

Beyond the Inventory: Collaborating Across an Ecosystem



October 7, 2010
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The Greater Yellowstone Coordinating Committee



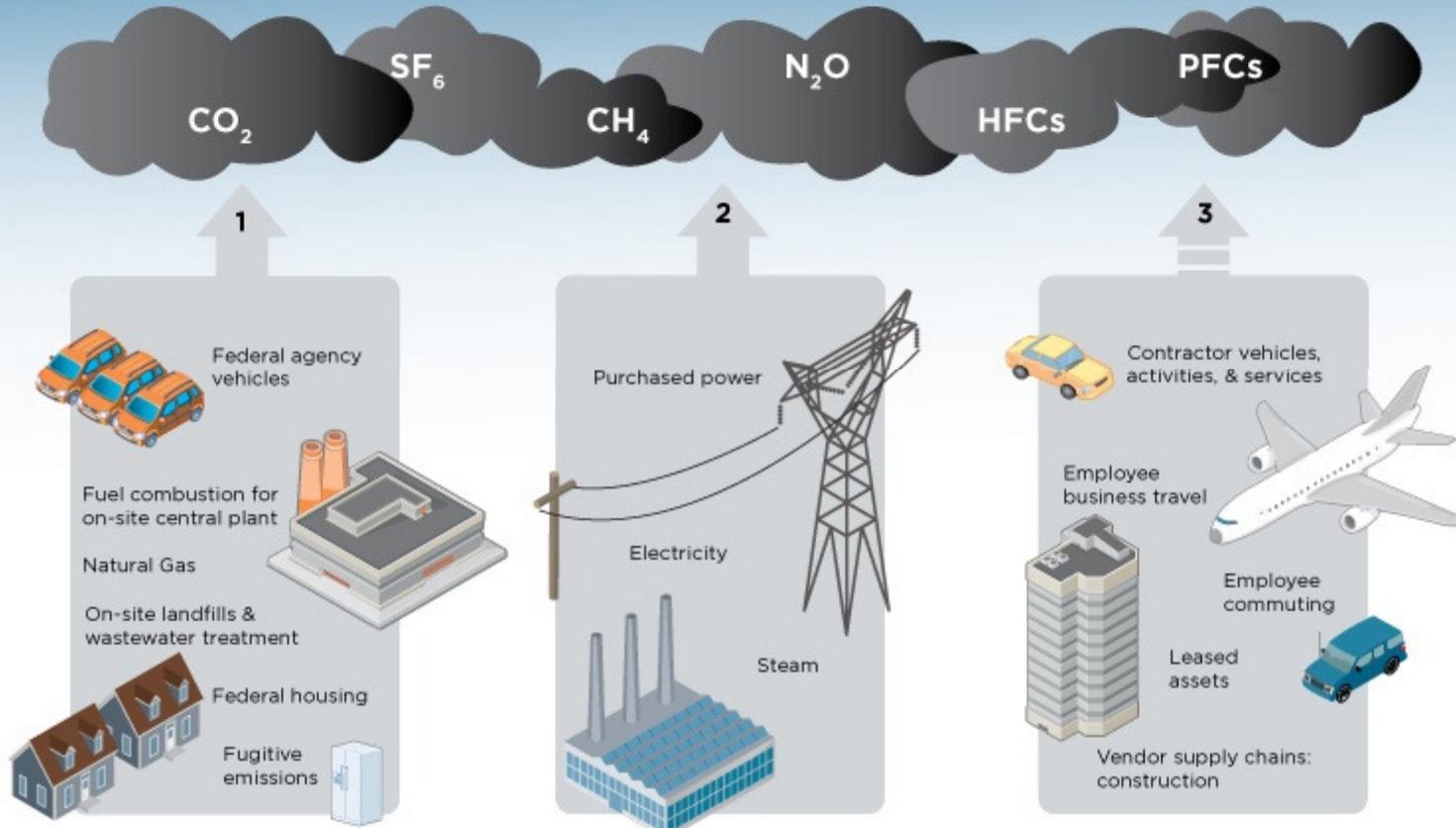


Project Overview

- FY 2007 Baseline
- 2 GHG Inventory tools:
 1. EPA Climate Leaders (USFS and USFWS)
 2. Climate Leadership in Parks – CLIP (NPS)
- Measured Anthropogenic Emissions of:
 - Carbon Dioxide (CO₂)
 - Methane (CH₄)
 - Nitrous Oxide (N₂O)
- Completed in April, 2009



Common Sources of Federal Greenhouse Gas Emissions



SCOPE 1:

Greenhouse gas emissions from sources that are owned or controlled by a Federal agency.

