



Moving Forward on a Pragmatic Approach to Climate Change A Strategy for Implementing Sustainable Operations

Meeting EO13423 and Energy Independence & Security Act of 2007 Goals by 2015 And Employing an Agency-wide Culture of Sustainable Practices by 2020

Climate change is the most pressing issue of our time. As such our land stewardship mission must be strategically integrated with practices that reduce our consumption and overall use of resources on this planet. The direct relationship between healthy forests and our faucets, our heating systems, our clean air, our modes of transportation, and many other goods and services has never been more apparent. This strategy supports considered, focused progress on reducing the Forest Service's environmental footprint in the short term and creating an integrated culture of sustainable practices in the long term.

This strategy is a suggested list of next steps to continue the sustainable operations work begun under a three year partnership between the Rocky Mountain Region and WO State and Private Forestry to pragmatically implement conservation into the agency's day-to-day operations. The tremendous momentum around this effort to date has been accomplished by skunk works or as collateral duty employees volunteering their time and energy. It is recognized that at the place-based levels of the agency this maybe the way this work continues. However, our agency-wide compliance and reporting for EO13423 and the Energy Act of 2007 will require more structure and national leadership then the skunk works effort will be able to provide. *This strategy proposed in this document is meant to inform and support discussions concerning the transition of sustainable operations from a solely place-based approach to a balance with a national framework for more concise metrics, accountability and reporting into 2009 and beyond.* Sustainable Operations offers a system approach from which EMS, climate change, and external partnerships can strategically connected to create overall agency success. Required EMS and Executive Order outcomes have been specifically highlighted in the action items listed for each footprint area.

Specifically this strategy outlines actions that will enable the agency to accomplish two things:

- 1) Meet the goals set by EO13423 and the Energy Independence and Security Act of 2007 ahead of schedule and no later then 2015 and,
- 2) Creating the organizational capacity to employ an agency-wide culture of sustainable practices that will carry us into our next century of "caring for the land and serving people" by 2020.



There are three components to each of the following six environmental footprint sections (energy, water, fleet/transportation, waste prevention/recycling, green purchasing and sustainable leadership):

- 1) A vision for the agency for 2020
- 2) Broad objectives supporting activities that move the agency towards this vision and,
- 3) An initial listing of some of the most critical activities that must be implemented over the next 2 years in order to make progress meeting the vision and subsequent objectives. Both local place-based opportunities and necessary national top-down framework actions are included. ***Activities included do not compile a comprehensive picture of all actions necessary to meet all objectives. However, the activities listed were deemed most relevant at this time given information garnered from the 2007 Sustainable Operations Summit and the FY2007 Environmental Footprint reporting process.*** Additionally, because EMS is such an important tool for reducing our footprint impacts and is required for us to meet EO 13423 requirements EMS related activities have been highlighted with a special bullet. Attachment B contains a current self assessment of our progress towards meeting EO13423 goals as of the writing of the FY2007 National Environmental Footprint Report.

The vision and objectives are meant to be long term. However, the activity listing for each footprint area will be updated annually allowing for continuous improvement and prioritization of the most urgent issues where leverage exists to move most efficiently towards the vision put forth in this strategy.



SUSTAINBLE LEADERSHIP

'Leaving no habit unturned'

A VISION FOR 2020

We will create within our operations habits that inspire individual and organizational decisions leading directly to conserving natural, economic and human resources for tomorrow through all the decisions we make. We will seek continual improvement, strive to share our learning, serve as an example to others, and work to live up to the public trust. By 2020 all employees understand and actively participate in their role in creating this vision both in their day-to-day habits as well as their professional circles of influence.

AGENCY OBJECTIVES WITH INITIAL ACTION ITEMS

(Action item listing is not intended to be comprehensive but identifies highest needs at this time.)

1) Integrate Sustainable Operations activities with Sustainable Resource Management activities, resulting in environmental, social, and economic benefits.

- ♻️ Include Sustainable Operations activities as a critical core component of an integrated climate change strategy for the agency that includes both resource management and resources use activities.
- ♻️ Elevate the importance of EMS as a tool to reduce the agency's environmental footprint **AND** as a tool that clearly connects sustainable operations with sustainable resource management. This will lead to reduced duplication of effort and a truly integrated long term approach connecting our traditional land ethic with a consumption ethic. There should be one agency-wide EMS.
- ♻️ Continue and support with resources the cross-functional sustainable operations efforts started in fire and recreation operations under leadership from R1. Identify other cross-discipline activities where sustainable operations implementation opportunities exist both in internally and with external partners.
- ♻️ Write and distribute an all employee set of memo's from the CIO's office about 'green computing' both personal computing habits and education about what the entire agency is doing.
- ♻️ Finalize and implement FSM 1360 Managing the Forest Service's Environmental Footprint

2) Agency leadership builds legitimacy and support for sustainable operations efforts by providing technical resources and a management climate, and demonstrating actions so that the agency is known for both its consumption ethic and its land ethic.

