

APPENDIX A - U.S. EPA REGION 8 CLIMATE CHANGE STRATEGIC PLAN - draft

Region 8 Climate Change Activities Matrix 2008 Update										
Goal A. Assess and plan for the effects of climate change on current and future responsibilities of the regional office.										
Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>A.1</b>	<b>Conduct Activities to Increase Knowledge and Ability to Respond.</b>									
	a. Climate Change Workgroup Members will work with their respective programs to assess the effects of climate change on their current and future responsibilities, as well as their role in mitigation, adaptation, and communication activities.	High	Short-term	# of assessment activities	OPRA-State Assistance	Laura Farris	N/A	Various programs	NA	R8 Climate Change Strategic Plan
	b. The Climate Change Workgroup will share critical programmatic information among its members, and provide cross-program coordination. Key policy-making and high profile decision-making will be elevated to the Senior Leadership Team.	High	Short-term	N/A	OPRA-State Assistance	Laura Farris	0.1	Various programs	R8 Climate Change Quickplace	R8 Climate Change Strategic Plan
	c. Develop indicators of the effects of climate change in the Region, including environmental, health, and economic. Track regional trends in coordination with states, tribes, research scientists, federal agencies, and others who have on-the-ground knowledge and monitoring capabilities.	High	Short-term	List of indicators, tracking plan	OPRA-State Assistance	Laura Farris	0.05	Various programs	Previous indicator work for various programs	R8 Climate Change Strategic Plan
	d. Develop a methodology for prioritizing the Plan's activities, including the identification of activities that have the highest potential to reduce greenhouse gases and increase our capacity to adapt.	High	Short-term	Methodology, list of highest potential activities	OPRA-State Assistance	Laura Farris	0.05	Various programs	Previous methodologies for various climate action plans	R8 Climate Change Strategic Plan
<b>A.2</b>	<b>Evaluate the types of disaster events that might occur as a result of climate change and prepare a coordinated response.</b>									
	a. Research available data on projected disaster events related to climate change, and evaluate how they might translate into regional effects.	Medium	Medium-term	Completed research	EPR-Resonse Unit	Gina Andrews and Laura Farris	0.1	Emergency Response Community	Existing Research	R8 Climate Change Strategic Plan
	b. Coordinate with the emergency response community to evaluate the results of the research, and prepare a response plan.	Medium	Medium-term	Response Plan	EPR-Resonse Unit	Gina Andrews and Laura Farris	0.1	Emergency Response Community	Existing Plans	R8 Climate Change Strategic Plan
<b>A.3</b>	<b>Evaluate the human health and welfare impacts of climate change and prepare a coordinated response.</b>									
	a. Research available data on projected health and welfare implications of climate change, and evaluate how they might translate into regional effects. Coordinate with the EPA Office of Children's Health Protection and the Office of Research and Development.	Medium	Short-term	Completed research	OPRA-State Assistance	Laura Farris	0.05	Public Health Community	Existing Research	R8 Climate Change Strategic Plan
	b. Coordinate with the public health community to evaluate the results of the research, and prepare a response plan.	Medium	Short-term	Response Plan	OPRA-State Assistance	Laura Farris	...	Public Health Community	Existing Plans	R8 Climate Change Strategic Plan

Region 8 Climate Change Activities Matrix 2008 Update

Goal B. Identify and Implement Goals and Priority Activities That Have the Highest Potential to Reduce Greenhouse Gas Emissions.

Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>B.1</b>	<b>Increase energy efficiency in the residential, commercial and industrial sectors.</b>									
	a. Provide support to builders, developers, and other partners in Region 8 States to increase the number of ENERGY STAR® Qualified New Homes.	Low	Short-term	None	OPRA-P2 and Toxics	Patty Crow	0.39	Builders, lenders, developers, home energy raters, utilities, sponsors	Guidelines and protocols for new homes, Indoor Air package, Advanced Lighting Package, marketing resources	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
	b. Promote ENERGY STAR in new affordable housing in Colorado and Utah in 2008 through state and local affordable housing organizations.	Low	Short-term	None	OPRA-P2 and Toxics	Patty Crow	...	Affordable housing organizations	Guidelines and protocols for new homes, Indoor Air package, Advanced Lighting Package, marketing resources	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
	c. Provide technical assistance to the ENERGY STAR for Multi-Family pilots in Fort Collins and Denver, Colorado in 2008.	Low	Short-term	None	OPRA-P2 and Toxics	Patty Crow	...	Builders, lenders, developers, home energy raters, utilities, sponsors	Guidelines and protocols for new homes, Indoor Air package, Advanced Lighting Package, marketing resources	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
	d. Provide support to "Home Performance with ENERGY STAR Program" sponsors in Colorado (Colorado Springs, Boulder, Fort Collins) and Wyoming (Laramie, Cheyenne) in 2008.	Low	Short-term	None	OPRA-P2 and Toxics	Patty Crow	0.01	Utilities, local govt., State Energy Offices, certified contractors, HERS raters	Home Advisor, Home Yardstick, video podcasts, contractor training, marketing materials	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
	e. Promote the use of ENERGY STAR benchmarking tools through outreach, training, and technical assistance to existing building owners and operators.	High	Short-term	% of square footage increased from previous year	OPRA-P2 and Toxics	Patty Crow	0.45	Government, hospitality, healthcare, commercial, education, utilities, service & product providers	National performance rating tool, Portfolio Manager, Guidelines for Superior Energy Management	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
	f. Promote the use of ENERGY STAR commercial building design in Colorado, Utah and Montana in 2008 through outreach and training for architects, engineers, and building owners.	Low	Short-term	None	OPRA-P2 and Toxics	Patty Crow	0.03	Trade groups	Target Finder	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
	g. Promote the ENERGY STAR Challenge Campaign through the National Association of Manufacturers Regional Centers, and provide recognition to industrial plants that are awarded the ENERGY STAR label through press events.	Low	Short-term	None	OPRA-P2 and Toxics	Patty Crow	0.01	Targeted industrial sectors	Industry specific energy management tools and resources	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives

	h. Promote the use of ENERGY STAR consumer products through various ENERGY STAR national campaigns (Change A Light, Low Carbon IT, Build A Better World 10% At A Time) with various partners through press releases, articles, and events.	Low	Short-term	# of pledges or renewals; # of press releases, articles and events	OPRA-P2 and Toxics	Patty Crow	0.1	All	Marketing materials	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG
	i. Encourage current Performance Track members who are renewing, as well as new members, to commit to reducing greenhouse gas emissions as one of their future commitments.	Low	Medium-term	# of members with GHG commitments; GHGs reduced	OPRA-State Assistance	Mary Byrne	0.5	Performance Track members	Measures of current vs future emissions	Performance Track Program
	j. Work with the oil and gas industry through the Natural Gas Star program and State Environmental Departments and State Oil and Gas Commissions to minimize methane emissions from production operations while maximizing gas-to-market.	High	Long-term	Methane emission reductions from Gas Star	ECEJ-Technical Enforcement-Air Toxics	Cindy Beeler	0.5	EPA Natural Gas Star, State Env. Depts., State Oil & Gas Commissions, industry trade groups, WRAP	Natural Gas Star tools, emissions inventory, various methodologies	EPA R8 RA's Priority
	k. Support the adoption and use of cost-effective technologies and management strategies to enhance energy efficiency at water and wastewater utilities through the Sustainable Infrastructure Program. Support shall include outreach, training, workshops, and incentives. Coordinate with the ENERGY STAR Program.	Medium	Medium-term	# of activities	OPRA-Water-Wastewater	Elaine Lai	0.05			Sustainable Infrastructure Program and R8 Strategy (activity 1-3)
	l. Conduct a regional Sustainable Infrastructure Forum in 2008, co-hosted with Region 6, to begin to identify region-specific issues, challenges, and barriers to achieving sustainable infrastructure. The outcome of this forum will be used to refine and further develop the Sustainable Infrastructure Energy Management Handbook and Guidelines.		Short-term	Completion of Forum	OPRA-Water-Wastewater	Elaine Lai	0.6			Sustainable Infrastructure Program and R8 Strategy (overarching priority)
	m. Provide ENERGY STAR Benchmarking tools and financial training to wastewater treatment plants through municipalities, townships, service and product providers, utilities and trade organizations. Coordinate with the Sustainable Infrastructure Program.	High	Short-term	% of square footage increased from previous year	OPRA-P2 and Toxics	Patty Crow	0.01	Local government, service & product providers, utilities, water treatment trade organizations	Portfolio Manager, Energy Star Guidelines for Energy Management, Challenge Toolkit	CAA Section 103, P2 Act of 1990, US Climate Policy & Actions, current and near-term GHG reduction initiatives
<b>Goal</b>	<b>Activity</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Measures</b>	<b>Responsible Office</b>	<b>Lead Contact</b>	<b>FTE</b>	<b>Partners</b>	<b>Tools</b>	<b>Directive</b>
<b>B.2</b>	<b>Increase fuel efficiency, and the production and use of clean energy and alternative fuels.</b>									
	a. Explore options for regional participation in the Green Power Partnership.	Medium	Medium-term	# of partners	OPRA-State Partnerships	Dale Murphy	0.1	EPA HQ Green Power Partnership	EPA Green Power Partnership tools	R8 Climate Change Strategic Plan
	b. Oversee Environmentally Responsible Redevelopment and Reuse Program (ER3) projects as they become available to the region, and share successes.	N/A	N/A	# of projects; GHGs reduced	EPR-Program Support	Kathy Hernandez	N/A	None at this time	N/A	N/A
	c. Work with the oil and gas industry through the Natural Gas Star program and State Environmental Departments, as well as State Oil and Gas Commissions and DOE, to minimize fuel gas use in production operations.	Medium	Long-term	Cubic feet of lease gas used	ECEJ-Enforcement-Air Toxics	Cindy Beeler	0.25	EPA Natural Gas Star, State Env. Depts., State Oil & Gas Commissions, industry trade groups, WRAP	Natural Gas Star tools, emissions inventory, various methodologies	EPA R8 RA's Priority
	d. Promote and help implement OSWER and R8 initiative for placing renewable energy at contaminated sites.	Medium	Medium	Kilowatt hours generated	EPR	Tim Rehder	0.2	CO Governor's Energy Office, Clear Creek County, City of Anaconda, MT, CO Brownfields Foundation	NREL Mapping Analysis of Solar and Wind Potential on Contaminated Lands, EPA Power Profiler	EPA Regional Priority, EPA Climate Change and Contaminated Lands Initiative