SCOPE 2:

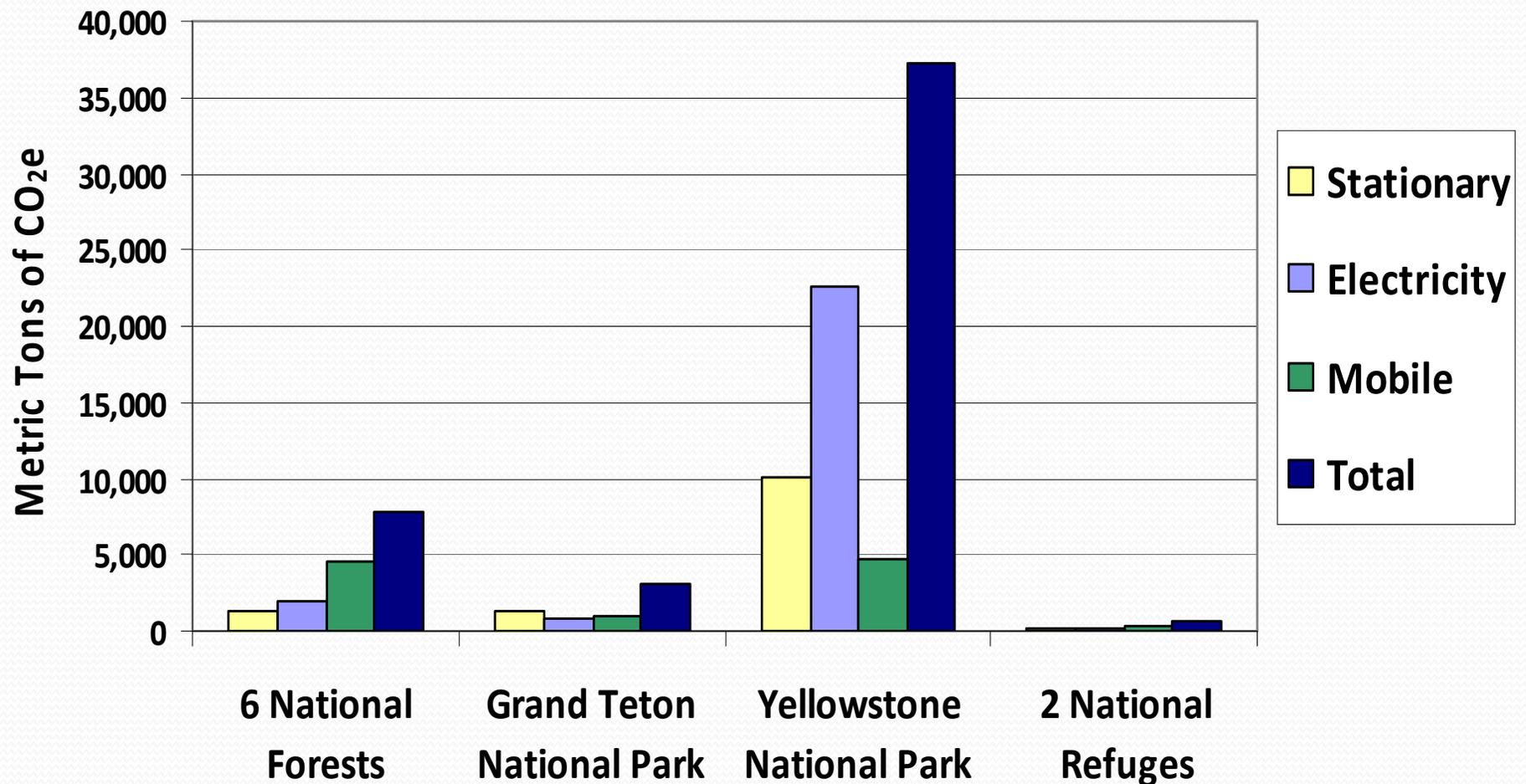
Greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency.

