. The close tie to national issues has been reflected in some national funding and national-level team participation.

This report documents fiscal year 2011 (FY11) accomplishments from the Western Collective's second year of existence. The formally chartered collaboration of team members in Regions 1, 2, 3, 4, 6 and 10 and the Rocky Mountain Research Station (RMRS) expanded to include Region 5 at the end of the fiscal year. The Western Collective significantly advanced cross-boundary information sharing, circumvented duplication, and fostered shared learning and cooperative leadership.

The goals of the Western Collective in FY11 were:

1. Sustainable Operations Integrated Reporting
2. Pilot Projects to Policy – Going Beyond Recycling and Lights Off
3. Cross-Pollination, Fostering Organizational Connectivity
4. Youth and Community Engagement
5. Creating Sustainability from Stovepipes
6. Greening the Next Generation and Building Capacity
7. Sustainability Science

Under each goal, a team or teams carried out specific work. Practicing adaptive management, those teams reorganized, refocused, and adjusted as needed. For example, the Goal 5 team realized the time was not yet ripe for the proposed work and disbanded; whereas a team called "Element 10" formed under Goal 1 in response to a field-identified need for greater clarity on integrating Sustainable Operations into the Agency's climate change strategy.

*What do we mean by  
'place-based'?*

*Sustainable Operations  
efforts must be planned  
and developed as an  
appropriate response to  
the possibilities and  
limitations of a particular  
place.*

## Continuing to Evolve



*Photo: R5 Deputy Regional Forester, Ron Ketter signs the Western Collective charter during a virtual board meeting and peer-learning session on September 14, 2011. In the background from left to right are: Lara Polansky, Renee Jewel and Tiffany Mattice.*

The Western Collective continues to test and employ innovative approaches to integrate environmental footprint considerations into daily decisions, habits, planning, and operations. A few of the agency-wide tools and policy changes led by the Western Collective include:

- Utility Bill Clean-up Protocol – Helps units correct common utility bill errors. Conservatively, this effort will save Western Collective units \$2 million in annual costs by reducing improper payments.
- Fleet Life Cycle Costing Tool – Helps line officers choose energy efficient vehicles that will reduce carbon dioxide (CO<sub>2</sub>) emissions by 110,000 metric tons over six years and save millions in reduced fuel costs.
- Element 10 of the Climate Change Scorecard – Features a structured approach to place-based focused actions that supports actual footprint reductions and helps implement Federal-wide mandates.
- Template incorporating Sustainable Operations into Line Officer’s Letter of Delegation to Incident Management Teams – Supports a significant cultural shift to a consumption ethic.

The Western Collective built upon previous work, facilitated conversations, and collaborated with Business Operations in the WO to improve data systems that now provide better information to field offices concerning the use of water, electricity, gas and other utilities. Additionally, the Western Collective increased efforts with the WO Engineering Staff to help streamline energy and water data calls.

The Western Collective also became more articulate in the language of nature-based principles with the help of board member Marie Zanowick of the Environmental Protection Agency. The core idea of the design discipline known as biomimicry is sustainable solutions can be found by looking to the natural world. Teams incorporated this language and accompanying strategies into Western Collective products.



## Biomimicry

Biomimicry is an emerging science that takes inspiration from Nature's models, systems, processes, and elements to solve human problems.

In FY11, the Western Collective worked with specialists in biomimicry to discover the sustainable strategies found in our forests and grasslands, and use these ideas to help guide our sustainability decisions. As part of that process, Western Collective team members and board staff learned about biomimicry and the opportunities and solutions that might evolve from looking at natural systems.

They discovered how Nature fosters cooperative relationships and used this strategy to launch the Leaders in Sustainable Operations (LISO) model. By integrating development and growth, the Western Collective has encouraged innovative pilot projects that involve sustainability leaders, while making sure the basic Sustainable Operations message is understood by those just joining the discussion.

The utility bill clean-up is a first step to becoming as resource-efficient as our natural models. Using processes that work so well in Nature, the Western Collective is able to evolve by replicating cross-pollination strategies with the Communication Team.

The strength of this partnership remains in the Western Collective's ability to serve a large portion of the Forest Service while allowing for locally-based solutions to build from the bottom up.

*Leaders emerged from all levels of the agency, organizing workgroups and piloting innovation, reflecting the power behind the group's unique structure.*

## People Power

A total of 65 people across 13 teams and the Board of Directors implemented the FY11 Western Collective work plan. Teams included biologists, researchers, foresters, range scientists, hydrologists, engineers, planners, purchasing agents, line officers, directors and technicians, all working to embed sustainability into daily operations and decision making. Leaders emerged from all levels of the agency, organizing workgroups and piloting innovation, reflecting the power behind the group's unique structure. One of the Western Collective's greatest strengths was—and continues to be—the diversity and enthusiasm of its members.

### Board of Directors

- R1 - Jane Cottrell
- R2 - Maribeth Gustafson
- R3 - Faye Krueger
- R4 - Jerry Perez
- R5 - Ron Ketter
- R6 - Lenise Lago
- R10 - Ruth Monahan
- RMRS - Cloetta Schroeder

