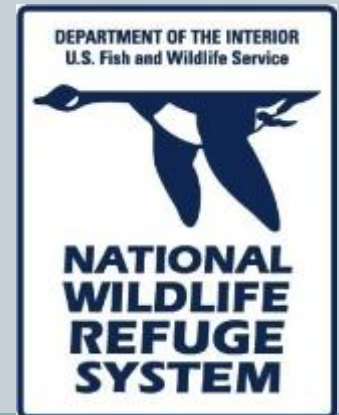


U.S. Fish and Wildlife Service & Its Transportation Program:



**THE CLEAN CITIES MEET THE
FISH AND WILDLIFE SERVICE
WEBINAR
JUNE 4, 2014**



Introducing the Fish and Wildlife Service



**NATHAN CALDWELL, ACTING PROGRAM
MANAGER/TRANSIT AND TRAILS COORDINATOR**

ANDREW VALDEZ, TRANSPORTATION ANALYST

**SCOTTY MARTIN, ACTING CHIEF, FWS GENERAL
SERVICES BRANCH-OVERSEES FLEET MANAGEMENT**

KURT JOHNSON, FWS CLIMATE CHANGE SCIENTIST

**JOANNA WEBB, NATIONAL WILDLIFE REFUGE SYSTEM
PARTNERSHIPS COORDINATOR**

USFWS and the National Wildlife Refuge System

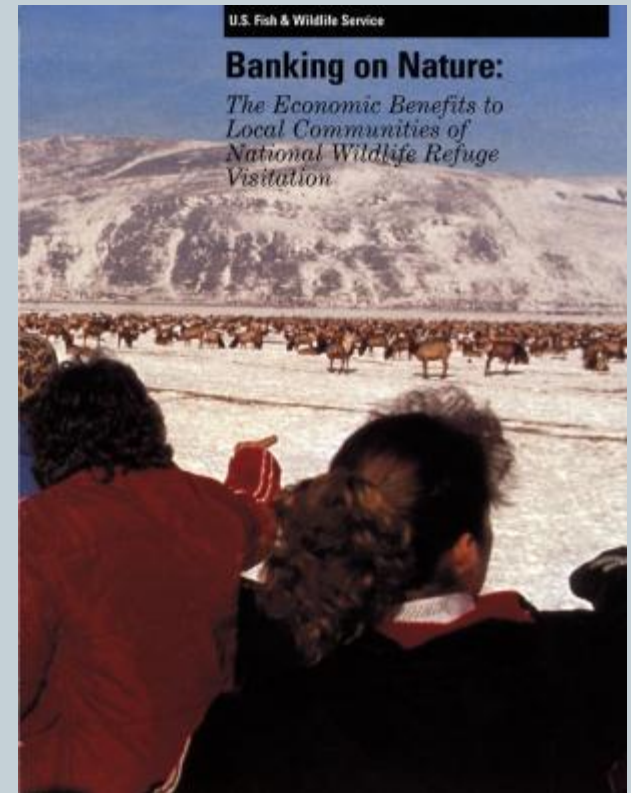
- 561 NWRs and Wetland Management Districts
- In every state and territory, most rural or remote
- ~350 NWRs units open to visitation
- We report over 46M visitors for 2013
- > 35% since 2006



Banking on Nature



- Banking on Nature 2013 – economic impact report
- 45 M visited lower 48 states NWRs
- \$2.4 B in local sales
- 35,000 employed
- \$793M in employment income
- 72% non-consumptive uses
- 77% of visits non-local
- \$343M tax income



Fish and Wildlife Service Transportation



- ~ 5000 miles of public use roads
800 miles paved
- ~ 1900 miles of trails
- 16 internal transit systems
 - run by volunteers, or non-profits
 - concessionaires
 - FWS staff
- Most access and circulation by private vehicle or hiking



Fish and Wildlife Service Transportation Funding and Programs



- **Federal Land Highway program since 1998**
 - TEA-21 - Refuge Roads --\$20M/year**
 - SAFETEA-LU Refuge Roads \$29M/year**
 - MAP-21- Federal Lands Transportation Program**
 - FWS allocation \$30M/year**
- **From 1998-2012 ~\$75 M in FHWA and FTA discretionary funds**
- **Staff – 2 in Headquarters, 10 in Regional Offices**
- **DOT Partners – Federal Land Highways (HQ and 3 Division Offices), the Volpe Center**

Important Current Activities



Planning for the future

- Transportation planning at various levels in partnership with Federal Highways; strong connection with the NWRS Conserving the Future Vision

Encouraging Transit and Trails Use

- Providing choices where it makes sense
- Aligning transit and trail initiatives with lowering greenhouse gas emissions
 - Visitor travel within refuges is at least 90% of a station's overall emissions

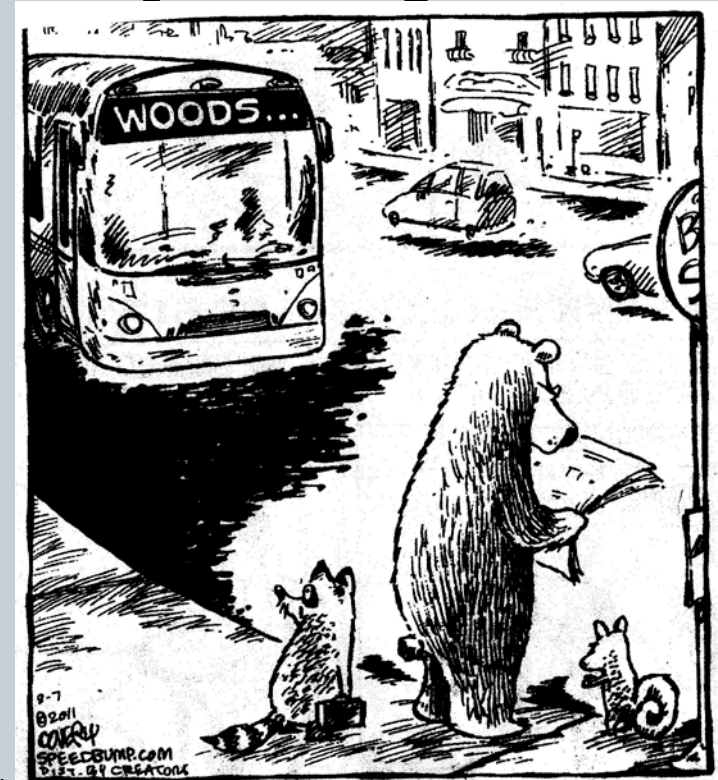


Photo credit: Steve Hillebrand

Federal Lands Transportation Planning

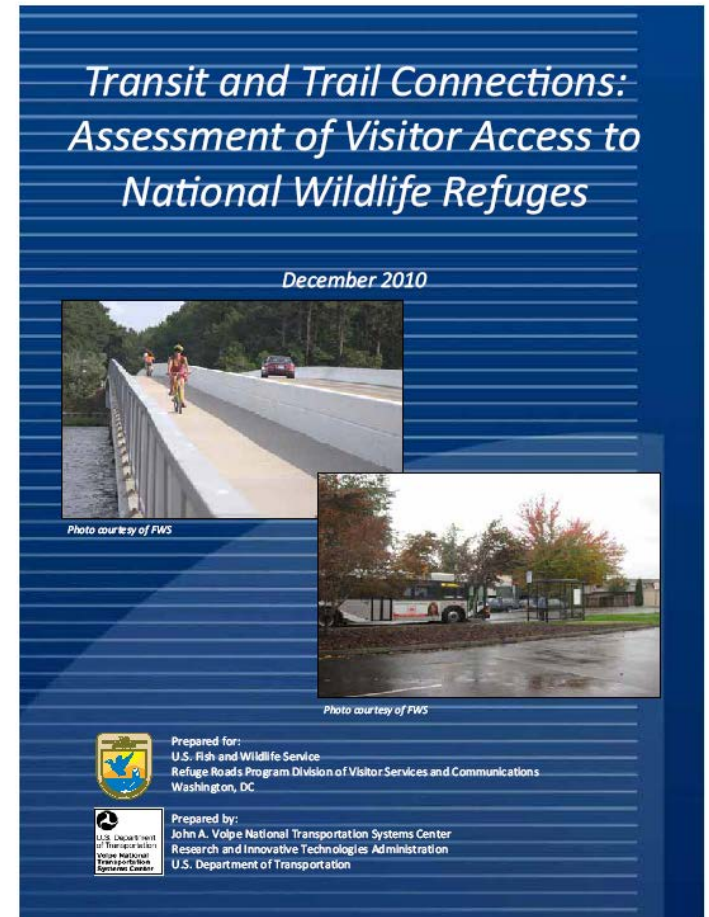


- FWS, NPS, BLM, Forest Service, Corps of Engineers and Federal Lands Highway partnering on Long Range Transportation Plans
- Required as of TEA-21, Reinforced in SAFETEA-LU Strengthened in MAP-21 Both Title 23 & 49
- Consistent with State and MPOs
- Must be Multi-modal



Transit and Trails Access to NWRs

- A Transit and Trails matrix tabulated transit and trail access rankings for 142 selected urban and suburban Refuges
- Done by Volpe Center
- Used for FWS Paul S. Sarbanes Transit in the Parks proposals



The FTA's Late Sarbanes TRIP (RIP)



- The Paul S. Sarbanes Transit in the Parks (and other Public Lands!) 2006-2012
- Provided ~\$300 M in FTA funds to National Parks, Forests and Wildlife Refuges, BLM areas and Corps of Engineers reservoirs and local gov't partners.
- Vehicles, ferries, non motorized facilities, ITS, Transit facilities and planning were funded.
- Research, technical assistance and scholars
- Interagency solicitation, review and evaluation

The FWS and Clean Fuel Vehicles



- Current Transportation Program funding from Sarbanes TRIP
- Low Environmental Impact Vehicle Tram Study
- Small E-Tram evaluations (Scott Lian)
- New Patuxent Tram
 - https://www.fbo.gov/index?s=opportunity&mode=form&id=bbdd0eb6b01c0cc544c6429b173b7c26&tab=core&_cview=1
- And then???