- ♻️ Identify efforts ELT, NLT, RLT and SLT members can take to reduce their footprint, include a short standardized footprint review topic for every ELT, NLT, RLT, SLT meeting
- ♻️ Support and continue the Regional Forester's Office Make-Over Rocky Mountain Region
- ♻️ Allocate specific staff time and resources to continue the annual environmental footprint reporting data gathering process and the compilation of the report . Continually improve this process and integrate a variety of reporting requirements into one reply due. Commit to a goal of 100% of all units reporting their footprint data through this process. Showcase and share this integrated process with other federal agencies. (See Attachment



A for an introductory excerpt from the draft FY 2007 National Environmental Footprint Report). This report has played a significant role in our relationship with and support to USDA's Department-wide efforts.

-  Negotiate Sustainable Operations performance elements with the Union for all bargaining unit employees.
-  Create a Sustainable Operations virtual team to support the networking and sharing of place-based and green team efforts, technical information and support integrated reporting across all footprint areas. (Attachment C outlines a proposed organization for a virtual team.)
-  Include sustainable operations as a category for the Chief's Honor Awards both for internal efforts and external partnership efforts
-  Incorporate at all R/S/A's a sustainable operations category for their awards
-  Develop monthly talking points about our consumption ethic ideals and sustainable operations examples for use in ELT, NLT, RLT, SLT member's speeches, articles and other internal and external communications.
-  Continue the annual sustainable operations summit as a way to support sustainable operations efforts and network employees. The 4th Summit in 2008 is hosted by NA, FPL, NRS and R9. R6/PNW has shown interest in supporting the 2009 Summit.
-  Provide resources and project management support to the 7 locations piloting the EPA Climate Leaders protocols. This will prevent lack of duplication and support an agency-wide effort at reducing greenhouse gas emissions.

3) Increase agency capacity and capabilities to implement sustainable operations at and between all levels of the organization sustainable operations policy, practices, and tools are in place making compliance easy, tracking of accomplishments a part of everyday business, and the rapid seizing of technologies and other opportunities possible.

-  Review EMS approach and strengthen the linkage with sustainable operations and climate change. (start with screening criteria for significant environmental aspects)
-  Clarify and articulate roles and responsibilities for implementing EMS activities linked to sustainable operations (The EMS guide assigns responsibility for implementation of many activities to a sustainable operations team which does not organizationally exist other then currently in and ad-hoc fashion.)
-  Clarify and articulate Line Officer roles and responsibilities for implementing EMS as a continuous improvement tool.
-  Use a National Sustainable Operations virtual team to facilitate the integrated annual reporting of our environmental footprint as well as other EO and policy requirements. This team can serve as the center of excellence to support sharing of efforts between green teams.
-  By 2015, all 5 goal areas of the EO are fully implemented in EMS; 2010 – energy, 2011 – green purchasing, 2012 - -water, 2014 – recycling and waste management
-  Develop a maintenance plan for keeping the national sustainable operations website, wiki, open mic forums current and useful. Allow external access to the sustainable operations website as soon as possible to promote info sharing with our partners and other state, federal and local agencies.
-  Generate a 'green job corps' effort that integrated green job corps facilities sustainable ops curriculum and training.



Changing habits today, conserving resources for tomorrow.

- ♻️ Develop a sustainable operations module for new and seasonal employee orientation
 - ♻️ Provide resources to continue the work started in R9 on the Chippewa for the Extreme Footprint Makeover District Ranger Project
 - ♻️ Continue to integrate sustainable operations projects into the Presidential Management Fellows, Senior Leaders, and Executive Leadership programs.
 - ♻️ Facilitate the use of interns from other agencies to support sustainable operations efforts. Opportunities exist to do this on a national basis with EPA.
- 4) Create Value from Sustainable Operations Efforts and Reduced/Changed Consumption Patterns**
- ♻️ Actively implement methods and processes for units to retain cost savings from any footprint area at the unit level for reinvestment into additional environmental footprint reduction activities. 2007 work included recycling proceeds. Energy and fleet savings would be next steps.
 - ♻️ Track savings from use of video conferencing, both in \$'s and in environmental impact and communicate what the savings will go towards to all employees.
- 5) The agency is recognized for integrating work across Environmental Footprint areas, for using partnerships to achieve results, and for learning from and along with others.**
- ♻️ Score green on the appropriate scorecards for all footprint related metrics by 2010
 - ♻️ Forest Service employees actively participate in USDA Sustainable Operations Council workgroups
 - ♻️ The Forest Service is considered a leader within USDA and the Federal Government because of our integrated efforts at understanding and reporting our environmental footprint. We share our efforts openly with other agencies and work to create 'super green teams' where we join with other state, local, federal agencies in certain locations to support each others efforts. Create a super green team in Denver leveraging our with the Denver Federal Board.
 - ♻️ The Annual Environmental Footprint report is compiled and share with USDA by January 1 of each year.
 - ♻️ The Forest Service is annually recognized in at least one of the categories of the White House Closing the Circle Awards and we routinely submit nominations for other environmental footprint related federal awards.
 - ♻️ Identify resources and activities that will continue to support the implementation and integration of sustainable operations actions into our recreation programs and do this jointly with our recreation partners and public. Support the development of a cross-agency recreation related Green Team in the Northern, Rocky and Intermountain Regions.
 - ♻️ Identify resources and activities that will continue to support the implementation and integration of sustainable operations actions into our fire operations continuing work started under the leadership of the Northern Region.