**Co-Chair** – Scott Fitzwilliams (R2)

**Co-Chair** – Kevin Riordan (R1)

**District Ranger** – Brent Botts (R2)

**Executive Director** – Anna Jones-Crabtree

**EPA Representative**- Marie Zanolwick

### Partners

**GSA** – General Service Administration

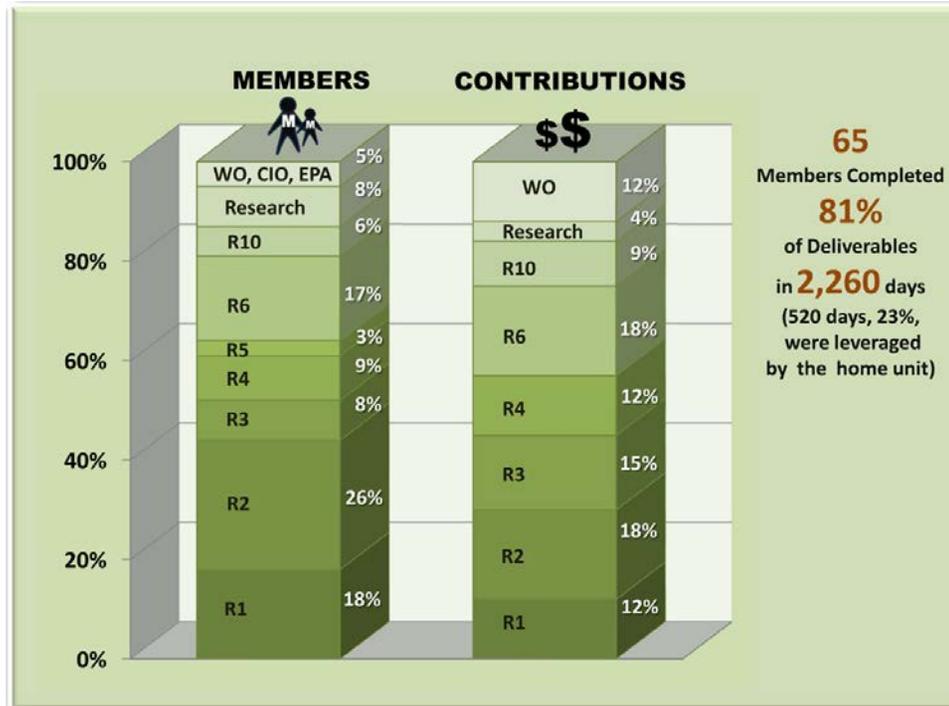
**USDA** – United States Department of Agriculture

**NREL** – National Renewable Energy Administration

**NPS Grand Teton NP** – National Park Service

**GYCC** – The Greater Yellowstone Coordinating Committee

**EPA** – Environmental Protection Agency



# Western Collective Accomplishments For 2011

 **Goal 1:**

## Sustainable Operations Integrated Reporting

Various laws, executive orders, and regulations require reports related to Sustainable Operations, which often results in people repeating work at many levels. These reports include items such as greenhouse gas emissions, energy and water consumption, and steps to improve sustainability. The goal of Sustainable Operations Integrated Reporting is to help units within the Western Collective fulfill reporting requirements efficiently, and to make collected information available to and useful for the field.

### **Team A: Leadership in Sustainable Operations (LISO)**

*Board Member Champion:* Lenise Lago

*Board Staff Champions:* Anna Jones-Crabtree and Sarah Baker

Using the online tool, “Leadership in Sustainable Operations” (LISO), employees will be able to easily access information produced at national levels to help them track and report local progress. The tool will also share success stories about how people have shifted behavior to improve their environmental footprint.

**Team members:** Julie Tucker (co-chair), Sarah Baker (co-chair), Heather Davis, Tim Dedrick, Milton Fusselman, Katie Newcomb, Meghan Oswalt, Michele Parker, Lara Polansky



*Photo: Smokey Bear Ranger District and community outreach create community gardens.*

### Sustainability in Action!

“Smokey’s Garden” started with a 2009 regional micro grant to fund rainwater harvesting for work center buildings on the Smokey Bear Ranger District located on the Lincoln National Forest in New Mexico. With funding from local groups and businesses, the community garden, built in 2010, expanded in 2011 to cover over half an acre.

Community outreach to other community gardens resulted in a loose affiliation of gardens and organizations forming the Lincoln & Otero County Healthy Life Initiative, which is currently seeking a grant through the USDA People’s Garden Grant Program. District employees and their partners continue to use Smokey’s Garden to provide fresh vegetables to the Lincoln County Food Bank, educational programs, and opportunities for children to connect to nature through gardening.

*[My greatest accomplishment in the Western Collective has been] building the FLEET tool! It is amazing to see consumption and business practices join forces to fight low fuel economy and build a sustainable fleet for the Forest Service."*

Heather Davis



**Accomplishments:**

We began development of the LISO self-reporting tool by completing a list of work items that we vetted with national experts. Each work item was designed to help Forest Service units become more resource-efficient, or to raise awareness of resource use. Many work items were also matched with those in the Sustainable Operations Element (Element 10) of the agency's Climate Change Scorecard in order to help with reporting. "Green Points" were assigned to each work item based on difficulty and possible outcomes, and will be used to rate a unit's progress toward becoming more sustainable.

We began the production of the LISO website by developing information, direction and content. We also completed and tested the online database for submitting success stories through the website.

**Next Steps:**

We plan to complete the LISO system (which includes the tool, website and success stories database) by:

- Piloting the system with units early in FY12,
- Finalizing the LISO tool and implementing the website,
- Linking the LISO website to the success stories database, and
- Developing a help desk for people inputting information in the LISO system. This will likely be tied to the existing Element 10 help desk.

We will also identify and put in place a steering committee to manage the LISO system.

## **Team B: Utility Bill Clean-up**

*Board Member Champion:* Lenise Lago

*Board Staff Champions:* Anna Jones-Crabtree and Sarah Baker

Utility bill cleanup focuses on correcting common utility bill errors such as incorrect rates or paying for utilities on buildings we no longer use.

**Team members:** Laurie Yeager (chair); Cherie Coolbear, Jacqueline Emanuel, Dan Golub, Renee Jewell, Corrie Kegel, Patrick Leyba

### **Accomplishments:**

We added the latest utility bill access instructions and a “frequently asked questions” (FAQs) document to our standard operating procedures (SOP). We also produced an informal survey to gauge field participation in the utility bill cleanup effort, and provided training through a national webinar.

### **Next Steps:**

As people begin to use the utility bill cleanup materials, we will learn what needs to be added or clarified. We will add to both the SOP and FAQs as needed.

We also plan to continue conducting webinars to help people with their utility bill cleanup efforts.