Contact Information



Nathan Caldwell
U.S. Fish and Wildlife Service
Trails and Transit Coordinator
Arlington, VA 22203

Nathan_caldwell@fws.gov

- **phone (703) 358-2205**
- **fax (703) 358-2517**

Resources Available at HQ Office



**Using new and emerging technologies can be tricky!
HQ Office can provide analysis and support for:**

- Appropriate alternative fuel and/or system design based on field conditions
- Validation tests (FAST-SIM, through NREL National Lab)
- Emissions and GHG modeling (GREET, through ARGONNE National Lab)
- Life cycle cost analysis (capital costs, operations and maintenance)

We can help with decision making!

Fleet Program Overview

U.S. Fish and Wildlife Service



Overview

- Operates 7,125 mostly Government Owned Vehicles
- Widely distributed in mostly remote locales
- Diverse mission requirements
- Large inventory of specialty vehicles
- 42,000 volunteers each year
- Aversion to ethanol use



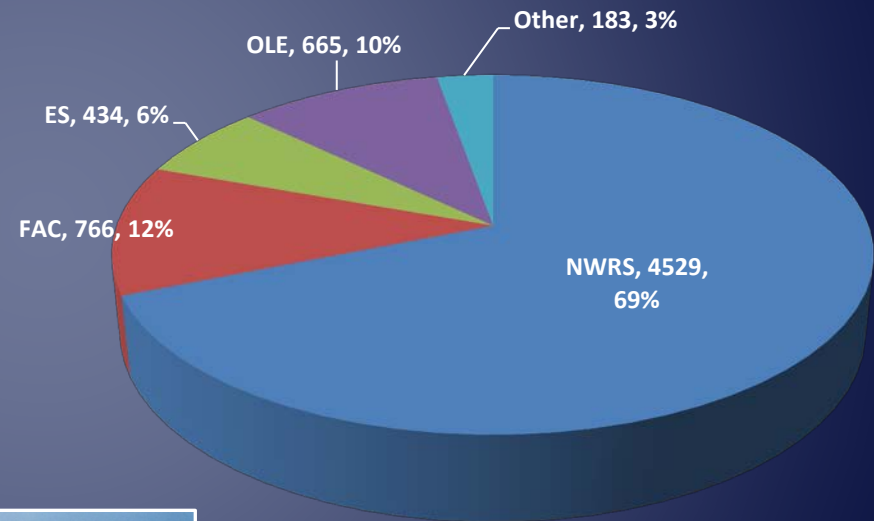
Fleet Program Overview

U.S. Fish and Wildlife Service



Fleet Composition – By FWS Program

- National Wildlife Refuge System
- National Fish Hatchery System
- Ecological Services
- Office of Law Enforcement
- Others

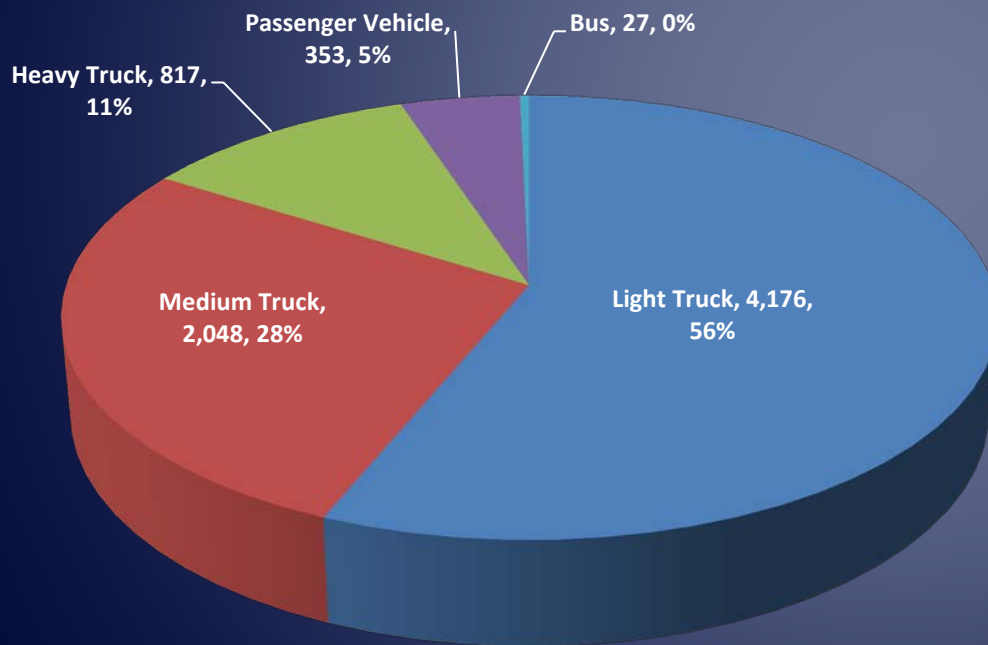


Fleet Program Overview

U.S. Fish and Wildlife Service



Fleet Composition – By Vehicle Type



- Top end of vehicle/model spectrum
- Heavily equipped for rugged terrain
- Low utilization
- Extended replacement cycles



Fleet Program Overview

U.S. Fish and Wildlife Service



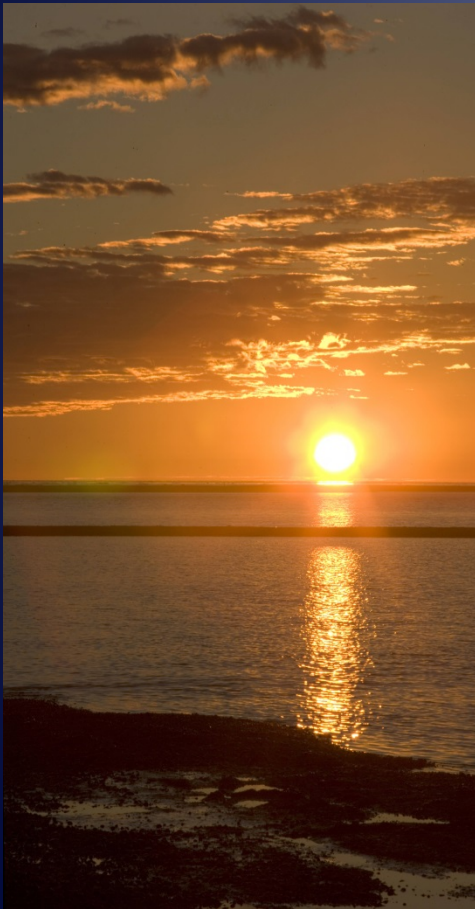
Fleet Model Structure

- Operations supported by appropriated funds
- 95% “owned”
- Decentralized management approach
- Acquisitions – 100% Autochoice



Fleet Program Overview

U.S. Fish and Wildlife Service



Fleet Goals

- Reduce petroleum fuel consumption 2% per year – from fiscal year 2005 baseline
- Increase alternative fuel use by 10% per year
- Improve fleet management approach/effectiveness
- Right-size the fleet
- Serve as a model to other Agencies and the Public

Fleet Program Overview

U.S. Fish and Wildlife Service



FWS Fleet Challenges



- Access to alternative fuels
- Older vehicle fleet
- Locations in sensitive areas
- Fleets in mostly remote locations
- Distribution of fleet
- Fleet technical/management expertise
- Vehicle Options – hybrids, AFVs, etc



Climate Change and the US Fish and Wildlife Service

Clean Cities-FWS Webinar
Wednesday, June 4, 2014

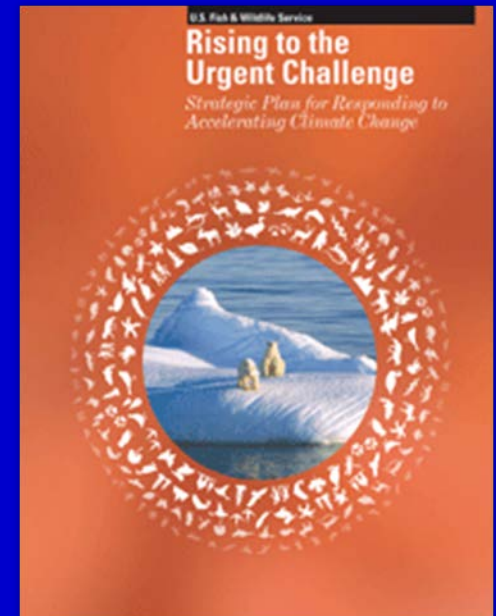
Kurt Johnson, National Climate Change Scientist
Office of Science Applications, USFWS
kurt_johnson@fws.gov





Climate Change & USFWS

- Although our Southeast Region (Region 4) was involved with biological carbon sequestration issues in the mid-1990s, the Service began to address climate change in earnest in 2008 with listing of the polar bear under ESA
- The Service developed a Climate Change Strategic Plan “Rising to the Urgent Challenge: Strategic Plan for Responding to Accelerating Climate Change” and released it publicly in September 2010



Climate Change & USFWS

- Strategic Plan has 3 strategies to address climate change:

- *Adaptation*

- *Mitigation*

- *Engagement*



Goals - Adaptation

- Goal 1 - Develop and implement a National Fish, Wildlife, and Plants Climate Adaptation Strategy (NFWPCAS)
- Goal 2 - Develop long-term capacity for biological planning and conservation design, and apply it to conservation at landscape scales (Landscape Conservation Cooperatives, LCCs)
- Goal 3 -- Plan and deliver landscape conservation actions that support climate change adaptation by fish and wildlife
- Goal 4 – Develop monitoring and research partnerships



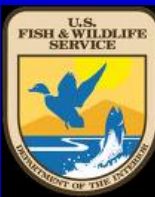
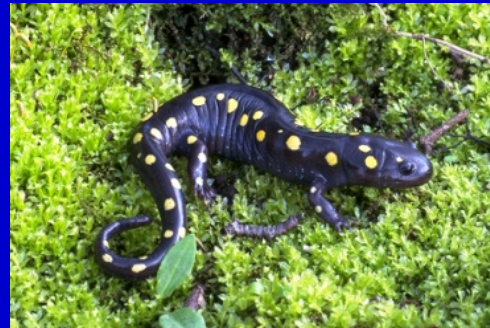
Goals - Mitigation

