SUSTAINABLE REGION 9 GREENING GRANTS POLICY

EPA REGION 9

EPA Region 9 is implementing this Greening Grants Policy to incorporate sustainability practices into projects funded under EPA assistance agreements. This policy furthers the objectives of EPA's 2011-15 Strategic Plan which calls for the Agency to "...build resilience to climate change by integrating considerations of climate change impacts and adaptive measures into five major grant, loan, contract, or technical assistance programs..." It also complements the EPA Memorandum entitled *Incorporating Climate Change Adaptation Considerations into Applicable Assistance Agreement Competitive Funding Opportunity Announcements* (October 18, 2011) which strongly encourages EPA offices to include climate change adaption evaluation criteria in competitive assistance agreement funding announcements.

EPA Region 9 will strive to include sustainability criteria in competitive grant solicitations and integrate sustainability practices into grant work plans. During the work plan negotiation stage, Project Officers will work with grantees to determine the feasibility of including sustainability practices, such as those listed below, in grant work plans:

- Environmentally Preferable Purchasing
- Green Building and Construction Practices
- Materials Management: Resource Conservation and Green Disposal
- Energy Efficiency/Clean Energy
- Fuel Efficient Vehicles
- Sustainable Water Infrastructure
- Green Conferences/Meetings and Alternatives to Traditional Travel

These green practices are more fully described in the attached **Greening Grants Measures and Practices** (Attachment A) and should be evaluated in light of the specific statutory and regulatory requirements of each grant program, as well as the goals and activities of each assistance agreement. These practices will be updated as emerging strategies and technologies are identified.

EPA Region 9 has established percentage goals and metrics for grantees to achieve these green practice areas in **Greening Grants Goals** (Attachment B). Grantees will report on their success in achieving these goals in their quarterly, biannual, or annual performance reports. Project Officers and grantees should make every effort to add sustainability practices to grant work plans whenever practicable.

It is a priority of the EPA to ensure compliance with Title VI of the Civil Rights Act of 1964 in carrying out this policy. Title VI prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP), by entities receiving Federal financial assistance.

Issued on: August 9th, 2012

By:

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Attachment A

Greening Grants Measures and Practices

EPA Region 9

The EPA Region 9 Greening Grants Policy establishes the Region's commitment to assist grantees in integrating sustainability practices into grant work plans. During the work plan negotiation stage, Project Officers will work with grantees to determine whether it is feasible to include one or more green measures and practices such as those described below in grant work plans. We anticipate these specific measures and practices will be updated as emerging practices are identified. The last two pages of this document include a sample work plan which incorporates many of the green measures and practices identified below.

Environmentally Preferable Purchasing

Environmentally Preferable Purchasing (EPP) gives grantees an opportunity to purchase products (e.g. equipment and supplies) that have a reduced impact on the environment. It is important for grantees to look at the full life cycle cost and sustainability of products to determine the environmental impacts (e.g. raw material inputs, production methods, packaging, distribution methods, energy and water use, and disposal options).

The U.S. General Services Administration (GSA) has a useful website (GSA Advantage) containing a variety of environmental products and services: https://www.gsaadvantage.gov/advgsa/advantage/main/start_page.do. While GSA does not assist grantees in procuring supplies or services, the website is useful for learning about the latest environmental products and services.

Purchasing supplies and products low in volatile organic compounds (VOCs) such as ink, paints, carpets, and purchasing used and recycled items are good examples of environmentally preferable purchasing, as are the following programs:

- EPA's WaterSense Program certifies and labels water efficient products in variety of areas, see: http://www.epa.gov/watersense/
- EPEAT (Electronic Product Environmental Assessment Tool) system evaluates, compares, and selects desktop computers, notebooks, and monitors based on their environmental attributes, see: http://www.epa.gov/epp/pubs/products/epeat.htm
- EPA's ENERGY STAR Program certifies and labels energy efficient products, see: http://www.energystar.gov/

Suggested measures of accomplishment include but are not limited to:

- % of recycled paper purchased (reams or sheets)
- % of EPEAT, WaterSense, or ENERGY STAR products purchased
- % refurbished products purchased

Green Building and Construction Practices

Green building is the practice of creating and using healthier and more resource-efficient models of construction, renovation, operation, maintenance and demolition. Buildings represent an underestimated source of greenhouse gas emissions, and opportunities to address the challenge of climate change. EPA's Green Building website contains helpful information: http://www.epa.gov/greenbuilding/index.htm

Only a limited number of EPA grant programs involve building and construction. However, for those EPA grant programs which do involve building and construction, incorporating green building practices in planning, design, and construction of projects supported with EPA funds can help protect water quality, wetlands, air quality, and conserve natural resources. Green construction information is available at EPA's Smart Growth website at http://www.epa.gov/dced/. Examples include:

- Using construction materials:
  - with recycled content (pre or post-consumer recycled content, agricultural waste material, salvaged material)

  - which are easily and safely re-usable, recyclable or biodegradable

  -which are environmentally preferable products that avoid toxic or other emissions (e.g. low or new VOCs, limited use of polyvinyl chloride (PVC))

  - which conserve natural resources (e.g. certified wood products, rapidly renewable products, products which reduce material use or are unusually durable)

- Using products, equipment, and practices during construction, demolition and renovation that reduce environmental impacts and implement principles of waste minimization and reuse

- Using designs which incorporate energy and water conservation (e.g. environmentally sensitive landscaping, compact design, access to public transportation) that maximize the use of local resources

- Green roofs, porous pavements, and other storm water management measures

Suggested measures of accomplishment include but are not limited to:

- % of environmentally preferable construction materials used (e.g. lower carbon concrete); % of materials reused or recycled from demolition
- % of diesel powered equipment with EPA-verified diesel technology used in construction (e.g. diesel particulate filters and diesel oxidation catalysts installed on equipment)

- % of building space which is Leadership in Energy and Environmental Design (LEED) certified and/or description of green design practices incorporated (i.e. dual plumbing, passive solar, xeriscaping)
- **%** of water pipes inspected for leaks; % of water pipe leaks fixed

Materials Management: Resource Conservation and Green Disposal

Waste prevention and recycling reduces methane emissions from landfills, saves energy, and protects forest carbon sequestration. Waste prevention and recycling have tremendous beneficial impacts to the environment. To better understand the connection between materials management and climate change, visit EPA's Climate Change - Waste webpage at http://epa.gov/climatechange/wycd/waste/index.html. EPA's Waste Reduction Model (WARM) enables waste managers to track and report greenhouse gas reductions from different waste management practices. More information can be found at http://epa.gov/climatechange/wycd/waste/calculators/Warm_home.html.

EPA's Sustainable Materials Management (SMM) is a national effort to promote more efficient materials management through recycling and green initiatives such as electronics stewardship and industrial materials recycling. For more information visit: http://epa.gov/rcc. Examples of materials management can also be found at http://www.epa.gov/region09/water/recycling/index.html, or http://www.epa.gov/epawaste/index.htm, and include practices such as:

- Reusing materials instead of using manufacturing goods produced from virgin materials, especially paper products, carpeting products, building materials, and plastics
- Incorporating industrial materials into construction projects as substitutions for raw materials, such as coal ash, foundry sand, demolition materials, slags, and gypsum
- Using environmentally sound disposal practices for materials and equipment that cannot be reused or salvaged. Such disposal practices may include recycling or composting.

Suggested measures of accomplishment include but are not limited to:

- % of paper and trash reduced, composted, recycled or amount of decreased tons to landfill
- % of electronics recycled, donated or reused (e.g. computers recycled)
- % office supplies recycled (excluding computers and electronics) such as % of toner cartridges recycled, % of batteries recycled, etc.
- % of gallons of water saved

Energy Efficiency/Clean Energy

The use of clean energy can improve air quality, increase energy security, and reduce greenhouse gas emissions.

Renewable sources of energy include solar photovoltaic, thermal, wind, geothermal, biogas, biomass, and low impact hydroelectric. Combined heat and power (CHP), also known as

cogeneration, is an efficient, clean, and reliable approach to generating power and thermal energy from a single fuel source (coal, natural gas, biogas, or biomass). EPA's "Green Power Locator" includes a map of the U.S. to show you the green power options that exist for you: http://epa.gov/greenpower/pubs/gplocator.htm. Examples of clean energy practices include:

- Using clean and sustainable fuels (e.g. biofuels or ultra low sulfur diesel) or other forms of clean energy (e.g. solar/wind) in operating equipment, machinery or vehicles
- Appling verified diesel emission control technology (VDEC) for all on-road and non-road equipment used for transportation or soil movement and reducing unnecessary idling. Grantees may calculate diesel emission reductions based on diesel equipment calculator using the retrofit calculator which can be found at http://www.epa.gov/oms/stateresources/tools.htm
- Installing combined heat and power system
- Using renewable sources of energy for lighting, heating, and transportation

Suggested measures of accomplishment include but are not limited to:

- % of kWh reduced through efficiency or conservation (e.g. automatic shut down for office equipment, lighting, or computer power; number of energy efficient lights--CFLs, LEDs in place)
- % of gallons of alternative fuels used in lieu of conventional fuels
- % of kWh-renewable energy purchased or produced on-site
- % of natural gas reduced (cubic feet)
- % fuel oil reduced (gallons)

Fuel Efficient Vehicles

Transportation accounts for 30 percent of U.S. greenhouse gas emissions. It is the fastest-growing source of greenhouse gases in the U.S., increasing 1.5 percent per year. These estimates do not include the additional lifecycle emissions from such things as the extraction and refining of fuel, and the manufacture of vehicles. Visit EPA's Green Vehicles Guide at http://www.epa.gov/greenvehicles/Index.do to find clean and fuel-efficient vehicles. In addition, EPA's SmartWay^{SM} (http://www.epa.gov/smartway/index.htm) is an innovative brand that represents environmentally cleaner, more fuel efficient transportation options. It includes products and services that reduce transportation-related emissions.