*“Greatest achievement on the WC team was to minimize the number of reports being requested at the unit level, which would have caused an overburden.”*

Milton Fusselman

*“What excites me about being part of the Western Collective is being in the cutting edge of innovation, sharing of ideas to improve sustainability, and working with such a great team.”*

Linda Du Lac



## **Team C: Green Procurement**

*Board Member Champion:* Lenise Lago

*Board Staff Champions:* Marie Zanowick and Sarah Baker

**Team members:** Linda Du Lac (chair), Cele Aguirre-Bravo, Dana Bangart, Tamara Draper, Renee Jewell, Meghan Oswalt, Ashley Owens, Lara Polansky, Mark Sajbel, James Winfrey

### **Accomplishments:**

We worked with the General Services Administration (GSA) to conduct a series of webinars on green purchasing. We also produced a webinar on how the Western Collective can assist units in efforts that will result in a “YES” on the green purchasing element of the Climate Change scorecard.

We collaborated with GSA to allow forests, regions and the national office to access the USDA/GSA Advantage online purchasing reports.

Finally, we began the development of an online green purchasing toolkit.

### **Next Steps:**

We plan to complete the green purchasing toolkit and host it on the Sustainable Operations SharePoint site.

We will continue to improve green purchasing efforts by:

- Continuing to provide training webinars.
- Continuing to collaborate with the USDA and other agencies to find opportunities to streamline and improve our ability to procure quality sustainable products.

## **Team D: Accomplishments Report Team**

*Board Member Champion:* Lenise Lago

*Board Staff Champions:* Anna Jones-Crabtree and Sarah Baker

The accomplishments report is a tool to consolidate and celebrate all the work and products of the different teams in the Western Collective. By collecting the achievements of the teams into one document, team members can easily keep track of the vision, what other teams are doing, and how different tasks fit into the whole. This information helps reduce overlap and provide a clear outline for next steps.

**Team members:** Heather Davis (chair), Sarah Baker, Jennifer Bakken, Gretchen Fitzgerald, Meghan Oswald

### **Accomplishments:**

We tracked the progress of all teams and shared information with the Western Collective administration to help ensure timely delivery of products. We also worked with the communications team to provide needed information for their various communications efforts.

We produced the FY11 Accomplishments Report.

### **Next Steps:**

- Develop an interactive template for Western Collective Accomplishment Reporting.
- Continue to facilitate and track progress of teams.
- Produce the FY12 Accomplishments Report.

*“Making 43 smart vehicle right-sizes to the Gallatin NF Fleet that took our average MPG from 14.5 to 19 and saves over 7,000 gallons of gas per year and over \$26,000 in fuel costs each year, based on gas costs of \$3.70 per gallon and the previous vehicle miles of 396,319 per year.”*

Michael Donch

### *What is the Climate Change Performance Scorecard?*

*National Forests and Grasslands use the Climate Change Scorecard to report accomplishments and plans for improvement toward a "YES" answer to ten questions in four dimensions – organizational capacity, engagement, adaptation, and mitigation.*

*The goal is to create a balanced approach to climate change that includes managing forests and grasslands to adapt to changing conditions, mitigating climate change, building partnerships across boundaries, and preparing our employees to understand and apply emerging science.*

For more information visit the Climate Change Advisor's website at:  
<http://www.fs.fed.us/climatechange/advisor/scorecard.html>

### **Element 10 Team**

*Team Champions:* Anna Jones Crabtree and Jacqueline Emanuel

**Team members:** Lara Polansky (co-chair), Katie Newcomb (co-chair), Sarah Baker, Bethany Barron, Bill Dauer, Heather Davis, Linda Du Lac, Jacqueline Emanuel, Daniel Golub, Becky Hutchins, Sarah Kuiken, Lisa Machnik, Joni Packard, Michele Parker, Julie Tucker, Mark Wiersma

#### **Accomplishments:**

We developed a structured approach to including place-based Sustainable Operations actions into an agency-wide Climate Change Strategy. After developing 'Element 10' of the Climate Change Scorecard, we worked to continuously improve the guidance by:

- Clarifying action items.
- Responding to suggestions and ideas from the field.
- Aligning with national reporting requirements from other staff areas, particularly engineering.
- Developing a document of Frequently Asked Questions (FAQs).

We also created an Element 10-High Performance Sustainable Buildings Assessment crosswalk document that helps units recognize areas of overlap between data calls.

Finally, we communicated with regional and Unit climate change coordinators across the nation to provide tools and answer questions concerning Element 10.

**Next Steps:**

We plan to continue improving the ability for units to "Get to YES" on Element 10 by:

- Updating FAQs as questions arise.
- Developing a Sustainable Operations peer learning series in cooperation with the Western Collective implementation team.
- Reviewing Element 10 reports to identify areas that need more support and guidance.
- Consolidating a list of in-person and virtual Sustainable Operations training opportunities.
- Composing a "model" Element 10 narrative to clarify the level of detail and quantification desired in Narrative Form Scorecard reporting.
- Developing a set of FY12 - FY15 implementation plans as suggestions for how units may gradually work towards "YES" on Element 10.

*"My greatest accomplishment has been collaborating with a team of Regional and technical experts to author the Climate Change Performance Scorecard Element 10 (Sustainable Operations) Core Guidance and Appendix G. It's exciting to know that we provided the foundation for integrating Sustainable Operations into Forest-level programs of work!"*

Lara Polansky





*Photo: San Juan National Forest provided habitat, called xeriscaping, for pollinators and birds.*

### **Sustainability in Action!**

The San Juan National Forest tore out the lawns and planted shrubs and perennial flowers to reduce water use and provide habitat for pollinators and birds, all of which is commonly known as xeriscaping.

A local landscaper designed a plan and ordered the plants from local nurseries. Forest employees helped with planting and mulching. The town of Pagosa Springs, Colorado, partnered on the project and paid 50% of the cost for each tree.

In addition, sustainability micro-grants helped to pay for the xeriscaping. The forest has xeriscaped three offices and two employee houses resulting in a reduction of thousands of gallons of water used each summer.

## **Goal 2:**

### **Pilot Projects to Policy – Going Beyond Recycling and Lights Off**

Pilot projects play an important role in our Sustainable Operations efforts. They allow us to try new ideas and learn from mistakes, they identify barriers or challenges, and they provide a foundation to build strategies for large-scale policies. This goal included:

- Continuing key pilot projects,
- Starting new pilots where strategically needed,
- Identifying tools and other ways to assist pilots, and
- Sharing lessons learned in a timely and effective manner.