FLEET AND TRANSPORTATION

Striving for Zero Emissions

A VISION FOR 2020

Improve our transportation and travel practices, reducing harmful emissions, increasing operational and fuel efficiency, and reducing non-renewable fuel use. We will achieve zero green fleet and transportation emissions by 2015. (Zero emissions means we will significantly increase our use of native fuels, and strategically offset those emissions we cannot avoid by investing in additional renewable energy installations on our facilities in the equivalent of our fleet emissions. This also applies to offsetting our airline and POV travel that cannot be avoided by the use of video conferencing or other technology.)

AGENCY OBJECTIVES WITH INITIAL ACTION ITEMS

(Action item listing is not intended to be comprehensive but identifies highest needs at this time.)

1) Incorporate and maintain long-term programs that implement the use of appropriate vehicles and equipment for the appropriate task.

 Implementing reporting mechanism for gallons of fuel used by fuel type and equipment id # at the unit level.

EMS/EO Accomplish EMS Fleet Implementation Plan (8 pages of actions currently assigned to fleet managers and EMS representatives)

EMS/EO Improve reporting to accurately capture fuel consumption

 Develop methods of converting # of Airline trips into green house gas emissions estimates and create a program to a)reduce those emissions via video conferencing and other technology and b)offset those emissions using activities on NFS lands

 Create a telecommuting program for the agency and identify ways to quantify the reductions in environmental impacts resulting from such a program.

 Continue to support the deployment and use of Video Conferencing and expand our use to include partners

 Engage with National Renewable Energy Lab in a scope of work for a fleet right sizing study that is integrated with our vehicle allocation methodology effort. Strategy for right-sizing/ downsizing of fleet #s and types of vehicles

 By 2015, all diesel vehicles will operate on biodiesel; by 2010 – 30%, by 2012 – 60%

 By 2012 all AFVs use AFuels; 80% of the fuel consumed. Strategy for local availability of AF at field offices

 Create an agency-wide strategy for centralized mtgs to reduce travel

 Strategy to reinforce the concepts of carpooling, ride sharing, carrying the mail

 Quantify the use of Agency owned and contracted aircraft

 Develop a fleet strategy for fire incidents that minimizes environmental impacts while still meeting incident needs.

2) Institute a culture that emphasizes education, rewards positive actions, and recognizes achievements related to greener, more efficient transportation and reduction of environmental footprint.



Changing habits today, conserving resources for tomorrow.

- ♻️ Identify ways units can track and keep cost savings from use of video conferencing and carpooling.
 - ♻️ Educate drivers on the true costs of vehicle use.
 - ♻️ Develop an awards system for units with the lowest green house gas annual fleet activities.
 - ♻️ Create a more comprehensive way to measure fleet and transportation successes other than in \$'s of reduced travel.
- 3) Integrate the environmental impacts of fleet operation and management, and travel into daily decisions, habits, and planning.**
- ♻️ All ELT/ NLT/ RLT/ SLT meetings will be zero emissions by 2010. There will be a mechanism in place to offset emissions that cannot be avoided by implementing some activities on NFS lands or facilities.
 - ♻️ Systems in place to track rental car, private vehicle use and non-WCF fleet vehicles – how to balance resource management work w/ fuel consumption
 - ♻️ Track video conferencing to ID amount of travel saved – indicative of need to update databases/ processes to track accomplishments such as video conf/ green purchasing and other requirements for RCRA reporting
- 4) Demonstrate conservation leadership in fleet management and transportation in the global environment.**
- ♻️ Fully participate in USDA's Fleet and Transportation Sustainable Operations Council Workgroup
 - ♻️ Expand NREL partnership to include GSA and pilot new vehicle technologies
 - ♻️ Support research for biomass as an alternative fuel

ENERGY

Striving Towards Net Zero Energy

A VISION FOR 2020

Reduce our reliance on unsustainable energy sources and contribute to the market for sustainable energy becoming a net zero energy agency by 2015 (net zero energy means generating renewable energy from installation on facilities and NFS land in the amount that is equal to or greater than our current agency-wide consumption)

AGENCY OBJECTIVES WITH INITIAL ACTION ITEMS

(Action item listing is not intended to be comprehensive but identifies highest needs at this time.)