There are a limited number of EPA grants in which EPA grantees may purchase or lease vehicles. When the purchase or lease of vehicles is authorized under an assistance agreement, grantees should consider purchasing, leasing, or renting fuel efficient vehicles.

Suggested measures of accomplishment include but are not limited to:

- Number and type of electric, alternative fuel, and/or hybrid vehicles rented, leased, or purchased under the grant

Sustainable Water Infrastructure

The use of sustainable water infrastructure practices can help reduce the growing gap that exists between investment needs and available funding at the local and national level. Such practices can serve to reduce greenhouse emissions, and adapt to the climate variability that is threatening our water resources.

More information can on sustainable water infrastructure practices can be found at http://water.epa.gov/infrastructure/sustain/ and include but are not limited to:

- Full-cost pricing of water services to accurately reflect the true costs of services, including the treatment and delivery of water, as well as the construction, operation and maintenance of the system
- Efficient use of water in the residential and commercial sectors to reduce the strain on water and wastewater utilities, eliminate the need for system expansions, and save energy; this may include water re-use projects, water conservation programs, and projects that correct water loss/leak issues
- Efficient use of energy, which may include capturing methane emissions from wastewater treatment facilities, use of alternative energy sources and/or co-generation to power water utility operations, energy benchmarking, energy audits, and establishing a plan to implement the recommendations of an energy audit
- Incorporating sustainable water infrastructure considerations into all engineering design documents, including a description of the energy efficiency features considered for the project, as well as a present value savings analysis of all design alternatives considered
- Implementing green building practices during construction

Suggested measures of accomplishment include but are not limited to:

- % of gallons of potable and/or reclaimed water used; % of gallons of potable water saved or recycled
- % xeriscape landscape installed; % of linear feet of dual plumbing installed
- % of linear feet of water pipes inspected for leaks; % of water pipes leaks fixed
- Number of energy audits conducted

Green Conferences/Meetings and Alternatives to Traditional Travel

Transportation accounts for 30 percent of U.S. greenhouse gas emissions. This figure does not include the additional lifecycle emissions from the manufacture of vehicles and airplanes.

Since the greenest trip is the one that is not taken, grantees should consider holding teleconferences, videoconferences, and web conferences. Such conferences would dramatically reduce the need to travel to meetings. If travel is required, grantees should consider taking public transportation, riding bicycles, participating in carpool programs, or using fuel efficient vehicles.

When feasible, grantees should hold green conferences/meetings using environmentally preferable measures to minimize negative impacts on the environment (e.g. paper handouts and use of binders should be avoided or minimized). For more examples, see *Sustainable Region 9 Green Meetings and Conference Policy* at: http://www.epa.gov/region9/ems/pdf/EPA-R9-Grn-Mtgs-Policy.pdf

Suggested measures of accomplishment include but are not limited to:

- % of trips offset by conference calls, videoconferences, and web conferences
- % of trips where public transportation, carpools, fuel efficient vehicles, or bicycles were used to attend off-site meetings
- % of meetings held in which green practices were instituted (e.g. no paper handouts or bottled water provided, etc.)

Sample Work Plan Containing Green Measures

I. Green Practices/Measures

A. Overall Objective: _____ (*fill in the blank*)

B. Specific Tasks/Activities and Outputs

- Environmentally Preferable Purchasing
    - Recipient will commit to purchasing only EPEAT or equivalent energy savings computers. Recipient will report the % of EPEAT (or equivalent) computers purchased in each reporting period.
- Materials Management: Resource Conservation and Green Disposal
    - Recipient will utilize material collection in the office for all recyclables used in the office including paper, plastics, glass, and aluminum. Recipient will provide % of recyclables collected in pounds of material in each reporting period.
    - Recipient will recycle all printer cartridges and purchase only re-fillable printer cartridges. Recipient will set duplex printing (two-sided) as defaults on all capable printers. Recipient will report the number % of printer cartridges recycled and purchased in each reporting period.
- Green Conferences/Meetings and Alternatives to Traditional Travel
    - Recipient will strive to hold teleconferences and webinars in lieu of travelling out of the area for conferences. Recipient will report the % of teleconferences or webinars held in lieu of traditional travel.
- Energy Efficiency/Clean Energy
    - Recipient will strive to reduce kWh for the project by ___% by using automatic shut-down for office equipment and lighting, and using energy efficient lights.
    - Recipient will strive to reduce the amount of natural gas used for the project by __%
- Green Building and Construction Practices
    - ___% of the equipment used by Recipient to clean-up/remediate _____ site will have either diesel particulate filters or diesel oxidation catalysts installed.