SCOPE 3:

Greenhouse gas emissions from sources not owned or directly controlled by a Federal agency but related to agency activities, such as vendor supply chains, delivery services, and employee travel and commuting.



Total GYA GHG Emissions





Planning for GHG Emissions Reductions

GYCC “Definition of Success”

- 1. Setting and meeting a collective, realistic and credible ecosystem-wide GHG reduction goal**
- 2. Ensuring the capacity and leadership intent to meet the goal**
- 3. Developing/documenting a methodology for GHG accounting and reduction that serves as a model for other footprint areas, other agencies, and the public**



Hidden Challenges





Collaborative, Bottom-Up Action Planning Model





Compiling Potential Actions

GREENHOUSE GAS MANAGEMENT SOFTWARE

COMMON MESSAGING

COMPUTER NETWORKING

ENERGY & WATER AUDITS

WATER METERING

LEAK DETECTION

- ATTACH H₂O METERS TO BUILDINGS TO ESTABLISH BASELINE (SMART METERS)
- 1 year
- UTILITY
- \$200K - 500K
- GHG = LOW - MEDIUM

- IDENTIFY LEAKS IN H₂O DISTRIBUTION INFRASTRUCTURE
- 1 year
- UTILITIES
- \$20K/UNIT - \$100K/UNIT
- GHG = LOW - MEDIUM

Innovation, Creativity, Empowerment, Ownership

Bio-Diesel Fuel Bio-diesel Furnace Composting
Toilets Cultural and Behavioral Education
Conservation Education Double Sided Printing
Set as Default Downsizing and Rightsizing
Energy Audit Employee Shuttle (carpool)
Electric UTV Energy Savings Performance
Contracts Flexible Work Schedules Electric
Vehicles Energy Tracking "bring the bills home"
Install bulletin board in Visitor Center telling
public about sustainable operations at unit
Engine modification to turn engine off after
8min of idle Green Team Less Computer
Upgrade (hardware) Fuel Tracking System HVAC
Regular Inspection Live Feed Teleconferencing/
Webinars (long distance travel reduction)
Hybrid Vehicles Improve Insulation in Buildings
Low Flow Products Idle Reduction Install
gravity-fed Irrigation System Recycling
Implementing a tracking system Leak Detection
(water) Recycling- Propane Key Tags (Red,
yellow, Green) LEED Building Sprinkler
Replacement Low Friction Tires Light Sensor
Installation Telecommuting Reduce unit vehicle
speed by 5 mph of posted speed Limiting/
Eliminating Personal Appliances Transmission