#### **Team A: Growing GHG Efforts Team**

*Board Member Champion:* Jane Cottrell

*Board Staff Champions:* Anna Jones-Crabtree and Michele Parker

Our objective was to build off of lessons learned from greenhouse gas (GHG) inventory work in the Greater Yellowstone Area and on the Tongass National Forest by piloting several GHG inventorying, tracking and reporting systems and identifying how they could be tailored to various places and scales. We used tools and protocols developed under an agreement with the National Renewable Energy Lab (NREL). Once the piloting portion of the project is complete, we plan to build a toolkit/cookbook that will enable people to track progress and prioritize future GHG reduction actions.

**Team members:** Birdie Carpenter (NREL), Anna Jones-Crabtree, Mike Fiebig (Chair until June 2011), Eliza Hotchkiss, (NREL), Alicen Kandt, (NREL), Karin Lovgren, Megan Oswalt, Lara Polansky, Michele Parker, Margaret Wilson (NPS)

**Accomplishments:**

With support from the Western Collective staff, the Greater Yellowstone Units (two national parks, six national forests, and two Fish and Wildlife refuges) :completed a GHG action plan that other teams can use as a guide. <http://fedgycc.org/SOSGHG.htm>

We worked with NREL to select three potential GHG tracking tools, which will be used in the pilot program. We also developed evaluation criteria for assessing the success of the tracking tools used during the pilot.

**Next Steps:**

We will pilot two to four GHG projects across the Western Collective with technical assistance from NREL. For all three tools, the pilot program will include:

- Six-week data collection,
- Web-based training, and
- Data input into the tools.

We will document the successes and challenges experienced through the pilot effort. From this work, we will determine which GHG inventory tracking tool works best for the various environments across the agency.

We will develop a “cookbook” for GHG tracking and monitoring. We will also develop training, which we will coordinate with the LISO and Element 10 teams.

Finally, we will coordinate with the national Sustainable Operations group to incorporate lessons learned and tools into the national guides for inventorying GHG.



*Video: Greater Yellowstone Coordinating Committee-Sustainable Operations Subcommittee - YouTube*  
<http://www.youtube.com/watch?v=wTnMalk9cXI&feature=youtu.be>

*"My greatest accomplishment has been synthesizing; a process which was driven by the net zero energy guide project. This project has allowed me to talk to experts in different fields who have been engaged energy efficient projects; sharing their successes and lessons learned is an important tool for others looking to change how their unit uses energy."*

Erica Lindgren



## **Team B: Getting to Zero Guides and Big Makeover**

*Board Member Champion:* Faye Krueger

*Board Staff Champions:* Anna Jones-Crabtree and Marie Zanowick

The objective of this team was to develop guides for Forest Service units to use to reduce consumption and waste, and get closer to net zero. The net zero guides will serve as a tool to assist the Forest Service in achieving goals from recent Executive Orders related to sustainability and to help forests say "YES" on Element 10 of the Climate Change Scorecard. Each guide will include direction and ideas on how to:

- Build a team of individuals to shift one or more of the footprint areas within a unit to a more sustainable state,
- Create a baseline of the environmental footprint for the resource,
- Reduce resource demand through behavior changes and technological fixes,
- Improve resource use efficiency, and
- Determine which systems changes are feasible for a unit.

The guides are intended to offer basic information and tools along with the best resources available to move from idea to project implementation.

**Team members:** Katie Newcomb (co-chair), Heather Davis (co-chair), Steve Bugni, Gretchen Fitzgerald, Ashton Hargrave, Corrie Kegel, Erica Lindgren, Jamey Lowdermilk, Michelle Putz

**Partners:** Marie Zanowick, EPA; Virginia Till, EPA; Heidi Bigler-Cole PhD, Independent Resources

**Accomplishments:**

We drafted and field-tested net zero guides on the following footprint areas:

- Water
- Energy
- Fleet
- Waste prevention/recycling

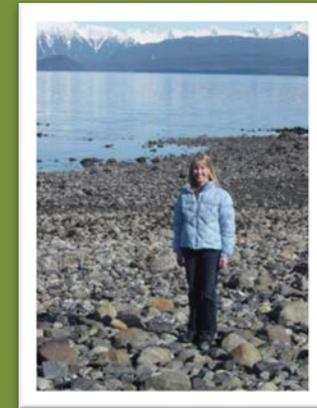
We also focused on inspiring people to improve their environmental footprint. We partnered with others, such as the EPA, and incorporated a variety of cultural transformation tools such as systems thinking, biomimicry language and social science to begin to understand what causes people to make changes in their behavior.

**Next Steps:**

- We will incorporate examples of biomimicry and systems thinking into the guides.
- We will complete and publish the guides.
- We will provide training on the guides through the Sustainable Operations network.
- We will work with forests that are striving to reach net zero and hope to provide grants to support their efforts.

*"It is wonderful to work with such a passionate, innovative and hard working group on something that I believe in."*

Michele Parker



## Sustainability in Action!

The Western Collective Regional Foresters are helping to green fire operations and other incident responses.

In the summer of 2011, the Greening Fire team worked with six Regional Foresters and a Station Director to develop a leadership-backed delegation of authority template for incident management that includes language about Sustainable Operations.

This letter gives the unit hosting the Incident Management Team the ability to help improve recycling, green purchasing, and emphasis on resource conservation in fire camps or other centers for incident responses.



## Team C: Greening Fire

*Board Member Champion:* Faye Krueger

*Board Staff Champions:* Anna Jones-Crabtree and Joni Packard

**Team members:** Jennifer Letz (chair), Frank Castillo, Deanna Crawford, Heather Davis, Thomas Fuchtman, Ashton Hargrave, Christopher Howells, Meghan Oswalt, Kelly Stover, Deidre Witsen

### Accomplishments:

Greening Fire distributed an official correspondence to line officers highlighting the importance of supporting Sustainable Operations efforts during incidents on their units. The letter offered sample language that could be inserted into delegations of authority or other supporting documents and shared with visiting Incident Management Teams (IMT).

We presented at local and national IMT meetings. These presentations allowed the team to share our sustainable projects and increase our visibility in the fire community.

We created a shared email account [greeningfire@fs.fed.us](mailto:greeningfire@fs.fed.us) to improve communication with the fire community.