- Fuel Efficient Vehicles

    - If approved and determined by the Project Officer to be cost effective, Recipient will rent ___ hybrid vehicles.

- Sustainable Water Infrastructure

    - Recipient will inspect _____% of linear feet of water pipes for leaks.
    - Recipient will recycle _____ % of gallons of potable water in carrying out the project.

Attachment B

Greening Grants Goals

For Grant Years One through Three

Below is a table of metrics which EPA grantees should use to report on their success in carrying out green practices in their work plan tasks and activities. The metrics are flexible, easy to apply, and are consistent with metrics commonly used today.

Goals for EPA grants year one through three:

- **Year One:** Grantees will identify green measures/practices that achieve their goals and establish a baseline to measure accomplishments in the first year of their grant. However, if an activity can be accomplished more easily without developing a baseline, other alternatives would suffice (e.g. including a statement such as "100% of existing computers will be replaced with EPEAT compliant units over the next five years after they have reached the end of their useful life.")
- **Year Two**: Grantees will endeavor to improve baseline goals by 5%.
- **Year Three**: Grantees will endeavor to improve Year Two goals by an additional 2% (for a total of 7%).

Note: For continuing grants and grants longer than three years, Grantees will endeavor to improve subsequent year goals by 1% each year and/or establish new goals.

Grantees are also encouraged to incorporate sustainability practices into subgrants/subawards and contracts awarded under their EPA assistance agreements.

Environmentally Preferable Purchasing	Green Building and Construction Practices	Resource Conservation and Green Disposal	Energy Efficiency/Clean Energy	Fuel Efficient Vehicles*	Sustainable Water Infrastructure	Green Meetings and Alternatives to Traditional Travel
% of recycled/ refurbished products purchased (excluding items	% of diesel powered equipment with EPA-verified diesel	% of paper and trash reduced, composted or recycled or	% of kWh reduced through efficiency or conservation (e.g. automatic shut down	Number and type of electric, alternative fuel, and/or hybrid	% of gallons of potable and/or reclaimed water used; % of gallons	% of meetings held in which green practices were used (e.g. no paper handouts or

counted under EPEAT, ENERGY STAR, WaterSense) such as computers, monitors, laptops, copiers, lighting fixtures or LED lights, water fixtures, etc.	**technology used in construction (e.g. diesel particulate filters and diesel oxidation catalysts installed on equipment)**	**amount of decreased tons to landfill (e.g. office recycling)**	**for office equipment, lighting, or computer power; number of energy efficient lights- CFLs, LEDs in place); % of natural gas reduced (cubic feet); % of fuel oil reduced (gallons)**	**vehicles rented, leased, or purchased under the grant**	**of potable water saved or recycled**	**bottled water provided-- for more examples, see EPA R9's Green Meetings Policy at www.epa.gov/region9/ems/pdf/EPA-R9-Grn-Mtgs-Policy.pdf)**
% of ENERGY STAR, WaterSense or EPEAT items purchased	**% of building space which is LEED certified and/or description of green design practices incorporated (i.e., dual plumbing, passive solar, xeriscaping)**	**% of electronics recycled, donated or reused (e.g. computers recycled)**	**% of gallons of alternative fuels used in lieu of conventional fuels; % of kWh renewable energy purchased or installed on-site**	**Program in place to monitor implementation of selected practices**	**% xeriscape landscape installed; % of linear feet of dual plumbing installed**	**% of trips offset by conference calls, webinars, or videoconferences**
% of recycled paper purchased (reams or sheets)	**% of environmentally preferable construction materials used (e.g. lower carbon concrete); % of materials reused or recycled from demolition**	**% of office supplies recycled (excluding computers and electronics) such as % of toner cartridges recycled; % of batteries recycled, etc.**	**Establish building baseline using ENERGY STAR Portfolio Manager**	***Note: most grants do not allow the purchase or lease of vehicles**	**% of linear feet of water pipes inspected for leaks; % of water pipe leaks fixed**	**% of trips where public transportation, carpools, fuel efficient vehicles, or bicycles were used to attend off-site meetings**
% of products purchased that can be recycled or composted	**% of water pipes inspected for leaks; % of water pipe leaks fixed**	**% of gallons of water saved**	**Program in place to monitor implementation of selected practices**		**See other applicable columns for energy and construction practices/metrics**	**Program in place to monitor implementation of selected practices**
Program in place to monitor implementation of selected practices	**Program in place to monitor implementation of selected practices**	**Program in place to monitor implementation of selected practices**			**Program in place to monitor implementation of selected practices**	