- Goal 5 – Change our business practices to achieve carbon neutrality by the Year 2020
- Goal 6 – Build capacity to understand, apply, and share biological carbon sequestration science; and we will work with partners to implement carbon sequestration projects in strategic locations



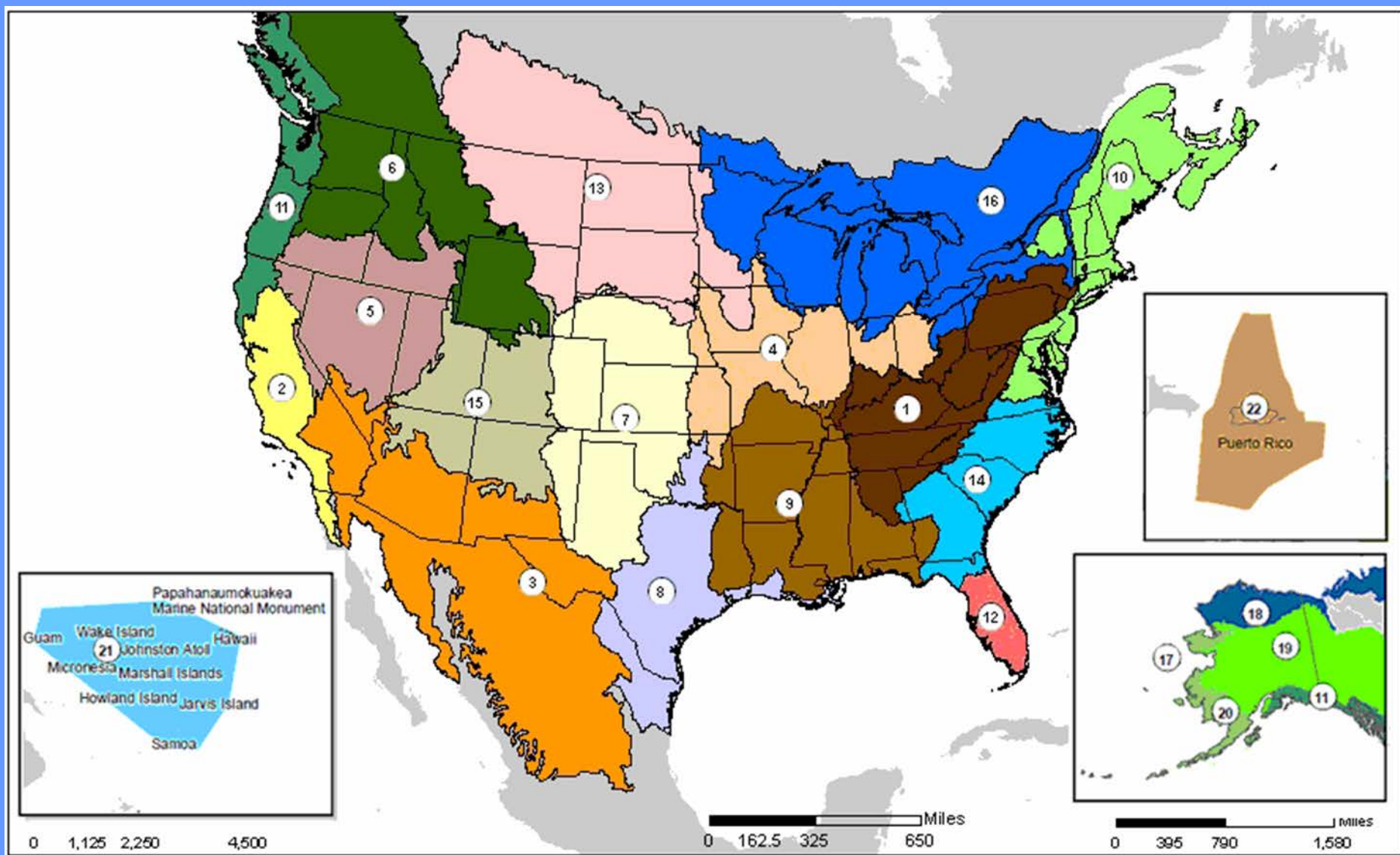
Goal - Engagement

- Goal 7 – We will engage Service employees; our local, State, Tribal, national, and international partners; our key constituencies; and everyday citizens in a new era of collaborative conservation in which, together, we seek solutions to the impacts of climate change on fish and wildlife



What are LCCs?

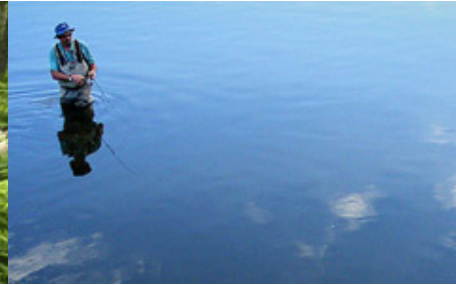
- **Bridging organizations**: Link scientists and managers and facilitate collaboration among organizations on shared goals
- **Fundamental units of planning and adaptive science**: Provide science, information, and tools needed to design and deliver conservation at landscape scales
- **Applied conservation science partnerships**: Networks of conservation partners working collaboratively towards common landscape vision and goals





NATIONAL *fish, wildlife & plants*
CLIMATE ADAPTATION STRATEGY

*Shared solutions to
protect shared values*



Photos: Chase Fountain, James Jordan, George Andrejko

NATIONAL *fish, wildlife & plants*
CLIMATE ADAPTATION STRATEGY

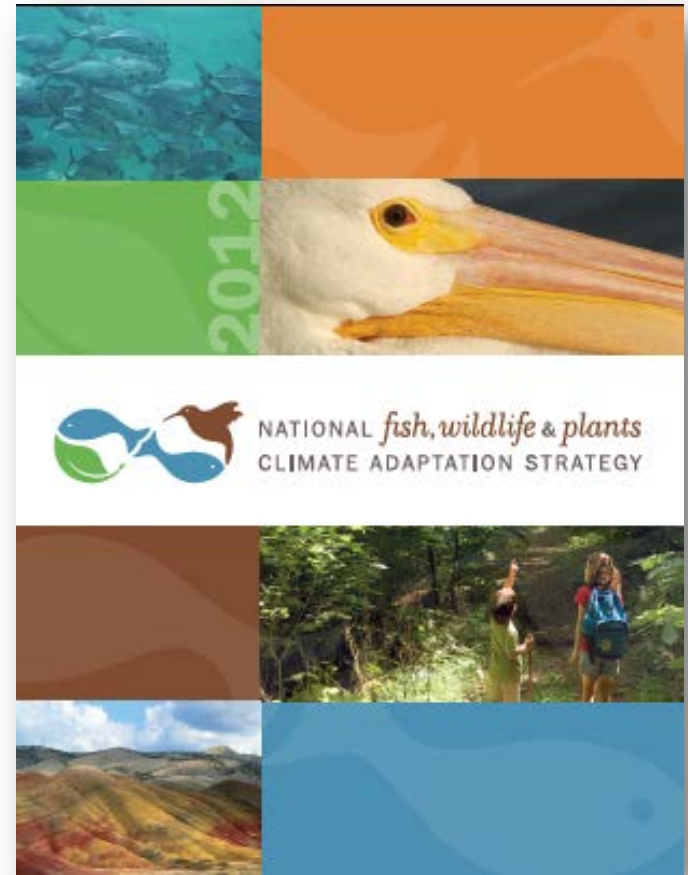
A Partnership of U.S. Federal, State and Tribal Fish and Wildlife
Agencies
with support from the
Association of Fish & Wildlife Agencies

www.wildlifeadaptationstrategy.gov



What is it?

A framework for coordinated action by multiple partners over the next 5-10 years to reduce risks and impacts of climate change on U.S. natural resources and the people that depend on them.





Goals of the Strategy

1. Conserve and connect habitat
2. Manage species and habitats
3. Enhance management capacity
4. Support adaptive management
5. Increase knowledge and information
6. Increase awareness and motivate action
7. Reduce non-climate stressors

7 Goals
22 strategies
100+ actions
Progress Lists
Case studies

Mitigation – Change our business practices to achieve carbon neutrality by the Year 2020

Sustainability:

- The Strategic Sustainability Performance Plan (SSPP) supports Interior's mission by integrating sustainability within Department operations and reducing our greenhouse gas (GHG) emissions...
- The Department is committed to meeting and or exceeding compliance with environmental and energy statutes, regulations, executive orders (EOs), and other applicable requirements. This commitment is evidenced by the implementation of a department-level environmental management system (EMS) to manage and track compliance with and progress on achieving the environmental and energy performance goals in EO 13514 and EO 13423.



Mitigation – Change our business practices to achieve carbon neutrality by the Year 2020

5-Year Strategy to Mitigate the Carbon Footprint of the National Wildlife Refuge System (Draft).
Includes recommendations on:

- Consumed Energy
- Motor Vehicle Fleet Transportation*
- Heavy Equipment Operations*
- Employee Commuter Travel*
- Employee Business Travel*
- Visitor Vehicle Travel*
- Procurement
- Owned Aircraft
- Solid Waste Disposal

* strong nexus with **Clean Cities**... emphasis on alternative fuels, etc.