Finally, "[Fire Management Today](#)" published a feature article about Greening Fires' efforts to improve sustainability at fire camps.

### Next Steps:

In 2012, Greening Fire is partnering with the Wildland Fire Apprenticeship Program to inspire the next generation of fire leadership to think sustainably. Greening Fire will also distribute a regional recycling spreadsheet to help consolidate information about recycling resources in one document. Dispatch centers will identify local resources on the form and share it with visiting Incident Management Teams to help expedite recycling efforts at fire camps.

## **Team D: Partnership Assistance Kit for Pilot Projects**

*Board Member Champion:* Jane Cottrell

*Board Staff Champion:* Lisa Machnik

During FY11, the team's objective was to focus on providing information and resources to establish and maintain partnerships at the local level. Recognizing there isn't a one-size-fits-all approach for collaboration with the Forest Service, we wanted to develop and compile information both to inspire units to explore Sustainable Operations partnerships, and to understand our authorities in which to do so.

**Team members:** Sarah Kuiken (chair), Elizabeth Ballard, Julie Molzahn, Michele Putz

### **Accomplishments:**

We met with several Western Collective teams individually to identify common needs around partnerships and in turn, determine ways to meet those needs.

We organized and hosted a Sustainable Operations "open mic" on partnerships and grants & agreements. Knowledge experts presented how-to information and gave examples of existing partnerships. The session was well attended and the transcript is available at <http://www.fs.fed.us/sustainableoperations/communications-openmicnotes-archive.shtml>.

*"My greatest accomplishment has been to be able to participate as a liaison between the Chief Information Office (CIO) and the Western Collective. As a liaison, I have helped incorporate new communication applications and joined efforts to improve sustainable practices within the FS."*

Jessica Medina



*"I love collaborating with other people across the country who are passionate about sustainability and with whom I otherwise would not get to work."*

Jennifer Kane



Elizabeth Ballard



We compiled a list of potential Sustainable Operations partnerships including proposed projects and mutual benefits for units to consider and pursue at the local level.

We collaborated with the National Partnership Office to provide partnership resources to the Sustainable Operations community of practice such as the newly revised Partnership Resource Center and the Grants & Agreements Quick Guide for Program Managers.

**Next Steps:**

We completed our goals in FY11 and will no longer operate as a team in FY12. However, we will act as a resource for partnership-related efforts and be available on an as-needed basis.


**Goal 3:**
**Cross-Pollination, Fostering Organizational Connectivity**

*Board Member Champion:* Jerry Perez

*Board Staff Champions:* Lisa Machnik and Janet Valle

To foster organizational connectivity, the Communications Team maintains the Western Collective's electronic presence and coordinates national communications and messaging for the Sustainable Operations community. We develop and outreach consistent communications, messaging, education, and improved organizational connectivity. Through effective communications, we seek to increase the efficient implementation of Sustainable Operations.

**Team members:** Aurora Palmer (chair), Heather Davis, Jenny Kane, Sarah Kuiken, Jamey Lowdermilk, Jessica Medina, Meghan Oswald, Michele Parker

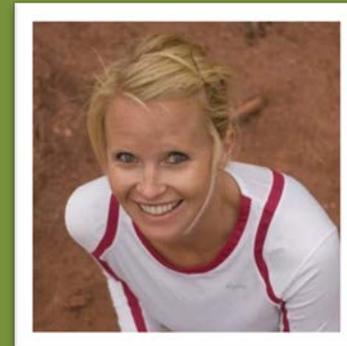
**Accomplishments:**

In FY11, the Communications Team identified existing and needed communication tools through an informal questionnaire, which received almost 300 responses from within the Sustainable Operations community. Synthesized findings included requests for:

- An increased focus on leadership and implementation within the Sustainable Operations community;
- A centralized, user-friendly, internal website to access and share sustainability resources, and to network with other champions;
- Communication mediums that enable two-way as well as person-to-person communication; and
- A communications plan that coordinates sustainability messaging, supports connectivity to meet capacity needs, and emphasizes leadership and targeted audience engagement.

*"I'm a geek and love understanding how people relate to the world. I really enjoyed working with the Communication Team in developing a questionnaire to better understand how the Sustainable Operations community wants to communicate and share all their successes. The new website is going to be an amazing product!!"*

Aurora Palmer



*“The WC provides a forum for me to create contacts within this community and provides the needed horsepower that I need on-forest to begin implementing EMS.”*

Tim Dedrick



Janet Valle



Based on the needs identified through the questionnaire, we completed:

- A finalized draft of the Sustainability Stories database;
- An initial launch and continued improvement to the Western Collective SharePoint site for coordination among the Western Collective teams;
- Revisions to the Western Collective Communications Strategy;
- Development of a Sustainable Operations internal website, complete with graphic designer and site infrastructure draft contracts; and
- Coordination with CIO and Digital Visions to publish our internal site infrastructure as an external website for sharing successes and finalized products with our partners and the public.

**Next Steps:**

- Improve, finalize, and continually maintain the Western Collective SharePoint site, which includes site trainings for all Western Collective teams.
- Provide ongoing contract management for the Sustainable Operations internal website.
- Develop consistent messaging resources for Western Collective teams, and finalize a Western Collective Communications Plan for internal circulation.
- Publish a quarterly newsletter for the Western Collective Board complete with monthly footprint focus areas, accomplishments, and talking points.

 **Goal 4:**

**Youth and Community Engagement**

*Board Member Champion:* Ruth Monahan and Brent Botts

*Board Staff Champions:* KJ Silverman and Joni Packard

Youth and community engagement is how we build support for Sustainable Operations programs with our partners, fellow agencies, schools and communities. The Climate Change Scorecard has two elements, #5 and #10, that specifically direct this work task.