- 1. Incorporate and maintain long-term programs that apply leading edge energy conserving technologies to reduce traditional non-renewable sources while promoting the use of renewable energy sources throughout the organization.**
 - ♻️ Modify our reporting and data systems so all FS energy use (electrical/heating) is captured at the unit level in both terms of # spent and units consumed for both agency owned and leased buildings. Line offices should be able to know their consumption easily.
 - ♻️ Create an energy neutral FS by 2020; 25% by 2012, 50% by 2016, 100% by 2020

7/31/2008



Changing habits today, conserving resources for tomorrow.

- Implement a 4 year energy/water audit cycle for all FS facilities and implement improvement findings within 2 years
 - Develop and deploy an energy management plan for the entire agency.
 - ESPCs/UESCs will be used to the fullest extent for energy conservation & renewable energy development – R/S/As with an ESPC/EUSC – 2010 – 30%; 2012 – 60%; 2015 – 100%
 - Implement actions identified in the lighting guides across the agency.
 - Coordinate renewable energy credit purchases across the agency. Partner with National Renewable Energy Lab to develop a methodology for creating REC's on NFS lands that offset our own consumption and can support REC needs of other federal agencies.
 - EMB/EO** Identify available data and review for appropriateness for baseline by 20XX.
 - EMB/EO** Develop strategy in 20XX for auditing 10% of buildings annually as required by "Instructions."
 - EMB/EO** Develop strategy by 20XX for meeting EO requirements of reducing energy intensity by 3% annually through 2015, acquiring new renewable energy sources, and complying with *Guiding Principles* for new construction and major renovations
- 2. Institute a culture that emphasizes education, rewards positive actions, and recognizes achievements related to energy resource conservation and the use of renewable energy.**
- Identify energy related training needs for facilities engineers,
 - Foster the expansion of energy microgrant programs as are currently implementing in R2, R4, and PSW.
 - Include water and energy conservation activities as an educational component for all those living in quarters.
 - Include water and energy conservation activities as a component for new and seasonal employee orientation.
- 3. Integrate energy resource conservation and use of renewable energy into daily decisions, habits, planning and operations.**
- By 2012 – all new and replacement lighting and bulbs shall be energy efficient for all FS buildings
 - Vending Misers required on all vending machines by 2012
 - Phantom/ watt hogs are managed to reduce energy use
 - Utility bills are routinely reviewed on all units on an annual basis. Implement the work of the Pike San Isabel utility tracking program on a national scale to facilitate this review need.
 - Develop a utility module for INFRA that connect with actual utility bill data (cost and consumption), supports metering activities, and tracking energy conservation actions. This continues and supports work begun by the R2 Energy Management Team
 - All purchasing actions are reviewed to meet Energy Star and other energy conservation requirements. Include a check box in IAS, and other requisitioning systems.
- 4. Support the creation of sustainable energy markets.**
- Increase our own use of renewable energy implementing a renewable energy project (at least one on each R/S/A) where technically feasible; 2010 – 30%, 2012 – 65%, 2015 – 100%



Changing habits today, conserving resources for tomorrow.

- Identify tools and methods needed to support appropriate renewable energy development on NFS lands
- Support existing renewable energy partnerships such as the Grand Mesa, Uncompahgre, Gunnison NF's (R2) MOU with Delta Montrose Electric. Identify other locations where strategic partnership opportunities exist.
- EPACT requires 3% renewable energy through 09, 5% for 2010 – 2012, and
- Use ESPC as a tool to facilitate energy conversations with permittees, and communities
- Integrate this effort with the National Biomass Strategy.

WATER

Striving Towards Zero Watershed Impact

A VISION FOR 2020

Create an understanding of, and implement practices and technologies supporting, water resource conservation. Our water use will have no impact on the watersheds in which we are located. (we will not participate as a community member in withdrawing more water than a watershed can sustainably provide, we will not dispose of items in our waterways that impact the quality of water)

AGENCY OBJECTIVES WITH INITIAL ACTION ITEMS

(Action item listing is not intended to be comprehensive but identifies highest needs at this time.)

1. Incorporate and maintain long-term programs that implement appropriate place-based use of water throughout the organization.