	e. Sign up at least one new SmartWay Partner in EPA Region 8 in FY08.	Medium	Short-term	# of partners	OPRA-Air and Radiation-ITT	Rebecca Russo	0.2	RMCDC	FLEET Performance Model	NCDC
	f. Advertise new grant funding available under the Diesel Emissions Reduction Act (DERA) to ensure that EPA receives a large number of high-quality applicants from entities located in EPA Region 8.	High	Medium	# of grant applications	OPRA-Air and Radiation-ITT	Rebecca Russo	0.85	RMCDC	Diesel Emissions Quantifier; National Mobile Inventory Model	Energy Policy Act of 2005
	g. Award and manage new clean diesel grants (under the DERA) that have various project goals, including equipment retrofits, efficiency measures, and replacing regular diesel with biodiesel.	High	Medium	# of grants; pollutants reduced; fuel saved and replaced	OPRA-Air and Radiation-ITT	Rebecca Russo	...	RMCDC	Diesel Emissions Quantifier; National Mobile Inventory Model	Energy Policy Act of 2005
	h. Manage existing Clean School Bus (CBS) and National Clean Diesel Campaign (NCDC) grants that have various project goals, including equipment retrofits, efficiency measures, and replacing regular diesel with biodiesel.	High	Medium to Long-term	# of grants; pollutants reduced; fuel saved and replaced	OPRA-Air and Radiation-ITT	Rebecca Russo	...	RMCDC	Diesel Emissions Quantifier; National Mobile Inventory Model	Energy Policy Act of 2005
	i. Expand the Rocky Mountain Clean Diesel Collaborative (RMCDC) membership by advertising the Collaborative. Hold meetings of the Collaborative every other month.	Medium	Long-term	Active partners; meetings or workshops	OPRA-Air and Radiation-ITT	Rebecca Russo	0.35	RMCDC	None	NCDC
	j. Educate other EPA offices about the importance of incorporating clean diesel practices into their grants and/or contracts to the extent practicable. This would include the Brownfields and Superfund programs and could include all EPA grants.	Medium	Long-term	# of grants; pollutants reduced; fuel saved and replaced	OPRA-Air and Radiation-ITT	Rebecca Russo	0.1	RMCDC	Diesel Emissions Quantifier; National Mobile Inventory Model	RMCDC
<b>Goal</b>	<b>Activity</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Measures</b>	<b>Responsible Office</b>	<b>Lead Contact</b>	<b>FTE</b>	<b>Partners</b>	<b>Tools</b>	<b>Directive</b>
<b>B.3</b>	<b>Reduce greenhouse gas emissions through work in the core program areas.</b>									
	a. Air: a.1) Look for opportunities to encourage overall reductions in greenhouse gas emissions during implementation of the Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) State Implementation Plan (SIP) requirements for the PM2.5 24-hour NAAQS and the revised 8-hour Ozone NAAQS.	Medium	Long-term	Emissions reductions	OPRA-Air Quality Planning and Management	Tim Russ	7	States	Data evaluation methods; atmospheric models; evaluation of control technologies	CAA and applicable EPA policy and guidance documents
	a.2) Look for opportunities to encourage overall reductions in greenhouse gas emissions during implementation of the CAA Regional Haze SIPs.	Medium	Short-term	Emissions reductions	OPRA-Air Quality Planning and Management	Tim Russ	...	States	Atmospheric models; evaluation of control technologies	CAA and applicable EPA policy and guidance documents
	b. Water: Participate on a workgroup through the Office of Water OGWDW Program to ensure the safeguarding of drinking water where commercial scale carbon sequestration is employed.	High	Short-term	Final rule; GT of CO2 injected and sequestered	OPRA-Groundwater-UIC	Wendy Cheung	2	GWPC, IOGCC, DOE	models;databases	regulatory authority
	c. Ecosystem Protection: Participate on a national workgroup to finalize the Office of Water Climate Change Mitigation/Adaptation Strategy.		Short-term	Completion of Strategy	EPR-Ecosystems Protection	Carol Russell		EPA HQ	N/A	None
	d. Brownfields: d.1 Continue to encourage the preservation or creation of carbon sequestering green spaces by increasing the weight of grant selection criteria that emphasize the creation of, preservation of, or addition to a park, a greenway, undeveloped property, recreational property, or other property used for nonprofit purposes.	Low	Short-term	Amount of land restored; pollutants addressed	EPR-Brownfields Program	Dan Hefferman	N/A	N/A	FY09 Guidelines for Brownfields Cleanup; Revolving Loan Fund Grants	Statutory Requirement: SBLRBRA Amendment to CERCLA