* can assist USFWS in achieving both mitigation and adaptation goals



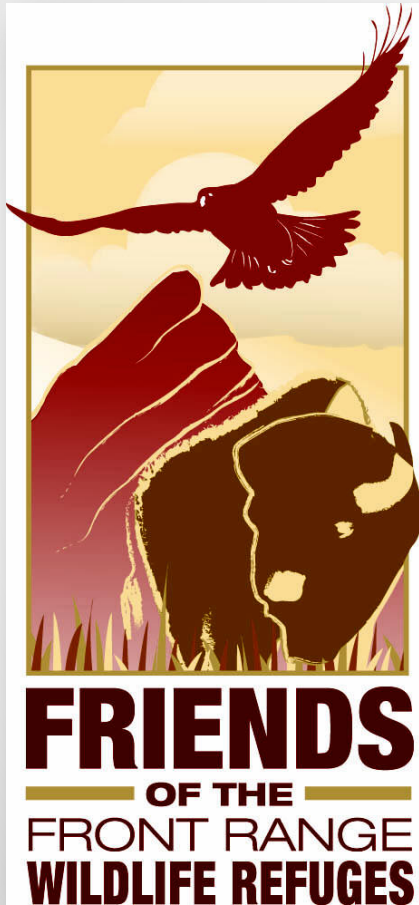
Working with Friends Organizations



Joanna Webb
National Friends & Partnership Coordinator
National Wildlife Refuge System



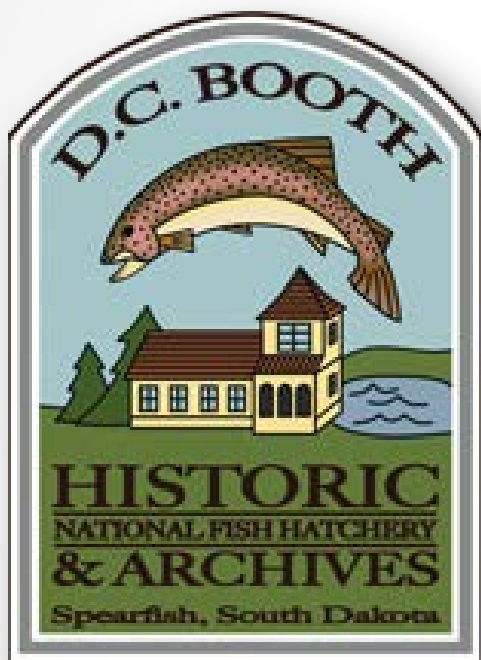
Friends Organizations are Unique



- New Friends Policy defines Friends as “**unique**” partners and outlines how we work with them
- Required **501c3** nonprofit status
- Organizational **mission** that supports a Service site, complex of refuges/hatcheries/offices, or Service program
- Formalized in the NEW Friends Partnership Agreement



Friends Stats



- **Refuges** – 195 Friends
 - Friends of Alaska NWR's – serve 16 refuges
- **Fisheries** – 33 Friends
 - National Fisheries Partnership - 1
 - Fish and Wildlife Conservation Offices - 1
- **NCTC** - 1
- **Migratory Birds Office** – 1



What do Friends do?



- Engage local communities in conservation
- Volunteer support for visitor services and on the ground projects
- Outreach and education
- Special events
- Raise funds
- Lobby
- Administration and operation of a nonprofit organization



Friends Only Activities



- Soliciting for **donations**
- **Fundraising**
 - **nature** stores, special events, nonprofit grants, raffles
- **Lobbying**
- Operating **nature** stores
- Administration and operation of a **nonprofit organization**



Clean Cities and US Fish and Wildlife Service: Opportunities for Collaboration



Linda Bluestein
National Clean Cities Program

Mike Scarpino
US DOT, Volpe Center

U.S. DEPARTMENT OF
ENERGY | Energy Efficiency &
Renewable Energy

1. Linda Bluestein, DOE Clean Cities: Introduction to Clean Cities Program
2. Mike Scarpino, DOT Volpe Center: Clean Cities Tools & Resources
3. Andrew Hudgins, NREL: Clean Cities National Park Initiative
4. Kevin Wood, San Diego Regional Clean Cities: Local Clean Cities Coalition Operations



PRIMARY GOAL:

Mass market adoption of alternative fuel and advanced technology vehicles and smarter driving habits

Reduced Petroleum Use in Transportation

Reduced Greenhouse Gas Emissions

Reduced Dependence on Foreign Oil

Improved US Energy, Economic, and Environmental Security

PRIMARY
GOAL
RESULTS

Implement national policies and initiatives by facilitating change on a National and Local basis



Local

Develop a Franchise model (designate CC coalitions) so that approach and message are consistent everywhere, but with attention to local market conditions and priorities (provide strategic direction and comprehensive training to franchisees)

National

Provide a national unbiased source of info

Provide tools, experts to address barriers and solve problems

Develop Corporate Partnerships with Industry and National Fleets

Increase awareness and publicize success through mass media and outreach

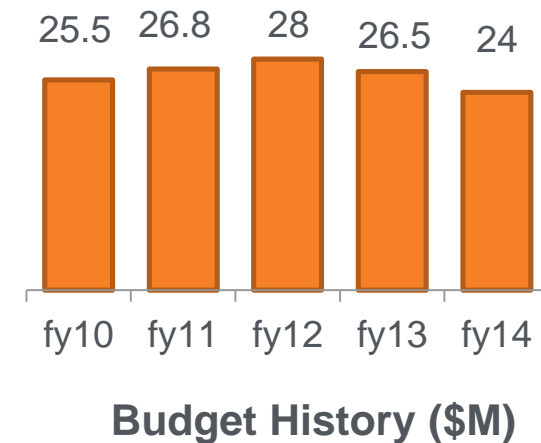
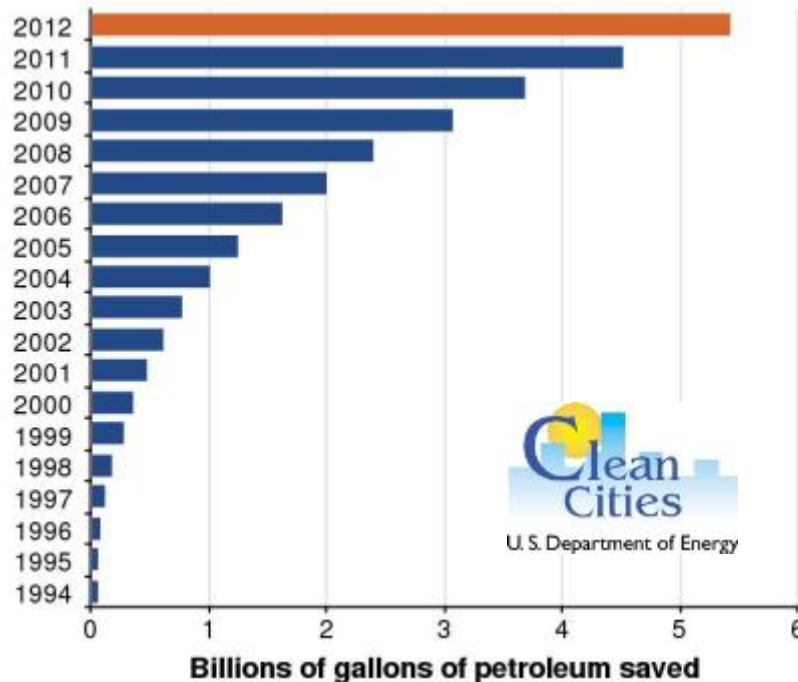
Provide financial assistance to jump start markets and incentivize private investment



Benefits of Clean Cities Approach



- Nearly **6 billion GGE** of Petroleum Reduction benefits since 1993
- Interfacing with nearly **18,000 public and private stakeholders**
- Coordination with key community and business leaders
- Identification of potential fleet and funding partners
- Facilitating Alternative Fuel Infrastructure development
- Collecting data and tracking progress
- Influencing local /regional/state policies and strategies

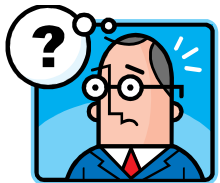




Local Community/Coalition Support: DOE helps convene key community and business leaders to develop and implement projects, leverage resources, and address local barriers



Public Information, Outreach, and Education: DOE-developed tools help consumers save money on fuel cost and help fleets understand their options for cost-effective alternatives to gasoline and diesel fuel



Technical & Problem Solving Assistance: DOE experts help local leaders address permitting and safety issues, technology shortfalls, and other project implementation barriers



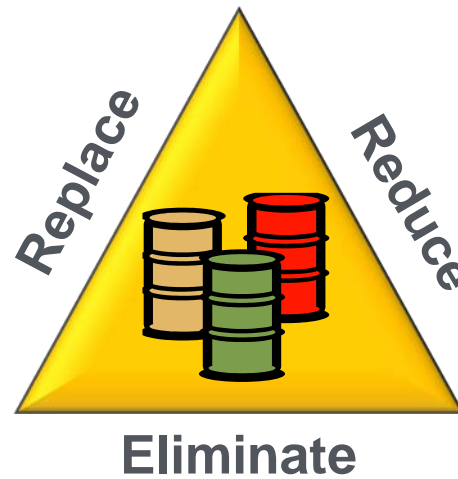
Competitively-Awarded Financial Assistance: Federal cost-share encourages initial private sector match and long-term investment

Alternative Fuels

Electric Vehicles
Biodiesel
Ethanol
Hydrogen
Propane
Natural Gas

Idle Reduction

Heavy-Duty Trucks
School & Transit Buses
Light-Duty Vehicles



Fuel Economy

More Fuel efficient vehicles,
adopting smarter driving and
vehicle purchasing habits



Hybrids

Light- and heavy-duty
Electric hybrids
Plug-In hybrids
Hydraulic hybrids

Forming Local Community Partnerships



~ 100 coalitions serving 78% of the US population

Clean Cities Coalitions



Thousands of stakeholders from businesses, city/state governments, transportation industry, community based organizations, utilities and fuel providers

Population: 4,432,192

Area: 3,012 sq. mi.

Boundaries: District of Columbia; Maryland counties: Frederick, Montgomery, Prince George. Works cooperatively with bordering coalitions in Virginia and Maryland.