- Modify our reporting and data systems so all FS water use is captured at the unit level in both terms of # spent and units consumed for both agency owned and leased buildings. Line offices should be able to know their consumption easily.
- Implement a 4 year energy/water audit cycle for all FS facilities and implement improvement findings within 2 years
- Develop and deploy a water management plan for the entire agency.
- ESPCs/UESCs will be used to the fullest extent for water conservation – R/S/As with an ESPC/EUSC – 2010 – 30%; 2012 – 60%; 2015 – 100%

EMS/EO Identify available data for measuring water consumption intensity by 20XX

EMS/EO Review available data for appropriateness for baseline by 20XX

EMS/EO Develop strategy in 20XX for auditing 10% of buildings as required by "Instructions"

- Implement FEMP's ten best water management practices on all units by 2015. 25% by 2010, 60% by 2012, 100% by 2015 – faucets/ showers/ toilets, minimum to do
- Develop a non-metered water consumption strategy to track water savings/ conservation improvements

2. Institute a culture that emphasizes education, rewards positive actions, and recognizes achievements related to water resource conservation.

- Identify water related training needs for facilities engineers,
- Foster the expansion of water microgrant programs as are currently implementing in R2, R4, and PSW.
- Include water and energy conservation activities as an educational component for all those



Changing habits today, conserving resources for tomorrow.

living in quarters.

- ♻️ Include water and energy conservation activities as a component for new and seasonal employee orientation.

3. Integrate water resource conservation impacts into daily decisions, habits, planning and operations.

- ♻️ Utility bills are routinely reviewed on all units on an annual basis. Implement the work of the Pike San Isabel utility tracking program on a national scale to facilitate this review need.
- ♻️ Develop a utility module for INFRA that connect with actual utility bill data (cost and consumption), supports metering activities, and tracking of water conservation actions. This continues and supports work begun by the R2 Energy Management Team
- ♻️ All purchasing actions are reviewed to meet water conservation requirements. Include a check box in IAS, and other requisitioning systems.

4. Become water conservation and water source protection leaders in the global environment connecting water use activities with larger-scale watershed impacts.

- ♻️ Establish partnerships users that support larger scale systems efforts incorporating all components of our water supply systems: the sponge(forest), the infrastructure(delivery systems), and end use (conservation and disposal of toxics)
- ♻️ Support and facilitate water conservation efforts by all permittees
- ♻️ Facilitate cross-functional dialog between hydrologists and facility engineers to increase understanding and develop a more systems approach to our water work.

SUSTAINABLE ACQUISITION /GREEN PURCHASING
Striving Towards Zero Environmental Footprint Impact Purchasing

A VISION FOR 2020

Employ practices to elevate the sustainability performance of purchased goods and services and the performance of our suppliers, contractors, partners, and other governments. All our purchasing activities will have limited if any impact to the rest of our footprint areas by 2020 (that is, our purchasing habits will not increase our waste disposal, we will purchase no toxic and hazardous products, and our purchasing habits will not increase our energy, nor our fuel consumption)

AGENCY OBJECTIVES WITH INITIAL ACTION ITEMS

(Action item listing is not intended to be comprehensive but identifies highest needs at this time.)

1) Incorporate and maintain long-term programs that harness the collective power of the agency to create products and markets for sustainable goods and services thru our procurement policies/practices.

- EMS / EO** Develop strategy by 20XX for using sustainable environmental practices in acquisitions
- EMS / EO** Develop strategy by 20XX for using 100% of paper at least 30% post-consumer fiber content
- EMS / EO** Develop strategy by 20XX for incorporating sustainable practices in 15% of existing building inventory by 2015
- EMS / EO** Develop strategy by 20XX for acquiring 95% new electronic products EPEAT-registered



- EMS/EO** Develop and distribute in 2008 strategy for enabling Energy Star features on computers and monitors
- ♻️ Include sustainable operations language in all FS issued service and construction contracts to include; 2010 – 30%, 2012 – 60%, 2015 – 100%
 - ♻️ Continue work with WO AQM to understand and quantify our purchasing habits.
 - ♻️ Continue fostering partnerships with GSA
 - ♻️ More fully utilize our membership with the responsible purchasing network.
 - ♻️ Develop a green purchasing action plan based on the USDA Affirmative Procurement Guidance
 - ♻️ Fully participate in USDA’s Green Purchasing Sustainable Operations Council Workgroup
- 2) Institute a culture that emphasizes education, rewards positive actions, and recognizes achievements related to sustainable goods and services.**
- ♻️ Integrate the purchase goods and services into other footprint areas with minimum searching and analysis by procurement officials.
 - ♻️ Develop awards for purchasers who make big efforts in biobased, conservation or other green purchasing activities.
 - ♻️ Implement educational awareness/training for micropurchasers
 - ♻️ Create factsheets about how green purchasing integrates with other purchasing requirements (minority/small business etc.)
- 3) Integrate purchase of sustainable goods and services into all daily decisions, habits, planning and operations in a seamless manner.**
- ♻️ Incorporate language into all new FS leases to include energy efficiency & renewable energy, water conservation and are LEED certified
 - ♻️ Demonstrate how FS meets the requirements of the EPEAT; what metrics are in place and what needs to be in place
 - ♻️ Require all janitorial contracts stipulate green products by 2010
- 4) Actively participate in government-wide efforts to support the use of bio-based products.**
- ♻️ Fully participate in USDA’s Green Purchasing Sustainable Operations Council Workgroup
 - ♻️ Provide educational materials to purchased specifically about biobased purchases.