a. Provide Resource Conservation Challenge (RCC) Program grants through a competitive process to grantees to achieve various goals related to the Program such as landfill diversion and materials efficiency.	Medium	Short-term	pounds diverted from landfill; materials reduced, recycled, or reused	OPRA-Solid and Hazardous Waste	Ben Bents	0.1	Selected Grantees	Various	EPA R8 RCC Strategy and Workplan
b. Promote reductions in municipal solid waste in the State of Colorado through the Pay As you Throw Program under the Resource Conservation Challenge (RCC). Provide technical assistance to municipalities by conducting workshops on the Program's features and benefits.	High	Short-term	# of workshops, municipalities signed up for technical assistance, technical assistance given, curbside recycling program stemming from this effort	OPRA-Solid and Hazardous Waste	Ron Lillich	0.05	Municipalities in Colorado	WARM GHG calculator, communication with partners, contractor (Skumatz)	RCC Program
c. Recruit and mentor Region 8 Federal Facilities to become Federal Electronics Challenge partners.	Medium	Short-term	Energy savings; reductions in GHGs (kg), solid waste (kg), primary materials (kg), hazardous waste (kg), air and water emissions (kg); cost savings	OPRA-P2 and Toxics	Kim Bartels	0.02	EPA HQ, Office of the Federal Environmental Executive (OFEE), other Region 8 Federal Facilities	Electronics Environmental Benefits Calculator, communications with R8 Federal Facilities and FEC Champions across the nation	Electronics Stewardship MOU, EO 13423
d. Expand partnerships in the Coal Combustion Products Partnership (CP2) Program with industry, states, academia, and/or other entities to increase the recycling of coal combustion products in Region 8 and reduce greenhouse gas emissions.	High	Short-term	# of new partners, pounds or tons of coal combustion products reused/recycled, pounds or tons of GHGs mitigated, # of case studies developed	OPRA-Solid and Hazardous Waste	Kendra Morrison	0.05	EPA R8, EPA HQ, recruited partners	Communication with partners and EPA HQ, GHG calculators	EPA R8 RCC Strategy and Workplan, RCC Program, Industrial Materials Recycling Program and Implementation Plan
e. Provide forums for the exchange of information about industrial materials recycling, including conferences and workshops among regulators, industry, and other stakeholders.	High	Short-term	# of attendees, # of measures to increase industrial materials recycling; # of tools distributed, amount of industrial materials utilized	OPRA-Solid and Hazardous Waste	Kendra Morrison	0.4	EPA R8, USDA's Agricultural Research Service (ARS), State DEQs and DOTs	Registration counts, surveys, informational resources and tools	EPA R8 RCC Strategy and Workplan, RCC Program, Industrial Materials Recycling Program and Implementation Plan
f. Develop and host the 2008 Beneficial Use of Industrial Materials Summit in Denver, Colorado on March 31 – April 3, 2008.	High	Short-term	# of attendees	OPRA-Solid and Hazardous Waste	Kendra Morrison	...	EPA R8, USDA's Agricultural Research Service (ARS), State DEQs and DOTs	Registration counts, surveys, informational resources and tools	EPA R8 RCC Strategy and Workplan, RCC Program, Industrial Materials Recycling Program and Implementation Plan