Designated: October 21, 1993

Alternative Fueling Stations:

- Biodiesel (B20 and above): 8
- Natural Gas: 10
- Ethanol (E85): 21
- Electric: 137
- Hydrogen: 1
- Propane: 12

Annual Greenhouse Gas Emissions

Avoided:* 4,567 tons of CO₂

Annual Petroleum Savings:*

1,331,759 gasoline gallon equivalents



- Alternative Fuel Vehicles (91%)
- Fuel Economy Improvements (8%)

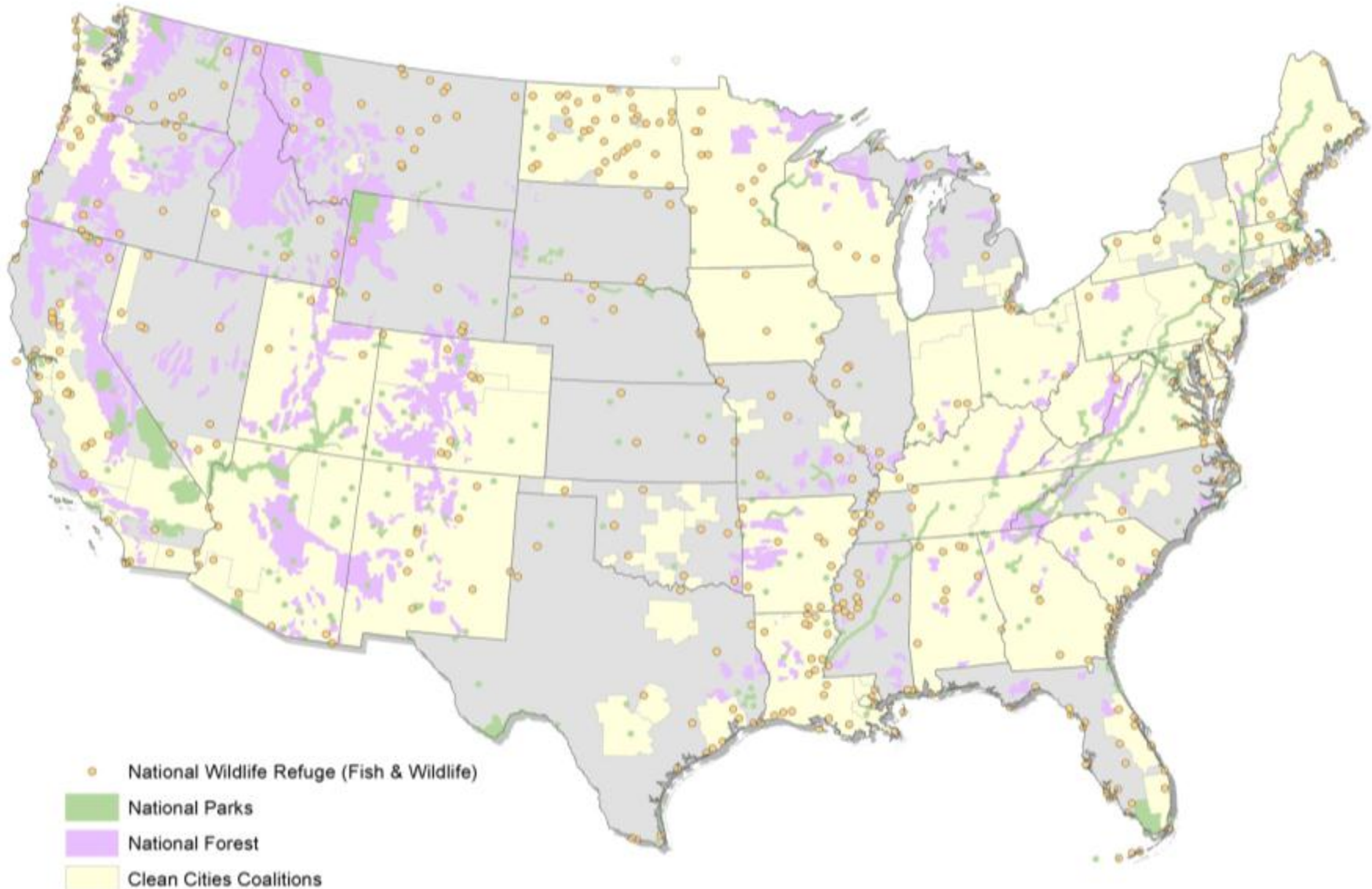
Greater Washington Region Clean Cities



*Ron Flowers
Coordinator*



Clean Cities, National Parks and National Wildlife Refuges Locations



Clean Cities Web Resources



cleancities.energy.gov

afdc.energy.gov

fueleconomy.gov

Clean Cities

Clean Cities

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COALITIONS

FINANCIAL OPPORTUNITIES

INFORMATION RESOURCES

COORDINATOR TOOLBOX

NEWS

EVENTS

[EERE](#) » [Clean Cities](#)

 [Printable Vers](#)

Building Partnerships to Reduce Petroleum Use in Transportation

Clean Cities advances the nation's economic, environmental, and energy security by supporting local actions to reduce petroleum consumption in transportation. A national network of nearly 100 Clean Cities [coalitions](#) brings together stakeholders in the public and private sectors to deploy alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and emerging transportation technologies.



NEWS

United States' Clean Energy Patent Indicates
October 31, 2012

New Fast-Charging Standard Released for Vehicles
October 24, 2012

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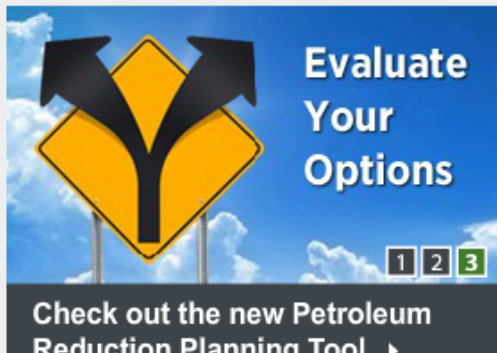
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EVENTS

Clean Fleet Technologies Conference
November 15, 2012

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FEATURED PUBLICATIONS



Evaluate Your Options

1 2 3

Check out the new Petroleum Reduction Planning Tool ▶

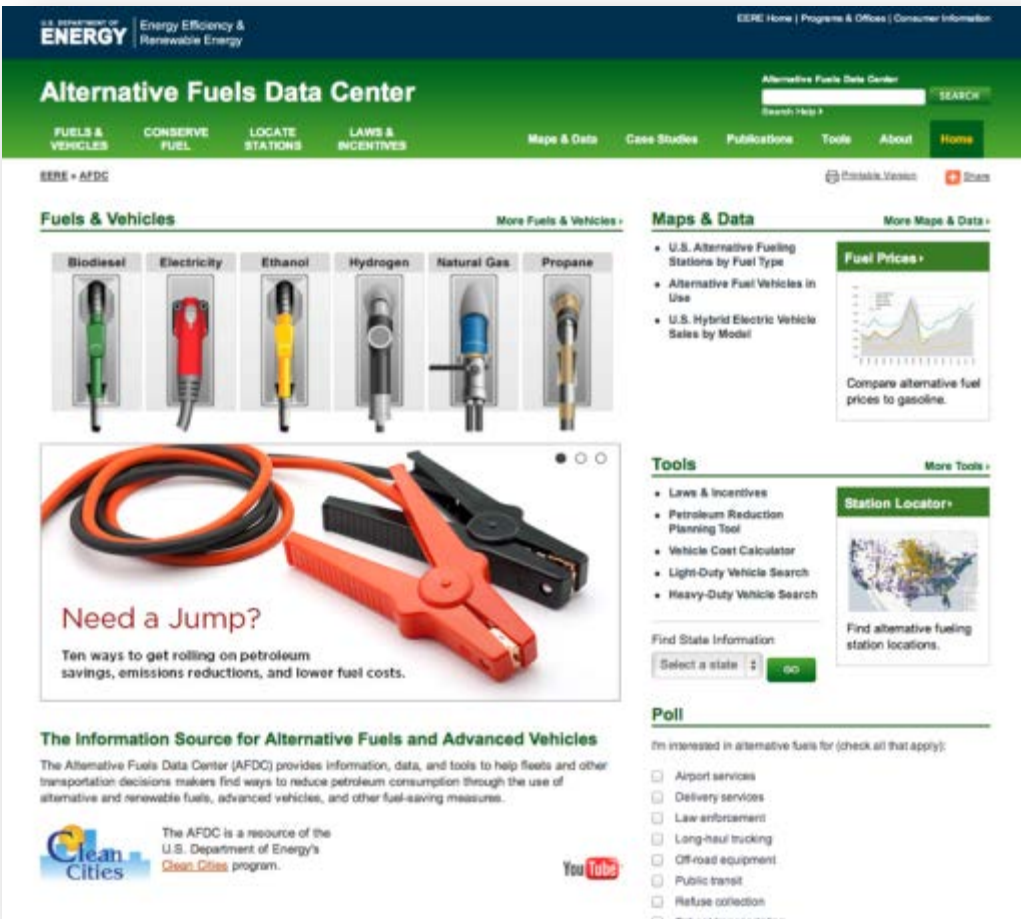
FIND MY LOCAL COALITION

Enter ZIP Code or City, State ▶



[Coalition Contacts ▶](#)

[Program Contacts ▶](#)