WASTE PREVENTION AND RECYCLING

Striving Towards Zero Waste

A VISION FOR 2020

Minimize waste generation and minimize landfill use striving towards zero waste (zero waste means that no items are disposed in a landfill rather reduce, reuse, recycling, and composting are standard)

AGENCY OBJECTIVES WITH INITIAL ACTION ITEMS

(Action item listing is not intended to be comprehensive but identifies highest needs at this time.)

- 1) Incorporate and maintain long-term programs for pollution prevention, source reduction, and recycling throughout the organization.**



Changing habits today, conserving resources for tomorrow.

- EMS / EO** Develop strategy by 20XX for reducing the quantity of toxic and hazardous chemicals and materials acquired, used, and disposed of
- EMS / EO** Develop strategy by 20XX for increasing diversion of solid waste by 40% by 12/31/2010 (40% diversion is a USDA Requirement)
- EMS / EO** Develop strategy by 20XX for maintaining cost effective waste prevention and recycling programs in facilities
 - Identify a national recycling coordinator
 - Coordinate with USDA to facilitate better tracking of waste disposal costs and waste disposal performance i.e., increased # of units recycling vs. increased % of waste diverted.
 - Support increased recycling activities on every unit
 - Coordinate national environmental audit findings into strategy
- 2) Institute a culture that emphasizes education, rewards positive actions, and recognizes achievements in waste reduction and pollution prevention.**
 - Provide information to all units about battery recycling, florescent lighting disposal
 - Tech tips on paint, paint thinner, and aerosols disposal and app
 - Submit a nomination for White House Closing the Circle Award for Waste prevention/recycling activities
 - Clarify manual direction on retaining and using proceeds from recycling activities
 - Publish and support the successes of the Greater Yellowstone Sustainable Operations Subcommittee
- 3) Integrate waste reduction and pollution prevention efforts into acquisition and purchasing decisions, and incorporate into daily activities, habits, planning and operations.**
 - Coordinate with GSA to identify key products that can be shipped with reduced packaging
 - Review purchasing for fire caches and identify green product and reduced packaging opportunities, partner with GSA
- 4) Strive for zero waste operations and activities on NFS lands, promoting the idea that "one person's trash is another's treasure."**
 - Incorporate waste prevention and recycling activities into permits, contracts and agreements with x% of entities working on NFS lands (start with recreation permits first)
 - Identify creative ways to respond to illegal dumping on NFS lands



ATTACHMENT A EXCERPTS FROM THE INTRODUCTION TO THE DRAFT 2007 NATIONAL FOOTPRINT REPORT

This is our second National Environmental Footprint Report. It has matured greatly from the first. My heartfelt appreciation goes to everyone who took the time to respond and participate in the data collection effort for this report. Thanks to your efforts, we have a much better understanding of our baseline consumption across all of our footprint areas. We have many more success stories from the incredibly innovative efforts undertaken at our field units. We also have close to 30 Green Teams established across the agency, and one of those is actively working here at my office in the Nation's Capitol. Green Teams everywhere are connecting with other agencies, communities, and partners to continuously improve the Forest Service's environmental footprint. An outgrowth of our collaboration with other has been identifying significant opportunities to adapt our sustainable operations efforts. Being flexible and more responsive in our approach is critical in the global arena where a changing climate is reality.

All of us have ownership in creating solutions to climate change. Some answers will come from the forest as a carbon sink and as a significant renewable energy source. Others will derive from the way we, as a society, approach the use of all the resources a healthy forest provides. Our land stewardship practices must be strategically joined with practices that reduce our consumption. The direct relationship between the healthy forests and our faucets, our heating systems, our clean air, our modes of transportation, and many other goods and services has never been more apparent. Every employee...every partner...every contractor...every community we work with has some responsibility to mindfully approach their use of the vast resources provided by the ecosystems on this planet.

Energy and water consumption, fleet use and travel, waste prevention and recycling, and purchasing of greener supplies and materials are activities that we all engage in on a daily basis. The Forest Service must now include these activities in our approach of 'caring for the land'. We have an unparalleled responsibility to future generations to strengthen and articulate this bond between a sturdy land ethic and a mindful consumption ethic. The future work of 'caring for the land' lies with our younger generation. We have endless opportunities to include today's youth, to seek their advice about how we will reduce our footprint, to make them a part of our conservation ethic for the future

History will judge us by how well we respond to the issues of climate change. I submit that we all have a responsibility to be leaders in this arena. Our traditional stewardship role is one and the same as reducing our own environmental footprint. I am honored to be part of an agency that cares so deeply for the forest and grassland landscapes of our nation and is also doing the hard grappling work of connecting those very landscapes with the resulting impacts of constructing the landscapes of our human built environment.