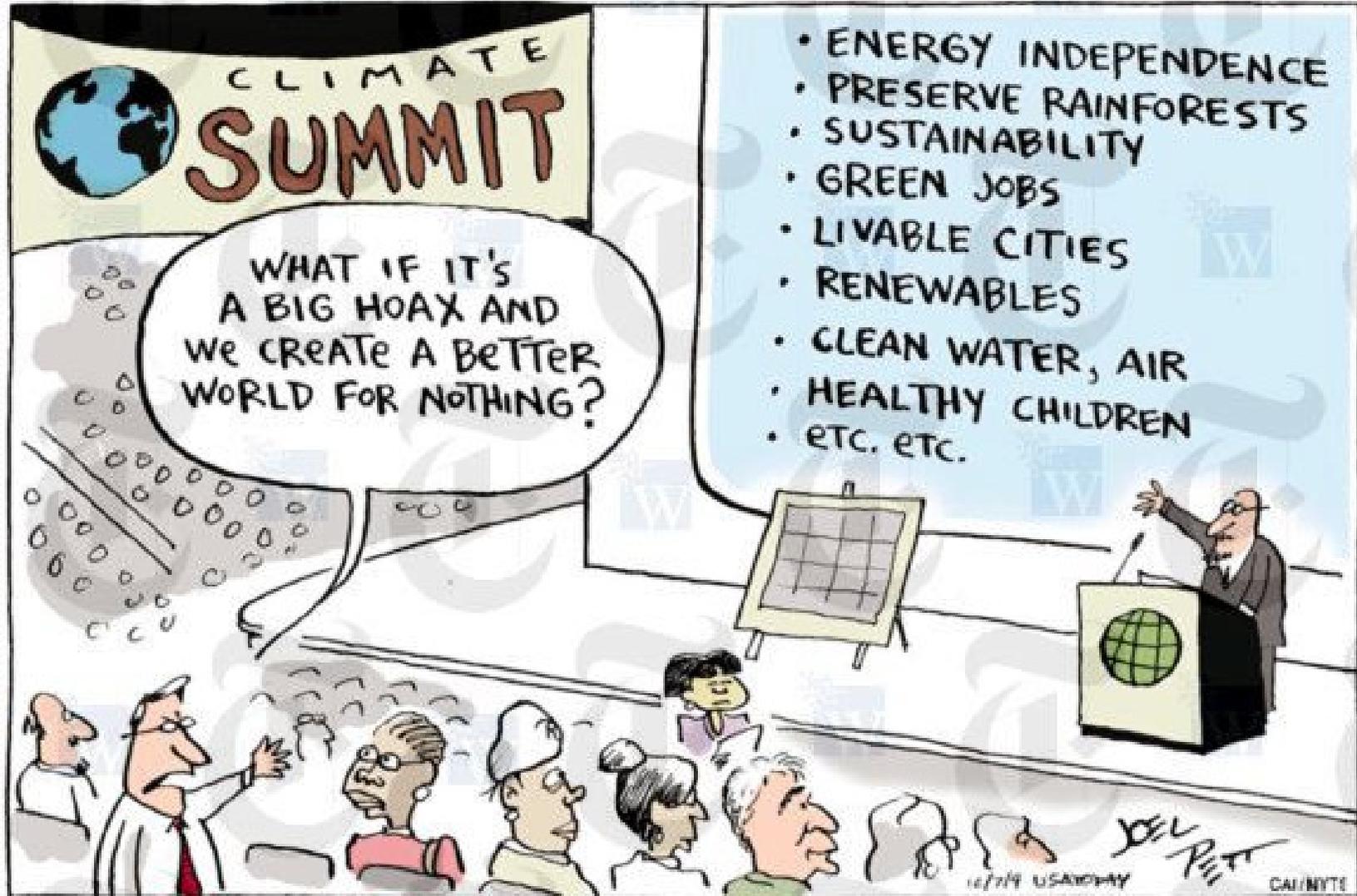
Losses Replacing low mpg with high mpg
vehicles Low Flow Products Travel Education
Riding Bike around town Meters On Buildings
Visitor Idle Reduction Program Scan Gauges
(mpg tracker) Micro hydro Projects Waste
Reduction Tire pressure education/ tire gauges
in vehicles New Leases/ Remodels Incorporate
Energy Efficiency Water Bottle Initiative Use of
ATV to reduce miles driven On-Demand Hot
Water Separation of Yard Waste Use public
transport to meetings is possible Pipe Insulation
(winterization of water system) Employee Bus
Passes Using Ethenol-10 pumps Purchase 100%
Green Power . Using re-refined oil PV Systems .
VTC Replace Appliances . . . Replace Hot water
Heaters . . Smart Thermostat and Lower Temp .
Solar Hot Water Heater , Turning Computers Off
at Night and Weekends . Upgrade Boiler/ HVAC
. Upgrade buildings (general) . Upgrade lighting
and Exit Lights . Utility Bill Clean Up Vending
Miser Water Catchment Water Metering Well
and tank heater to PV Wind Power Window
Blinds Window Replacement Winterization of
Buildings When not Used in Winter, Xeriscaping



By 2020 (Reduction below 2007 Baseline)... GYA-Wide



Overall GHG Reduction	36%-39%	19141 - 20946 MTCO ₂ e
Scope 1	13%-18%	2929 - 4123 MTCO ₂ e
Scope 2	62%-65%	16015 - 16532 MTCO ₂ e
Scope 3	5%-7%	197 - 192 MTCO ₂ e



CartoonArts International: www.nytsyn.com/cartoons



Thank You!
Questions?

GYCC GHG Document Archive:
<http://fedgycc.org/SOSGHG.htm>

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