**Team members:** Julie Molzahn (chair), Sarah Baker, Sue Baker, Todd D. Buchholz, Vicky Burton, Katherine Lawson, Jamey Lowdermilk, Michele Parker, Larry Pratt

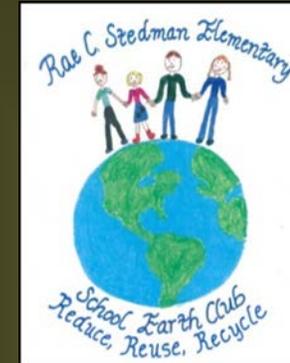
**Accomplishments:**

We focused on helping units meet Climate Change Scorecard goals by:

- Developing best practices to connect schools and communities with Forest Service programs and further Sustainable Operations.
- Developing best practices to partner with Job Corps centers.
- Providing a listing, via the Western Collective website, of key government and external sites that highlight youth and community engagement practices. Many of these share useful messaging, handouts and engaging activities.

**Next Steps:**

Although this team will not operate in FY12 due to focusing resources toward implementation on Forest Service Units, we will continue to share success stories and lessons learned about youth and community engagement across the Collective.



**Sustainability in Action!**

Petersburg, Alaska, an isolated community of 3,000, is located on Mitkof Island along the scenic Inside Passage in the heart of the Tongass National Forest.

The Tongass National Forest and Petersburg School District joined under the Adopt-A-School program to enhance students', teachers', and the community's connection to their National Forest.

They have participated in activities such as stream walks, recycling, tree planting, building milk jug birdhouses and mini-greenhouses, composting, and constructing a community garden.

*“My team was able to provide a document (SOP) to help others in the field dive into their utility bills and in general, raise awareness that we should.”*

Laurie Yeager



## Goal 5:

### Sustainability from Stovepipes

The Sustainability from Stovepipes Team was a bit ahead of its time. The purpose of this team was to explore strategic linkages and opportunities to connect Sustainable Operations with other components of the agency's climate change efforts. Through 'think tank' discussions among a wide variety of disciplines and perspectives, the team had planned to identify, a few key activities that would help to better connect our land management activities with our footprint reduction efforts. Given the forthcoming development of the Climate Change Scorecard, this team opted to disband at mid-year until agency-wide direction was further clarified. Deliverables were reallocated to a newly formed team focused specifically on developing direction for the sustainable consumption component of the Climate Change Scorecard. See Element 10 Team under Goal 1 for further description.

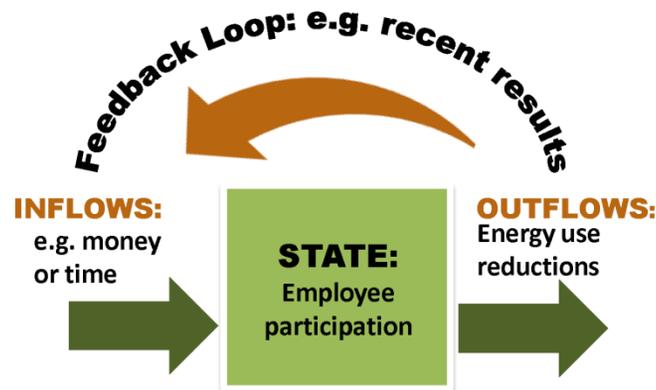
 **Goal 6:**

**Greening the Next Generation and Building Capacity**

*Board Member Champions:* Cloetta Schroeder and Kevin Riordan

*Board Staff Champions:* Jennifer Bakken and Sarah Kuiken

Our goal is to grow knowledge about Sustainable Operations for all employees. We do this by building leadership and capacity, and integrating Sustainable Operations into employee performance.



**Team members:** Jennifer Bakken (co-chair), Sarah Kuiken (co-chair), Gretchen Fitzgerald, Karen Gaiennie

**Accomplishments:**

- We enabled 17 employees to attend conferences or training to further their knowledge about Sustainable Operations through awards from the “professional development fund.” As part of the award, participants shared their new knowledge with co-workers in order to expand the reach of the funding.

*“[My greatest accomplishment in the WC has been] carrying the message forward that sustainability and fire operations can successfully coexist and watching that concept pick up momentum with our incident management teams.”*

Deanna Crawford

### Sustainability in Action!

The Professional Development Fund made it possible for Rachelle Meyer an Ecologist/Writer working at the Rocky Mountain Research Station, Fire Sciences Laboratory to attend an on-line course titled Environmental Management II at Harvard University Extension School.

This course examined environmental management of atmospheric resources and energy in the context of natural resources, human health, and sustainable practices.

While taking this course Rachelle investigated funding options for energy efficiency-related projects in the Forest Service. She interviewed Forest Service engineers, facilities managers, green team affiliates, architects and district rangers in order to learn of available funding resources that could help contribute to energy efficient projects.

Rachelle presented her report, *Funding Energy in Efficiency in the Forest Service*, during the [September 2011 Open Mic Webinar](#) and she plans to publish her efforts in a Technical Report to help share and document this valuable knowledge.

- We developed the Chief's "Sustainable Operations in the Forest Service: You Have A Role!" video that the Chief sent to all employees on Earth Day 2011. We also posted the video on YouTube.
- We developed examples of Sustainable Operations performance measures in collaboration with Human Resources Management. Supervisors and employees can incorporate the measures into individual performance reviews to document an employee's Sustainable Operations efforts and accomplishments.
- We developed a line officer sensing survey to determine Forest Supervisors' opinions and needs related to Sustainable Operations. We will use the results of this survey to help advance Sustainable Operations on local units.

#### Next Steps:

- Build four learning sessions for Western Collective members that focus on professional development and skill building around Sustainable Operations.
- Develop training and tools for supervisors that support engagement and success in Sustainable Operations.
- Assist with the FY12 Ranger Exchange pilot between the Pikes Peak and Bearlodge Districts. We will review the pilot and use that knowledge to develop a program for future exchanges across the Western Collective.
- Create an awards program that recognizes both Western Collective members and units for excellence in sustainability leadership.


**Goal 7:**
**Sustainability Science**

*Board Member Champion:* Ruth Monahan

*Board Staff Champions:* Anna Jones-Crabtree, Katie Delaney Newcomb, Jennifer Bakken, Marie Zanowick

The Sustainability Science team provides research, systems analysis, publications, and decision support to the Western Collective and WO Business Operations for Sustainability. Our team coordinates and initiates Forest Service research on topics such as reductions in cost, waste, and environmental impact of agency operations. Research focuses on quantification and return-on-investment data. Scoping studies cross regional and station boundaries, connecting land managers and expert scientists in diverse Sustainable Operations cases, sites, experiments, and studies.