	g. Identify and work on a major construction project(s) with developers, builders, and others who influence materials use and encourage recycling of coal combustion products and construction and demolition materials to support EPA's Construction Initiative	High	Medium-term	pounds or tons of coal combustion products reused/recycled, construction and demolition materials recycled, and GHGs mitigated; # of case studies developed, energy and cost savings	OPRA-Solid and Hazardous Waste	Kendra Morrison	0.4	EPA R8, local developers and builders	Construction Initiative Cross-Marketing handbook (toolkit), GHG calculators	RCC Program, RCC Strategy and Workplan
	h. Explore area partnerships, such as with the City of Denver's Greenprint Program, to support their goals for city green building policy and high performance buildings, reducing greenhouse gas emissions, and promoting green industry economic development; promote and develop additional strategies to meet the city's sustainability goals and EPA's Industrial Materials Recycling Program goals.	High	Medium-term	pounds or tons of coal combustion products reused/recycled, construction and demolition materials recycled, and GHGs mitigated; # of case studies developed, energy and cost savings	OPRA-Solid and Hazardous Waste	Kendra Morrison	0.1	EPA R8, City of Denver, UCD	Communication with partners and EPA HQ, GHG calculators, informational resources and tools	EPA R8 RCC Strategy and Workplan, RCC Program, Industrial Materials Recycling Program and Implementation Plan
	i. Continue work with the Pepsi Center to promote the goals of the Green Venues Initiative, then expand in to the hospitality sector including restaurants, hotels, meeting planners, and caterers. This work will eventually include efforts with other large venues in the Denver area.	High	Short-term	# of workshops, # of workshop attendees, # of action plans, GHG reductions	OPRA-Solid and Hazardous Waste	Ron Lillich	0.25	Restaurant and lodging associations, Kroenke Sports Enterprises, Meeting Planners International, City of Denver, Colorado Alliance for Sustainability, other venues	EPA Partnership Program tools	RCC Program
	j. Promote the WasteWise Program to the hospitality industry in Colorado in 2008 to reduce the generation of waste, increase recycling, and the purchase of recycled products through workshops jointly sponsored by EPA and the industry.	High	Short-term	# of WasteWise partners, GHGs reduced	OPRA-P2 and Toxics	Anne Marie Patrie	0.25	CO Restaurant Association, CO Hotel and Lodging Association, meeting planners, caterers, CO Venues	WARM GHG calculator, EPA HQ technical assistance - climate profile	None
<b>Goal</b>	<b>Activity</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Measures</b>	<b>Responsible Office</b>	<b>Lead Contact</b>	<b>FTE</b>	<b>Partners</b>	<b>Tools</b>	<b>Directive</b>
<b>B.5</b>	<b>Increase water efficiency and conservation in the residential, commercial, and industrial sectors.</b>									
	a. Support demand-side water efficiency and conservation through the Sustainable Infrastructure and WaterSense Programs by encouraging the distribution and use of water-efficient products, the development of WaterSense model communities, and other outreach efforts.	Medium	Long-term		OPRA-Water-Wastewater	Elaine Lai	0.05	Water Utilities, Sustainable Infrastructure Program, WaterSense Program		Sustainable Infrastructure Program and R8 Strategy (activity 2-1)
	b. Support supply-side water efficiency through the Sustainable Infrastructure Program by encouraging the use of EPA's Conservation Guidelines (1998) to extend the value and life of infrastructure assets, and by encouraging states to promote water efficiency through implementation of CWSRF Policy Memorandum 00-13 and DWSRF Policy Memorandum 03-03.	Medium	Long-term		OPRA-Water-Wastewater	Elaine Lai	0.05	Water Utilities, Sustainable Infrastructure Program		Sustainable Infrastructure Program and R8 Strategy (activity 2-2)