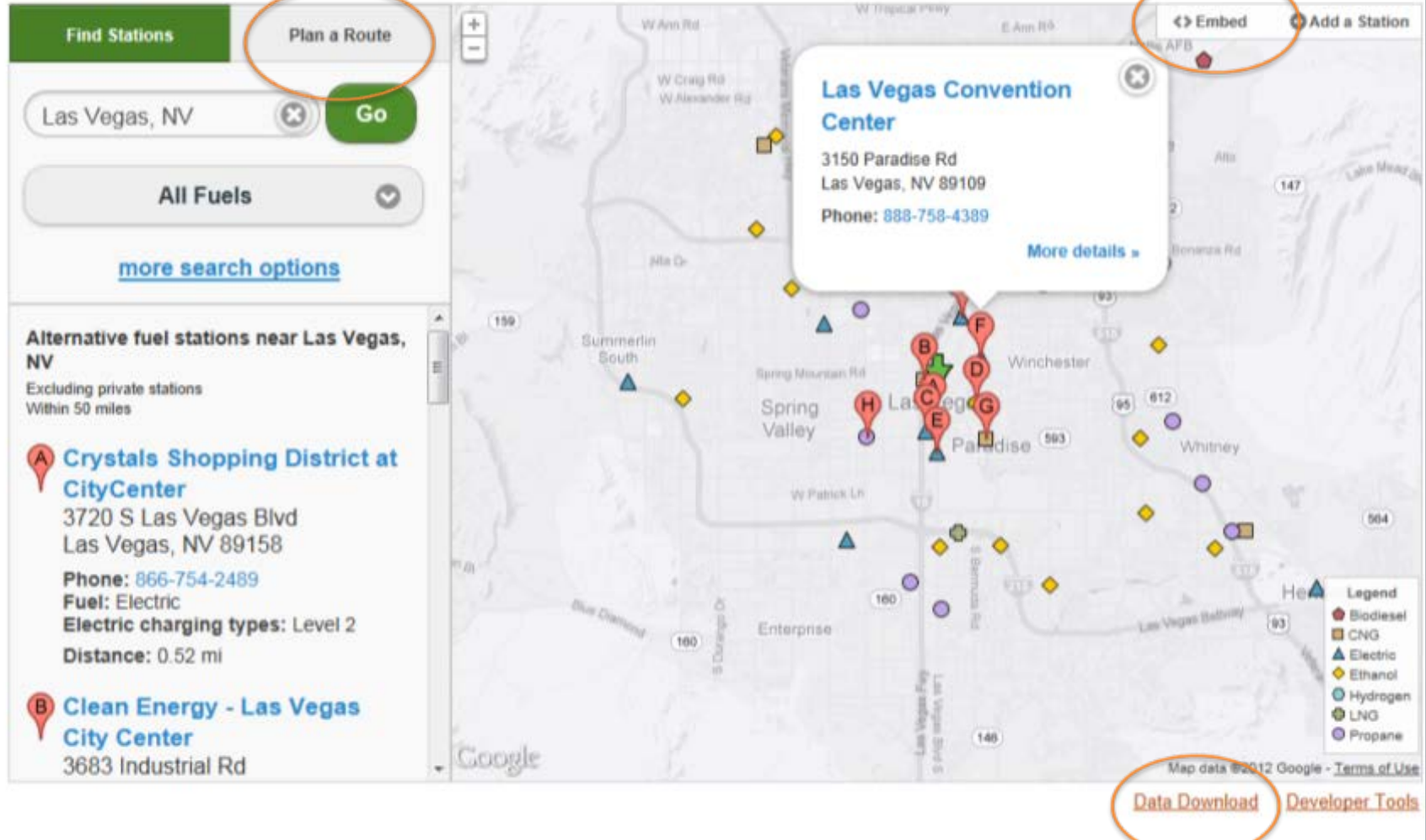


The screenshot shows the homepage of the Alternative Fuels Data Center (AFDC). At the top, it features the U.S. Department of Energy logo and navigation links for Home, Programs & Offices, and Consumer Information. The main header includes categories like Fuels & Vehicles, Conserve Fuel, Locate Stations, and Laws & Incentives, along with a search bar. Below the header, there are sections for 'Fuels & Vehicles' with icons for Biodiesel, Electricity, Ethanol, Hydrogen, Natural Gas, and Propane; 'Maps & Data' with a 'Fuel Prices' graph and a 'Station Locator' map; 'Tools' with various calculators and search tools; and a 'Poll' section with a list of services. A large image of jumper cables is featured with the text 'Need a Jump? Ten ways to get rolling on petroleum savings, emissions reductions, and lower fuel costs.'

- Alternative Fuel Price Report
- Alternative Fuel Station Locator
- Cost Calculators
- Data, Analysis, and Trends
- Idle Reduction Equipment Listing
- Incentives and Laws
- Searchable Document Database
- State-specific Web pages
- Technology Bulletins & Newsletters
- Vehicle Searches

Alternative Fueling Station Locator

Find alternative fueling stations near an address or ZIP code or along a route in the United States. Enter a state to see a station count.



Find Stations **Plan a Route**

Las Vegas, NV **Go**

All Fuels

[more search options](#)

Alternative fuel stations near Las Vegas, NV
Excluding private stations
Within 50 miles

A Crystals Shopping District at CityCenter
3720 S Las Vegas Blvd
Las Vegas, NV 89158
Phone: 866-754-2489
Fuel: Electric
Electric charging types: Level 2
Distance: 0.52 mi

B Clean Energy - Las Vegas City Center
3683 Industrial Rd

Las Vegas Convention Center
3150 Paradise Rd
Las Vegas, NV 89109
Phone: 888-758-4389
[More details](#)

Legend

- Biodiesel
- CNG
- Electric
- Ethanol
- Hydrogen
- LNG
- Propane

Map data ©2012 Google - [Terms of Use](#)

[Data Download](#) [Developer Tools](#)

“AFLEET Tool” to Analyze Costs & Benefits of AFVs



- Examines light-duty & medium/heavy-duty vehicle
 - Petroleum use
 - GHG emissions
 - Air pollutant emissions
 - Cost of ownership
- Contains 15 fuel/vehicle technologies
 - Conventional: gasoline, diesel
 - Hybrid: gasoline HEV, diesel HEV, diesel hydraulic hybrid
 - Plug-in electric: PHEV, EREV, EV
 - Alternative fuel: B20, B100, E85, LPG, CNG, LNG, LNG/diesel pilot ignition
- AFLEET Tool & its user manual available at:
<http://greet.es.anl.gov/afleet>



Alternative Fuels Data Center

SEARCH

FUELS & VEHICLES
CONSERVE FUEL
LOCATE STATIONS
LAWS & INCENTIVES
Maps & Data
Case Studies
Publications
Tools
About
Home

[EERE](#) » [AFDC](#) » [Tools](#) [Printable Version](#) [Share](#)

Petroleum Reduction Planning Tool

This planning tool helps your vehicle fleet reduce petroleum consumption and greenhouse gas (GHG) emissions. Create a comprehensive plan for your fleet by using several savings methods. If your fleet includes multiple vehicle types, add more vehicles to each method.

ASSUMPTIONS

[SET GOAL](#)
[CLEAR PLAN](#)

[LOG IN TO SAVE/VIEW PLANS](#)
[START NEW PLAN](#)

| Savings Methods | | Petroleum Reduction gal/yr | GHG Reduction tons CO ₂ /yr | Fuel Cost Savings \$/yr | Impact on Plan percent |
|---|--|----------------------------|--|-------------------------|------------------------|
| Replace Vehicles | ADD ANOTHER | 3,220 | 18 | \$500 | 100% |
| Replace 10 midsize gas cars with 8 midsize cars using ethanol (E85) 80% of the time | edit delete | 3,220 | 18 | \$500 | 100% |
| Use Alternative Fuel in Existing Vehicles | ADD TO PLAN | 0.00 | 0.00 | \$0.00 | 0% |
| Reduce Idling | ADD TO PLAN | 0.00 | 0.00 | \$0.00 | 0% |
| Reduce Mileage | ADD TO PLAN | 0.00 | 0.00 | \$0.00 | 0% |
| Drive Efficiently | ADD TO PLAN | 0.00 | 0.00 | \$0.00 | 0% |
| Total savings from plan per year | | 3,220 gallons | 18 tons of CO ₂ | \$500 | 100% |

Annual Petroleum Reduction

gallons

Annual Greenhouse Gas Reduction

tons of CO₂

● Petroleum reduction goal

Alternative Fuels Data Center

FUELS & VEHICLES CONSERVE FUEL LOCATE STATIONS LAWS & INCENTIVES Maps & Data Case Studies Publications Tools About Home

EEER • AFDC [Desktop Version](#)

Tools

The Alternative Fuels Data Center offers a large collection of helpful tools. These calculators, interactive maps, and data searches can assist fleets, fuel providers, and other transportation decision makers in their efforts to reduce petroleum use.

Calculators

- Vehicle Cost Calculator**
Compare cost of ownership and emissions for most vehicle models. [mobile](#)
- Petroleum Reduction Planning Tool**
Create a plan for your fleet to reduce petroleum consumption and emissions.
- GREET Fleet Footprint Calculator**
Calculate your fleet's petroleum use and greenhouse gas emissions footprint.
- PEV Readiness Scorecard**
Assess your community's readiness for the arrival of plug-in electric vehicles.

Interactive Maps

- Alternative Fueling Station Locator**
Locate alternative fueling stations and get maps and driving directions. [mobile](#)
- TransAtlas**
Analyze vehicle densities and locations of fueling stations and production facilities.
- BioFuels Atlas**
Compare feedstocks and analyze biofuel production by location.
- Truck Stop Electrification Sites**
Locate truck stops with electrification sites to reduce the need for idling. [mobile](#)
- Coalition Locations**
Find Clean Cities coalitions and contact information for coordinators.

Data Searches

- Light-Duty Vehicle Search**
Compare light-duty alternative fuel vehicles, electric vehicles, and hybrids.
- Heavy-Duty Vehicle and Engine Search**
Find medium- and heavy-duty alternative fuel vehicles, engines, and hybrid systems.
- Fuel Properties Comparison**
Compare alternative fuel properties and characteristics.
- Laws and Incentives Search**
Search for laws and incentives related to alternative fuels and advanced vehicles.
- Find a Car**
Compare fuel efficiency, costs, carbon footprints, and emissions. [mobile](#)
- State Information**
Find state information about alternative fuels and advanced vehicles.

Widgets

Get alternative transportation widgets for your website, blog, or social network.

Data Downloads

Download data related to alternative fuels and advanced vehicles.

Alternative Fueling Station Locator

Use the embed function on the [station locator](#) to add this tool to your website. You can customize the height and width, as well as set a default fuel type and search area.



Vehicle Cost Calculator

Share a tool to calculate annual fuel cost and greenhouse gas emissions for alternative fuel and advanced technology vehicles.



Biodiesel Vehicle Cost Calculator

Share a tool to calculate annual fuel cost and greenhouse gas emissions for biodiesel vehicles.



CNG Vehicle Cost Calculator

Share a tool to calculate annual fuel cost and greenhouse gas emissions for compressed natural gas vehicles.



Flex Fuel Vehicle Cost Calculator

Share a tool to calculate annual fuel cost and greenhouse gas emissions for flexible fuel vehicles.