**Team members:** Trista Patterson (co-chair), Jamey Lowdermilk (co-chair), Jennifer Bakken, Jennifer Kane, Rachelle Meyer, Katie Newcomb, Dave Nicholls, Michelle Parker, Marie Zanowick

**Accomplishments:**

In FY11, the Sustainability Science team identified ‘return on investments’, which included resources saved, generated by various actions. We used analytical, research-based methods to quantify these savings.

We gave presentations to research station leadership teams at PNW and SRS. We connected representatives from all stations by initiating a collaborative research network and scientist directory.

We partnered with the Climate Change Resource Center (CCRC) as well as the SRS team developing the Tool for Assessing Climate Change Impacts and Management Options (TACCIMO). In both cases, our team worked to

*“Increasingly, we have a common language and systems-based toolkit which is really broadening our strides. The single most important accomplishment of the science team this year has been establishing and expanding this network into the Research & Development Units across the nation with the Scientist Directory. Increasingly, this will help us link managers to researchers who can help provide quantified decision support.”*

Trista Patterson



*“My greatest accomplishment has been helping to develop a relationship between the Western Collective Sustainability Science team with the EFETAC TACCIMO team (Southern Research Station). Through this partnership, we will embed sustainability science and Sustainable Operations into the FS' climate change planning documents.”*

Jamey Lowdermilk



integrate sustainability science into existing science delivery mechanisms.

We prepared introductory materials and researched scoping documents to raise awareness of this work among managers and scientists.

Finally, we completed drafts of the following papers in review prior to Journal/General Technical Report (GTR) submission:

- Proceedings of Sustainable Operations Summits 2009, 2010, and 2011 science tracks,
- Sustainable Operations Survey White Paper,
- Sustainability Communication Tips,
- GTR on Energy Efficiency Barriers, and
- Community Energy Efficiency in Southeast Alaska.

**Next Steps:**

- In FY12, our Team will host three sessions in the Science for Sustainability Track for the 2012 Sustainable Operations Summit, which includes the Science Keynote by William Clark, Co-Director of the Sustainability Science Program at Harvard University.
- We will continue our integration work with CCRC and TACCIMO, in particular highlighting how research contributes to agency response to climate change.
- We will create a directory of “sustainability science” information including scientists, resources, research opportunities, and definitions of methodologies.
- We will continue to scope forthcoming areas of research and summarize knowledge.
- We intend to submit publications on TACCIMO and Sustainable Operations, a water demand GTR, and a journal article on the role of Sustainability Science in Governing Agencies.
- We will continue to use analytical and research-based methods to collect and synthesize the Western Collective’s return-on-investments.

## Integrating the Intangible Outcomes

Measures of success are usually tangible, delivering something concrete, material and physical. Although much Western Collective work has resulted in tangible outcomes, in some respects the unanticipated intangible outcomes have had a greater and longer lasting impact. Sustainable Operations is more than installing a piece of technology to reduce our consumption. To achieve success, there must be an element of behavior change—a cultural shift. The intangible outcomes from the FY11 Western Collective work have helped start a shift in agency culture toward more sustainable consumption patterns. As future years' work plans are built, it will be increasingly important to continue to integrate and articulate the intangible outcomes.

The three main areas of intangible benefits identified for FY11 include:

**Behavior Change:** This year the Western Collective worked with a social scientist to incorporate behavior change and the science of working with people to affect change into most of the team deliverables. Including a social scientist on the teams gave a fresh perspective to working on sustainability. Reducing the carbon footprint of the agency will involve breaking old habits, increasing awareness of resources wasted, and changing infrastructure.

**Teamwork and Technology:** The vast majority of Western Collective work is through virtual communication. All work was accomplished by teams using the available technology to effectively meet and develop documents. This required that many team members learn new social networking skills such as how to set up webinars, effectively hold interactive discussions over conference calls, create “doodle” polls to coordinate calendars, and transparently share documents through a digital team room. Some Western Collective participants hadn't previously needed to plan across multiple time zones, learn the language of other disciplines, or balance the timing of a project. In many respects, the Western Collective experience served as professional development -meeting multiple needs with one elegant solution.

*“We've made such great progress in two short years, so it's exciting to anticipate how much more we can do moving forward.”*

Sarah Kuiken



*"[My greatest accomplishment has been] supporting the development of the Western Collective and furthering the strong network of the sustainable operations community of practice!"*

Anna Jones-Crabtree



**Developing and Integrating Leaders:** Participation in the Western Collective is more than just a chance to work on innovative projects. At whatever location and organizational level a Team Member sits, there are chances to develop broader and more integrative leadership skills. It can be as simple as leading a team call, briefing a Board member, or writing a letter for Regional Foresters to sign, or as complex as finding meaningful ways to propagate successes and lessons learned on home Units. Team Members share responsibility for helping achieve Western Collective outcomes. With that responsibility comes the leadership to ask “what if” and “why not” instead of getting mired in “we can’t.” This is a skill we inspire in each other; we are responsible for creating an environment that supports innovation and involvement, no matter where others are on their own spectrum of learning about sustainability. Collaboration, learned at this level, serves all of us both inside and outside the Agency.

## Moving Forward and Creating the Future We Want

The future of Sustainable Operations depends on collaboration and information-sharing within and across all levels of the Agency. With this objective in mind, the Western Collective Board meets annually to refine the vision, develop next year's goals, and identify needs and actions.