	a. Provide opportunities for the Region 8 staff to increase their knowledge of various climate change issues through conference calls, webcasts, speaking events, workshops, meetings, and/or research materials.	High	Long-term	# of events	OPRA-State Assistance	Laura Farris	0.1	Technical and scientific community	Various communications media	R8 Climate Change Strategic Plan
	b. Develop a "Knowledge Building Series" of handouts on various topics of interest to the region ranging from basic information on climate change to more technical topics such as carbon sequestration.	High	Short-term	# of publications	OPRA-State Assistance & OCPI-Env. Education	Laura Farris & Wendy Dew	...	N/A	Various sources of information	R8 Climate Change Strategic Plan
<b>Goal</b>	<b>Activity</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Measures</b>	<b>Responsible Office</b>	<b>Lead Contact</b>	<b>FTE</b>	<b>Partners</b>	<b>Tools</b>	<b>Directive</b>
<b>B.9</b>	<b>Build external knowledge of climate change science, mitigation, and adaptation.</b>									
	a. After developing the "Knowledge Building Series," share through the Region 8 website and other outreach activities.	High	Short-term	N/A	OPRA-State Assistance & OCPI-Env. Education	Laura Farris & Wendy Dew	...	N/A	Website	R8 Climate Change Strategic Plan
	b. Develop a Climate Change Communication Strategy to guide our efforts to build knowledge of climate change in EPA Region 8.	High	Medium-term	Completion of Strategy	OCPI-Env. Education	Wendy Dew	0.1	Rocky Mountain & Plains Regional Climate Science Education Collaborative	Web, powerpoint	National Environmental Education Act of 1990
	c. Train personnel in the regional office through the Ambassador's Program to deliver presentations on climate change, and mobilize them to various audiences.	High	Short-term	# of people trained; # of speaking events	OCPI-Env. Education	Wendy Dew	...	Rocky Mountain & Plains Regional Climate Science Education Collaborative	Various sources of information	National Environmental Education Act of 1990
	d. Participate in various outreach activities such as Earth Day, Public Health Week, and conferences, and share information on the EPA R8 Website.	High	Short-term	# of outreach activities	OCPI-Env. Education	Wendy Dew	...	Various	Various sources of information	National Environmental Education Act of 1990
<b>Goal</b>	<b>Activity</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Measures</b>	<b>Responsible Office</b>	<b>Lead Contact</b>	<b>FTE</b>	<b>Partners</b>	<b>Tools</b>	<b>Directive</b>
<b>B.10</b>	<b>Future High Potential Activities.</b>									
	a. Identify key greenhouse gas emitting sectors, and target them through various EPA Climate Protection Partnerships and other measures.	N/A	N/A	N/A	OPRA-State Assistance	Laura Farris	N/A	N/A	N/A	N/A
	b. Increase the installed capacity for cogeneration through the Combined Heat and Power Partnership.	N/A	N/A	N/A			N/A	N/A	N/A	N/A
	c. Calculate greenhouse gas emissions data on an ecosystem-wide basis. Transfer the protocol developed for the Greater Yellowstone Area to the San Luis Valley ecosystem.	N/A	N/A	N/A			N/A	N/A	N/A	N/A
	d. Continue providing grants through the Resource Conservation Challenge to further the goals of the Program.	N/A	N/A	N/A	OPRA-Solid and Hazardous Waste	Ben Bents	N/A	N/A	N/A	N/A
	e. Promote the goals of the Green Venues Initiative to other sectors, including municipalities.	N/A	N/A	N/A			N/A	N/A	N/A	N/A
	f. Set up a food waste collection program for management in anaerobic digesters with recovery of energy, and with residuals put into a composting program.	N/A	N/A	N/A			N/A	N/A	N/A	N/A
	g. Develop and plan a workshop for Departments of Transportation and Departments of Environment Quality in 2008 or early 2009 to present the results of the Colorado Department of Transportation's "alternative materials use in highways research," as well as other relevant and useful topics to promote industrial materials recycling and its benefits in Region 8.	N/A	N/A	N/A	OPRA-Solid and Hazardous Waste	Kendra Morrison	N/A	N/A	N/A	N/A

h. Promote the WasteWise Program to the hospitality industry in the other Region 8 States to reduce the generation of waste, increase recycling, and the purchase of recycled products through workshops jointly sponsored by EPA and the industry.	N/A	N/A	N/A	OPRA-P2 and Toxics	Anne Marie Patrie	N/A	N/A	N/A	N/A
i. Implement the WasteWise goals and activities in the regional office and stay abreast of the recycling options available to the regional office through the recycling hauler.	N/A	N/A	N/A			N/A	N/A	N/A	N/A
j. Pursue terrestrial carbon sequestration partnerships and opportunities in high potential areas such as reclamation sites, beetle kill areas, and the San Luis Valley.	N/A	N/A	N/A	OPRA-State Assistance	Laura Farris	N/A	N/A	N/A	N/A
k. Explore partnerships with the City of Denver, University of Colorado Denver, and the Built Green Colorado Program to incorporate more beneficial use of industrial materials in projects across the state.	N/A	N/A	N/A	OPRA-Solid and Hazardous Waste	Kendra Morrison	N/A	N/A	N/A	N/A
l. Work with developers, builders, and others who influence materials use on the Union Station redevelopment project to encourage recycling of coal combustion products, construction and demolition materials, and other materials to support EPA's Construction Initiative.	N/A	N/A	N/A	OPRA-Solid and Hazardous Waste	Kendra Morrison	N/A	N/A	N/A	N/A
m. Partner with the Colorado Department of Transportation (CDOT) to increase the beneficial use of industrial materials in transportation projects across the State.	N/A	N/A	N/A	OPRA-Solid and Hazardous Waste	Kendra Morrison	N/A	N/A	N/A	N/A
n. Pursue the development of algae farms for the production of biofuels through various funding mechanisms.	N/A	N/A	N/A	ECEJ-ENF-AT	Hans Buening	N/A	N/A	N/A	N/A
o. Work with WRAP through state greenhouse gas emissions inventories to support the development of methodologies for sources of VOCs in upstream oil and gas activities from which credible estimates of methane emissions can be derived.	N/A	N/A	N/A	ECEJ-ENF-AT	Cindy Beeler	N/A	N/A	N/A	N/A
p. Increase the number of Diesel Emission Reduction Act (DERA) Grants and Rocky Mountain Clean Diesel Collaborative projects as additional funding becomes available.	N/A	N/A	N/A	OPRA-OAR-ITT	Rebecca Russo	N/A	N/A	N/A	N/A
q. Per a Region 8 Agriculture Strategic Plan, pursue partnerships with State Programs, the USDA, new Agriculture FACA, and others, as well as biofuels research.	N/A	N/A	N/A	Agriculture Advisor	Susanne Stevenson	N/A	N/A	N/A	N/A