Electric Drive Cost Calculator

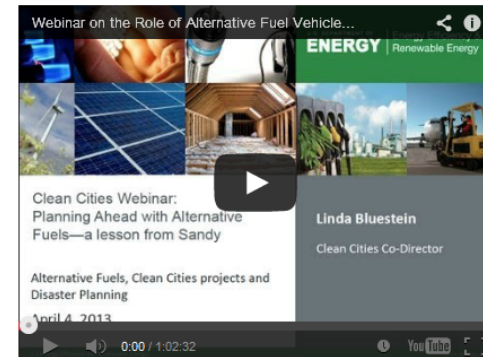
Share a tool to calculate annual fuel cost and greenhouse gas emissions for hybrid and plug-in electric vehicles.



- EV Quarterly Discussions
- Clean Cities Tools and Resources
- Anatomy of a Work Truck
- National Parks Initiative
- Ethanol Industry Overview
- AFLEET Tool Demo and Overview
- Station Locator
- CMAQ
- Role of Alt. Fuel Vehicles in Emergency Preparedness
- National Clean Fleets Partnership

Webinar on the Role of Alternative Fuel Vehicles in Emergency Preparedness

The Role of Alternative Fuel Vehicles in Emergency Preparedness webinar was presented on April 4, 2013, by Linda Bluestein, national Clean Cities co-director; Jeff Pillon, National Association of State Energy Officials; Rita Ebert, Greater Long Island Clean Cities coalition; and Bill Sheaffer, Valley of the Sun Clean Cities. To view or download more presentations, return to the [webinar archives](#).



[Text version](#)

Presentation slides: [Part I](#), [Part II](#), [Part III](#), and [Part IV](#)

Upcoming Webinars: <http://www1.eere.energy.gov/cleancities/toolbox/webinars.html>

Past Webinars: http://www1.eere.energy.gov/cleancities/toolbox/training_archives.html

Clean Cities Technical Response Service

Phone: 1-800-254-6735

E-mail: technicalresponse@icfi.com

Hours: 9:00 a.m. – 6:00 p.m. EST



Clean Cities National Parks Initiative



Andrew Hudgins, NREL

History of DOE-NPS Partnership



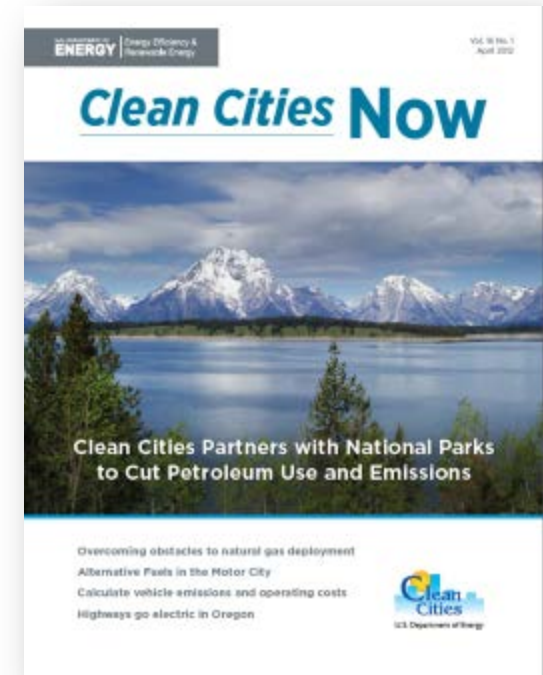
- DOE has a history of supporting AFVs in the NPS (1999-2006)
 - FY1999 – AFV projects in 20 parks
 - Technical assistance for Glacier Red Bus fleet
 - Electric Utility Vehicles in 12 parks
 - Technical assistance for Great Smoky Mountains HEV bus and HEV ranger vehicles
 - Technical assistance for Grand Teton & Yellowstone HEVs
 - Technical assistance provide for Zion propane bus program and idle reduction program



Clean Cities National Parks Initiative



- 2010 DOE-NPS Interagency Agreement
 - Five-year funding assistance
- **Objective:** Support visible projects that reduce petroleum consumption, vehicle greenhouse gases, and other emissions.
- **Goals:** Educate park visitors, employees, and communities about the benefits of using cleaner, more efficient vehicles and renewable and alternative fuels.
- **A critical component of the CCNPI is leveraging the impact from influencing visitors.**

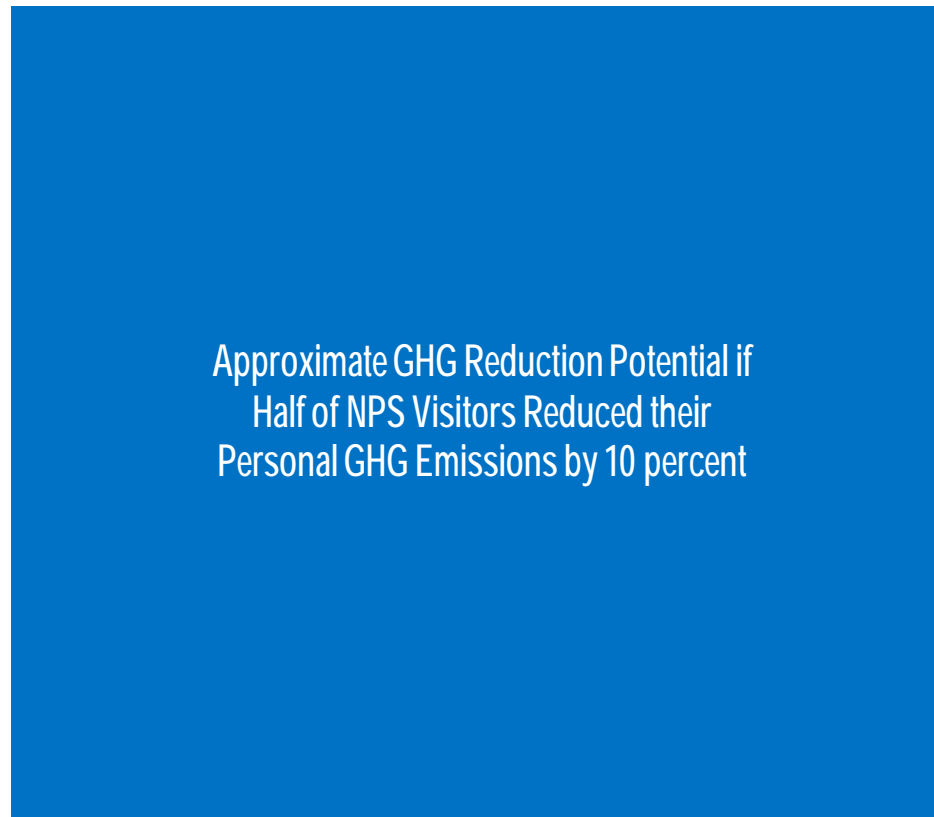


Leveraging NPS Outreach Opportunities



Broader Waves of Change

- █ ← Approximate NPS Scope 1 and 2 GHG Emissions
- █ ← Approximate Visitor Vehicle GHG Emissions



If **half** of NPS *visitors* reduced their personal GHG emissions by **10%**, the reduction would be **several** hundred **times greater** than the **total** NPS emissions created by the **use & purchase** of *energy/fuel*.

Projects to Date - Summary

- 22 National Park Service Units
 - 18 Clean Cities Coalitions
 - 75 million annual visitors
 - Leveraging impact from influencing visitors
 - Direct 59,000 GGEs reduced annually
 - Direct 370 MTCO₂e reduced annually
- Plus . . .
 - Technical Assistance
 - ❖ AFVs, Idle Reduction
 - Community Outreach/Advocacy
 - ❖ Broad community opportunities
 - Partnership Development
 - ❖ Alternative fuel industry partners
 - Funding Assistance
 - ❖ Proposal development



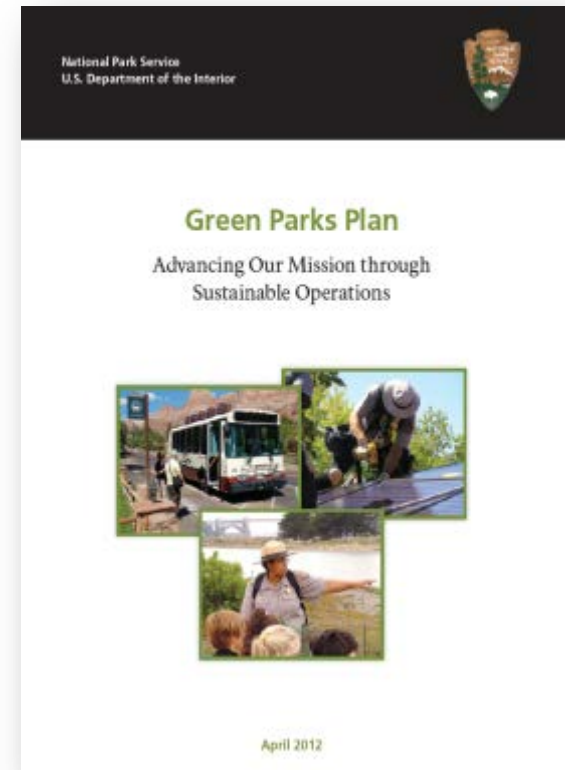
www.cleancities.energy.gov/national_parks.html

Broader DOE Support for the Green Parks Plan



- **Goal #5 - Green Our Rides**

- The NPS will transform our fleet and adopt greener transportation methods.
- The NPS will evaluate and transform the size, types of vehicles, and technologies used in its fleet.
- The NPS will increase the use of high-efficiency and low-GHG emitting vehicles and will reduce fuel consumption by 20% by 2015 (from 2005 baseline).
- The NPS will support alternative commuting practices, including employee telework.
- The NPS will reduce GHG emissions attributable to official travel.