The Western Collective's goals for FY12 are:

1. Enabling Implementation: Helpdesk, Toolkits, Other Resources
2. Doing it Once: Cross Pollinating & Cultivating Cooperation
3. Investing in the Future

Adapting and evolving have been vital to the Western Collective's success. The table at the end of this section shows how our FY 10 program of work has continuously improved into our FY12 planned efforts. The Board understands that we need top-down policies and processes, yet those frameworks are most empowering if they are informed by bottom-up efforts, pilots and feedback. At the intersection of top-down and bottom-up approaches exists a significant leverage point for shifting an entire organization's behaviors and culture. This means we need to leverage our interdependence by supporting "middle-out" focus. Therefore, to continue to fostering this "middle-out" effect, the Western Collective will keep in mind two scales for each of its FY12 goals. These are:

1. Field level: The Western Collective will continue to focus on field-level support that is 'tuned' to local needs to help grow our future as we move into our third year of the Western Collective and welcome the Pacific Southwest Region (R5) formally into the Collective.
2. National level: The Western Collective will continue to adapt and evolve to promote a resilient and resource-efficient Forest Service by taking steps such as partnering with different deputy and staff areas in the Washington Office. As these relationships grow, more national-level efforts are

### Sustainability in Action

In place of a face-to-face annual meeting in FY11, the Western Collective Board met virtually.

Initially this decision was a result of budget concerns, but it gave members an opportunity to rethink 'norms' and consider how working virtually could save not only travel costs, but also greenhouse gas emissions, and still offer a shared, inspiring learning environment.

*"Sustainability is not a problem to be solved, but rather a condition to be created."*

Darcy Winslow  
(sustainability consultant  
from virtual to virtual  
meeting)

*"[What excites me about being a part of the Western Collective is] making changes and seeing changes which embed Sustainable Operations in to our daily habits in my unit and throughout the Forest Service."*

Jennifer Bakken



anticipated. For instance, the Western Collective will continue working with National Sustainable Operations and the WO Engineering Group to further the Element 10 Team, which helps foster work on the Sustainable Operations Element of the Climate Change Scorecard.

During the annual board meeting, a sustainability consultant offered leadership development, focusing on core competencies of sustainability and benchmarking. Six major categories of needs and actions were identified through the leadership development session:

**Transition to Nationwide:** Create a strategy for moving forward nationwide.

**Reinvest the Savings:** Keep savings from Sustainable Operations and start rewarding actions by reinvesting.

**Report (up, down, out):** Close the feedback loop and report back down from upward reporting, and share results.

**Train Executive Leadership:** Provide inspirational experiences and training for leadership around sustainability.

**Engage Employees:** Encourage leadership to communicate with employees, supporting local Sustainable Operations actions.

**Diffuse Successes and Share Benchmarks:** Share project successes to eliminate duplicative Sustainable Operation efforts.

Board Members are committed to moving forward on some of these needs in a middle-out fashion.

FY11 and FY12 Team and Goal Crosswalk				
Goals FY 10/11	Goal Development Team FY11	Moving to 2012	Goal Development Team FY12	New/Combined Goals FY 2012
	Element 10	Unchanged in 2012	<b>Element 10:</b> Manage and coordinate for Element 10 Team	<b>GOAL 1</b>  ENABLING IMPLEMENTATION: Helpdesk, Toolkits, Other Resources
		<b>NEW</b>	<b>Implementation:</b> Coordinate information and resources for on-the-ground implementation of Sustainable Operations activities	
1	LISO	Unchanged in 2012	<b>LISO:</b> Fully implement and utilize the LISO progress tracking system	
1	Green Procurement	Unchanged in 2012	<b>Green Procurement:</b> Launch the Green Purchasing Toolkit for agency wide use	
2	Greening Fire	Unchanged in 2012	<b>Greening Fire:</b> Continue supporting the fire community with integrating sustainable practices	
3	Cross Pollination, Fostering Organizational Connectivity	Merging with 2012 >	<b>Communications:</b> Connect Sustainable Operations Champions and develop and maintain an electronic presence for the Sustainable Operations community	<b>GOAL 2</b>  DOING IT ONCE: Cross Pollination & Cultivating Cooperation
4	Greening the Next Generation and Building Capacity	Merging with 2012 >	<b>Leadership and Capacity:</b> Increase and continue Sustainable Operations professional development, skill building, and leadership recognition	
1	Accomplishment Report	Unchanged in 2012	<b>Accomplishment Report:</b> Develop FY11 & FY12 Western Collective Accomplishment	
		<b>NEW</b>	<b>Coordination:</b> Continue sharing through monthly calls with all board staff and team chairs	
2	Getting to Zero Guides/ Big Makeover	Merging with 2012 >	<b>Net Zero:</b> Implement and pilot guides developed in FY10-FY11 and identify larger-scale opportunities	<b>GOAL 3</b>  INVESTING IN THE FUTURE
7	Science and Sustainability	Unchanged in 2012	<b>Science and Sustainability :</b> Continue to foster momentum within Research	
2	Growing GHG Efforts	Merging with 2012 >	<b>GHG Accounting:</b> Complete GHG inventory pilots and cookbook toolkit for tracking progress	



## Recognition

Winners of the 2011 Western Collective:

**Linda Du Lac**, Region 6 Regional Office

Business Operations Award: Sustainable Operations Green Innovation

**Aurora Palmer**, Aspen District (White River NF)

Outstanding leadership of the FY11 Sustainable Operations Western Collective Communication Team.

**Laurie Yeager**, Arapaho/Roosevelt NFs

Outstanding leadership of the Sustainable Operations Western Collective Utility Bill Clean-Up Team in developing an agency-wide utility bill clean-up protocol, resulting in savings for units that implement them.

**Meghan Oswald**, Region 1 Aerial Fire Depot

Outstanding team participation on the Sustainable Operations Western Collective LISO, Green Purchasing, Greening Fire and Communication Teams. Meghan demonstrated superior project management skills and completed more than her share of the teams' workloads.

**Ashton Hargrave**, Dolores District (San Juan NF)

Outstanding team participation on the Sustainable Operations Western Collective Net Zero Team. Ashton's work was instrumental relationships with units that will benefit from the net zero guides.



## Contributions



Sarah Baker (R3)  
Jennifer Bakken (RMRS)  
Heather Davis (R2)  
Gretchen Fitzgerald (R2)  
Anna Jones-Crabtree (R2)

Sarah Kuiken (R2)  
Katie Newcomb (R6) not pictured  
Meghan Oswalt (R1)  
Michele Parker (R10)  
Marie Zanowick (EPA) not pictured

Thank you to all contributors, and especially to the Team Chairs and Co-chairs.

Special thanks to Independent Resources:  
Julie Cox, Kathy Mitchell, Cheri Ziebart



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