**Region 8 Climate Change Activities Matrix - 2008 Update**

**Goal C. Identify and implement goals and priority activities that have the highest potential to increase our capacity to adapt to climate variability.**

Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>C.1</b>	<b>Initiate forums to consider holistic and comprehensive approaches to the management of our water resources to protect water quality and human health in response to the negative effects of climate change.</b>									
	a. Encourage the adoption of watershed/aquifer management principles, including tools that consider groundwater and wetlands, through outreach and technical support to key EPA, State and other federal decision-makers to increase the ability of water managers and municipalities to respond to climate changes.	Medium	Long-term	NA	EPR	Ayn Schmit, Carol Russell	0.5			
	b. Support adaptation in water resource planning efforts through collaborative dialogues with municipal officials, land-use planners, developers, water managers, and other stakeholders to protect long-term water availability and quality for all end users.	High	Medium-term	NA	EPR	Ayn Schmit, Carol Russell	...			
	c. Cooperate with organizations such as the Western Water Policy Program at the Natural Resources Law Center, American Water Works Association, the Colorado SWSI and the Climate Change and Western Water R&D Group to explore ways to mitigate adverse water quality impacts and adaptation methodologies.	High	Short-term	NA	EPR	Ayn Schmit, Carol Russell	...			
Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>C.2</b>	<b>Manage storm water to reduce high intensity runoff from urban areas.</b>									
	a. Encourage all regulated municipalities (generally >10,000 people) to have procedures and policies to retain/detain/infiltrate flows from new impervious surfaces greater than one acre to reduce pollutant loading and flow-related pollution.	?	Short-term	All municipal stormwater permits will include post-construction requirements as they are reissued (from 2008 to 2012).	OPRA-W - WW	Greg Davis	?	CO, MT, ND, SD, UT, WY, Urban Drainage and Flood Control District, Federal facilities in CO	?	Phase 2 Stormwater Rule
	b. Work with regulated federal facilities on construction of facilities with a footprint greater than 1 acre to ensure the facilities are designed, planned and constructed to manage storm water through low-impact procedures and vegetation to reduce pollutant loading and flow-related pollution.									
	c. Encourage that all construction on federal facilities with a footprint >5,000 sq. ft. to be designed, planned and constructed to manage storm water through low-impact procedures and vegetation to reduce pollutant loading and flow-related pollution.	?	Short-term	All construction at Colorado's largest 8 federal facilities will meet design standards by 2008.	OPRA-W - WW	Greg Davis	?	Multiple federal agencies (Army, Navy, Air Force, NOAA, Bureau of Prisons)	?	Section 438 of the Energy Independence & Security Act of 2007

**Region 8 Climate Change Activities Matrix - 2008 Update**

**Goal D. Support our partners in their response to the challenge of climate change through knowledge building, technical assistance, and partnerships.**

Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>D.1</b>	<b>Provide technical assistance to state and tribal agencies that have a role in climate change mitigation and adaptation.</b>									
	a. Work with various agencies in the State of Colorado to implement the goals of the Colorado Climate Action Plan.	High	Short-term	None	OPRA-State Assistance	Laura Farris	0.25	State of Colorado	None	R8 Climate Change Strategic Plan
	b. Work with the State of Utah to implement the recommendations of the Governor's Blue Ribbon Advisory Council on Climate Change.	High	Short-term	None	OPRA-State Assistance	Laura Farris	...	State of Utah	None	R8 Climate Change Strategic Plan
	c. Work with the State of Montana to implement the recommendations of the Governor's Climate Change Advisory Committee.	High	Short-term	None	OPRA-State Assistance	Laura Farris	...	State of Montana	None	R8 Climate Change Strategic Plan
	d. Evaluate the relative goals of the Colorado, Utah, and Montana climate action plans for synergy and transferability.	Low	Medium-term	Report	OPRA-State Assistance	Laura Farris	...	States	None	R8 Climate Change Strategic Plan
	e. Provide outreach to agencies in the States of Wyoming, North Dakota and South Dakota regarding climate change mitigation and adaptation, and the tools, resources, and expertise that EPA has to offer.	Medium	Medium-term	None	OPRA-State Assistance	Laura Farris	...	States	Various	R8 Climate Change Strategic Plan
	f. Provide outreach to tribal agencies regarding climate change mitigation and adaptation, and the tools, resources, and expertise that EPA has to offer.	High	Medium-term	None	OPRA-State Assistance	Laura Farris	...	Tribes	Various	R8 Climate Change Strategic Plan
	g. Provide updates to states and tribes on EPA's policy advances, rulemakings, tools, resources, and training opportunities through various outreach mechanisms.	High	Short-term	None	OPRA-State Assistance	Laura Farris	...	States, Tribes	Various	R8 Climate Change Strategic Plan
Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>D.2</b>	<b>Provide technical assistance to municipalities</b>									
	a. Coordinate a meeting of the Region 8 municipalities that are signatories to the Mayor's Climate Protection Agreement to share best practices and lessons learned.	High	Short-term	Meeting	OPRA-State Assistance	Laura Farris	0.05	ICLEI, SWEEP, CML, UCD	Various	R8 Climate Change Strategic Plan
	b. Form partnerships with various organizations to support programs and initiatives that address climate change at the local level.									
	c. Provide updates to municipalities on EPA's policy advances, rulemakings, tools, resources, and training opportunities through various outreach mechanisms.									
Goal	Activity	Priority	Timeframe	Measures	Responsible Office	Lead Contact	FTE	Partners	Tools	Directive
<b>D.3</b>	<b>Provide technical assistance to our federal partners under the directive of Executive Order 13423.</b>									
	a. Develop an ecosystem-wide protocol for greenhouse gas emission analysis for U.S. Forest Service and the National Park Service lands and operations.	High	FY 2008	Protocol	OPRA P2 and Toxics	Marie Zanolwick	0.5	EPA HQ, U.S. Forest Service Region 2 & Sustainable Ops Program, National Park Service, National Park Service Intermountain Region and its individual parks, NREL	Climate Leaders in Parks (CLIP) tool, WRI GHG Calculator, Climate Leaders Program tools	Executive Order 13423

	b. Develop a greenhouse gas emissions baseline for the Greater Yellowstone ecosystem in partnership with the National Park Service.	High	FY 2008	# of baseline reports, GHG emission reduction plans	OPRA P2 and Toxics	Marie Zanowick	...	EPA HQ, U.S. Forest Service Region 2 & Sustainable Ops Program, National Park Service, National Park Service Intermountain Region and its individual parks, NREL	Climate Leaders in Parks (CLIP) tool, WRI GHG Calculator, Climate Leaders Program tools	Executive Order 13423
	c. Assist the EPA Climate Leader's Program in developing guidance that meets the needs of federal partners, using the U.S. Forest Service as the pilot.	High	FY 2008	None	OPRA P2 and Toxics	Marie Zanowick	...	EPA HQ, U.S. Forest Service Region 2 & Sustainable Ops Program, National Park Service, National Park Service Intermountain Region and its individual parks, NREL	Climate Leaders in Parks (CLIP) tool, WRI GHG Calculator, Climate Leaders Program tools	Executive Order 13423
<b>Goal</b>	<b>Activity</b>	<b>Priority</b>	<b>Timeframe</b>	<b>Measures</b>	<b>Responsible Office</b>	<b>Lead Contact</b>	<b>FTE</b>	<b>Partners</b>	<b>Tools</b>	<b>Directive</b>
<b>D.4</b>	<b>Provide outreach to other Region 8 Tribes to share knowledge of climate change and opportunities to address it.</b>									
	a. Explore opportunities to share indigenous perspectives on climate change with various stakeholders.	High	Short-term	None	OPRA-State Assistance	Laura Farris	0.05	Tribal Assistance program	Various	R8 Climate Change Strategic Plan
	b. Support collaborative efforts to engage tribes in climate change research, regional initiatives, renewable energy development, and participation in carbon trading markets.	High	Short-term	None	OPRA-State Assistance	Laura Farris	...	Tribal Assistance program	Various	R8 Climate Change Strategic Plan