This is the second USDA Forest Service National Environmental Footprint report. The purpose of this document is to share what we know about the Forest Service's environmental footprint in the areas of energy use, water use, fleet and transportation, waste prevention and recycling, green purchasing, and sustainable leadership. It builds on the FY06 National Environmental Footprint document (located at



an internal portal site: https://fs.usda.gov/FSI_Documents/20070912-2006-environmental-footprint.pdf) by identifying specific baseline data, successes, opportunities, and challenges for each footprint area. The footprint process has increased our understanding of the impacts of our day-to-day operations in a comprehensive fashion and has been a method to collectively address existing policy and reporting requirements across all footprint areas in an integrated manner.

This footprint report includes data available through our national systems and databases as well as data gathered through the *FY 2007 Environmental Footprint Data Call* conducted in November of 2007. The data call was designed to help garner information directly from field units that not only wasn't available through a national system but increase our understanding about and ability to quantify our environmental footprint in the areas of energy use, water use, fleet and transportation, waste prevention and recycling, green purchasing, and sustainable leadership. The data call also served as an educational tool to amplify awareness of the requirements and resources available for place-based activities for each footprint area. Designed to assess, acknowledge, and lead to improvements in our sustainable operations practices, the data call collected quantitative information for reporting requirements as well as success stories and ideas for improvement. Building on the baseline Environmental Footprint Report prepared for FY 2006, this process and these measures will be refined annually as we track our learning and success in each of the footprint areas.

The six sections that follow describe our current progress and state of knowledge for each footprint area as of FY2007. Within each footprint area there are three sections:

- Success Shorts - brief descriptions of success stories from field units describing actual actions taken to reduce our footprint.
- Sizing Things Up: Our National Baseline – a description and discussion of baseline numbers from which we will be measuring our nation-wide progress on this particular footprint area
- Behind the Scenes: Place-based Activities - a more in-depth look at data from a Region, Station, Area perspective based on the FY07 National Environmental Footprint data call results that supports our progress at the place-based, local level

Many staffs and different disciplines supported this footprint data collection effort which led to a more comprehensive and integrated approach than last year. Additional sources of information include USDA contractor report(s), programs, projects, and the results of initiatives at regional and forest levels. One hundred and fifty-five (155) Forest Service units responded to the data call (Table XX.) In future years, we anticipate this process will be even more integrated across staff areas and eventually include a stronger link with our more traditional land stewardship focus.

All employees have a role in reducing the Forest Service's environmental footprint. As such all data used for this report will be posted on the sustainable operations webpage. Individual units can look at their specific data and use it to help them support their place-based efforts. While it is important to look at the data in context, it is also important that only in doing the hard work to understand our data can steps be taken that result in real reductions. All employees are encouraged to share ideas and help keep the momentum for



ATTACHMENT B PROGRESS TOWARDS MEETING EO13423 REQUIREMENTS

Figure X was included in the 2007 National Footprint Report. It shows that a lot of our work in 2007 was focused on meeting policy and regulatory requirements. This was for several reasons: we didn't have other specific goals and strategies in place, it allowed us to leverage and partner easily with other Federal Agencies under the same requirements and, our efforts towards this end also set the stage for more successes at changing our long term habits. The indicators of progress in Figure X are meant to show:

- Have we established a clear baseline for our consumption at a national level? Under EO13423 each footprint area has a different baseline year.
- Have we implemented footprint activities through our national level EMS?
- Have we identified measures and metrics of success and implemented those at a national level. For energy and water this is measured in intensity such as BTU's/GSF or gallons/GSF.
- Have we instituted strategic pilot projects that are of sufficient size in scale and scope that they will have national implications. For water energy we have several energy savings performance contracts moving forward. For Sustainable leadership several regions, stations and area have chartered sustainability boards to facilitate appropriate activities.
- Are we on track to meet the EO requirements such as green ratings on our OMB scorecards.
- Have we met the targets of the policy requirements.?

	Establish Baseline	Implemented through Environmental Management Systems	Appropriate measure/metrics identified and implemented	Strategic pilot projects implemented	On track to meet 2015 EO Target Requirements	Requirements Completely Met
Energy						
Fleet and Transportation						
Water Conservation						
Waste Reduction and Recycling						
Green Purchasing						
Sustainable Leadership						
<i>Legend</i>		<i>Fully Implemented</i>		<i>Actions Underway</i>		<i>Still in Development</i>

Figure X – Progress towards Meeting Policy and Regulation Requirements (EO13423, EPACT 2005)



ATTACHMENT C

A PROPOSED NATIONAL SUSTAINABLE OPERATIONS VIRTUAL TEAM

Virtual Team Concepts

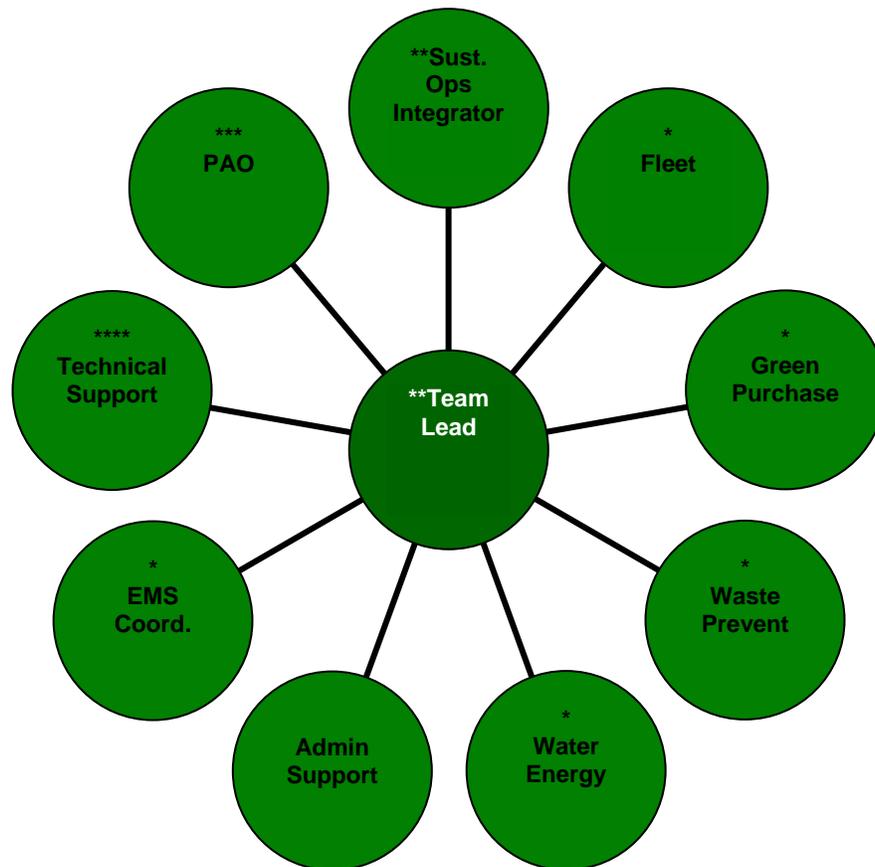
- Works across disciplines and boundaries of the Forest Service
- Clearinghouse for challenges, success, barriers
- Liaison with Climate Change Council
- Leadership for collective footprint reduction activities across the agency avoiding duplication of efforts
- Coordinates & integrates footprint-related data reporting needs across the agency
- Supports appropriate process development for each footprint area and EMS
- Facilitates sharing resources across units. Uses existing specialist staff as a way to integrate into existing organization (fleet as example)
- Facilitates Green Teams and Topic Teams networking across the agency
- Includes communication, networking, and information sharing

OPERATING PRINCIPLES

- Small and flexible
- Responsive and opportunistic – tier to environmental footprint and EMS
- Partnering and collaboration are everyday activities (internal and external)
- Environmental, Social, and Economic Sustainability are clearly connected
- Excellent communication
- Integrative: Unit and discipline boundaries are easily bridged
- Results oriented
- Clearinghouse for lessons learned
- Fosters integration into existing organization
- Duplication of effort avoidance

LOGISTICS

- Virtual field-based organization
- Stay connected with field champions, offer consistency
- Continues to grow the agency network of Champions
- Focused core team created to develop a longer term implementation strategy for true cultural change
- Shared resources across the agency (R2 administrative unit)
- National Leadership from place-based champions
- Collaborate with other R/S/A Sustainability Boards



*Fleet, Green Purchasing, Waste Prevention, Water/Energy, EMS Coordinator: re- focus of existing staff to include sustainable operations into their regular program of work and provide leadership for their peers across the agency for sustainable operations and coordination with EMS and change activities.

** Team Lead and Sustainable Ops Integrator positions to provide cross-discipline coordination in program delivery, data collection and footprint preparation. These positions also support development of partnerships. Team Lead serves as liaison for Sustainable Ops Council, USDA contacts and other leadership team(s).

***PAO position supports full range of internal and external communication opportunities.

****Technical Support position provides staff support to specialists who have come from existing staffs.