<http://www.nps.gov/greenparksplan/>

DOE Partnership Critical To Meeting NPS Goals



- Identifying and funding critical, high visibility projects
- Implementing the Green Parks Plan
 - Green Our Rides Objective
- Providing support for Climate Change Action Plan goals and objectives
- Fostering innovation and improved fleet management
- Leveraging key government and industry partnerships
- Building and strengthening relationships between local NPS units and Clean Cities Coalitions
- Providing education, outreach, and training to NPS staff, concessionaires, and visitors



Green Rides Toolkit



- Green Rides Success Stories
- Tip Cards/ Driver Pledges
- Staff Talking Points, Fact Sheets and Newspaper Inserts covering:
 - Alternative Fuels
 - Driving Best Practices
 - Idle Reduction
 - Other Fuel Reduction Strategies
- Leadership Letters
- No Idling Policies
- Idle Reduction Decals
- Alternative Fueling Station location directions for park websites
- Additional Resources and Beneficial Links

www.cleancities.energy.gov/greenrides



Greening Our Rides

The National Park Service is working to address climate change through a number of strategies, including a sustainable approach to transportation. The NPS is collaborating broadly on these efforts with partners, concessionaires, visitors, and surrounding communities. By "Greening Our Rides," the NPS will cut emissions, conserve fuel, better protect the resources under our stewardship, and demonstrate sustainable transportation strategies to millions of NPS visitors.

Climate Change and Transportation

The transportation sector is responsible for a significant portion of U.S. greenhouse gas (GHG) emissions. Highway vehicles release about 1.8 billion metric tons of GHGs into the atmosphere each year, mostly in the form of CO₂. Each gallon of gasoline burned creates 20 pounds of CO₂, and a typical vehicle produces about 10 to 15 tons per year. Transportation is the largest source of GHG emissions, accounting for almost 20 percent of the total energy-related CO₂ in the United States in 2012.

The NPS, about 90 percent of GHG emissions (up to 250,000 tons in 2012) are attributable to visitors, including from vehicle fuel and equipment, travel, lodging, concessionaire, and business travel. When you visit, you are also contributing to the NPS's carbon footprint. To help reduce our carbon footprint, we are working with concessionaires, partners, and neighboring communities to reduce our carbon footprint. We are also working with visitors to reduce their carbon footprint. We are also working with concessionaires, partners, and neighboring communities to reduce our carbon footprint.

You Can Be Part of the Progress

All NPS employees can join the effort to Green Our Rides, whether through conversations with visitors, fuel-efficient operations of their vehicles, climate-friendly commuting, or the many other opportunities for action. The approaches listed below are some of our primary strategies, and many can be implemented immediately.

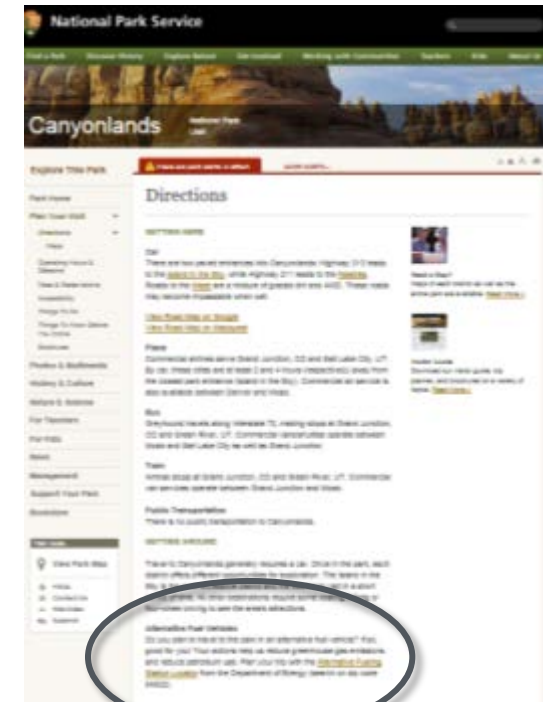
Idle Reduction: Idling a vehicle unnecessarily increases fuel consumption, produces air pollutants, and wastes money.



Green Our Rides Visitor Participation

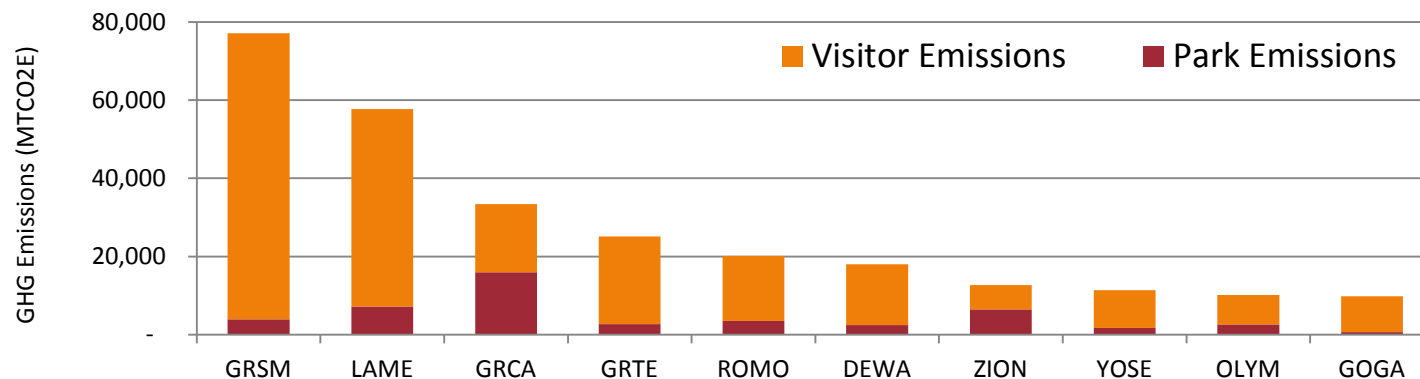


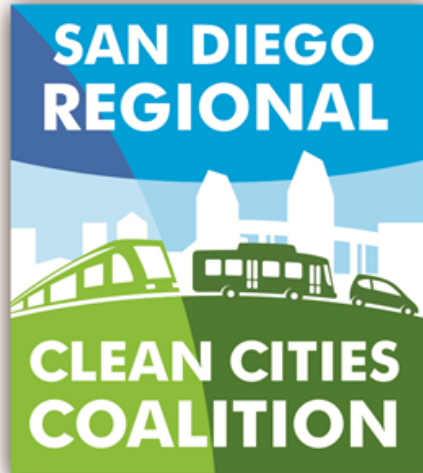
- Visitor participation multiplies positive efforts
- Adding the Alternative Fueling Station Locator to nps.gov directions for visitors
- Clean Cities projects and collaboration within the community
- Providing opportunities for biking, shuttling and walking and encouraging visitor participation in Green Rides efforts



Alternative Fueling Station Locator

Park and Visitor GHG Emissions from Most Visited CFP Parks





USFWS – Working with your Local Clean Cities Coalition

Kevin Wood, Coordinator
kevin.wood@energycenter.org
Ph: 858-244-7295

June 2014



Forming Local Community Partnerships

~ 100 coalitions serving 78% of the US population

Clean Cities Coalitions



Thousands of stakeholders from businesses, city/state governments, transportation industry, community based organizations, utilities and fuel providers

Clean Cities Coordinators: The Face of Clean Cities At the Local Level

- **Community Champion** for Petroleum Reduction
- **Go-To Source** for Alternative/Advance Vehicle Technology & Supporting Fueling Infrastructure Deployment Information and Strategies
- Help Steer/Lead **community planning and implementation efforts**
- Attract and maintain an **active membership of local stakeholders**
- Encourage **implementation** of Clean Cities technologies
- **Develop** regulatory, business and legislative strategies
- **Represent** the coalition in public and private forums
- Secure and leverage diversified **funding**
- **Establish** and implement **coalition goals**
- **Manage** and oversee **projects**
- Perform **education and outreach**



Clean Cities Stakeholders

Coalitions are made up of local and national stakeholders:

Consumers and Critical Service Providers

- Federal, State, Municipal Transportation, Environmental and Energy Agencies
- Vehicle and Engine Manufacturing Partners, Vehicle Dealerships
- Fuel Equipment Suppliers and Providers
- Private Light-duty and Heavy-duty Fleets (e.g., trucks, refuse haulers)
- Alternative Fuel and Clean Air Advocacy Organizations
- School Districts, University/Campus Fleets
- Airports, Transit Agencies
- Taxi Companies, Shared Ride Services
- General Public, Local Businesses



Coalitions Are Unique!

| Coalition Organization Type | # of Coalitions |
|---|-----------------|
| Standalone Nonprofit | 43 |
| Hosted in Nonprofit or Community Service Organization | 12 |
| Hosted in Council of Governments, Metropolitan Planning Organization, or Regional Planning Commission | 15 |
| Hosted in City Agency | 9 |
| Hosted in County Agency | 3 |
| Hosted in State Agency | 12 |
| Hosted in University | 6 |
| Independent Business | 2 |

Some Coalitions are affiliated with multiple organization types
Information current as of August 2012

San Diego Regional Clean Cities Coalition

Population: 3,111,620

Area: 4,243 sq. mi.

Boundaries: San Diego County; City of San Diego

Designated: December 12, 1996

Alternative Fueling Stations:

Biodiesel (B20 and above): 15

Natural Gas: 24

Ethanol (E85): 10

Electric: 591

Hydrogen: 1

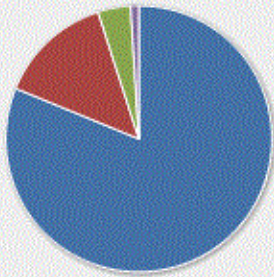
Propane: 16

Annual Greenhouse Gas Emissions

Avoided:* 43,518 tons of CO₂

Annual Petroleum Savings:*

11,428,049 gasoline gallon equivalents

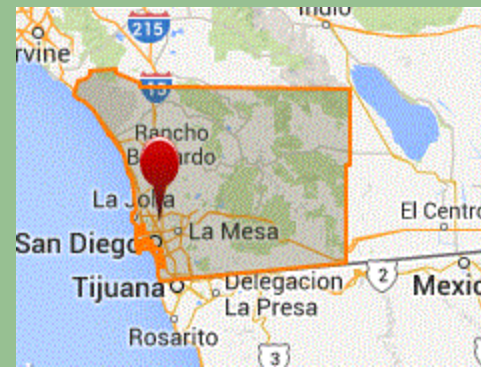


- Alternative Fuel Vehicles (82%)
- VMT Reductions (14%)
- Hybrid Vehicles (4%)
- Electric & Plug-In Vehicles (1%)

*2012 metrics

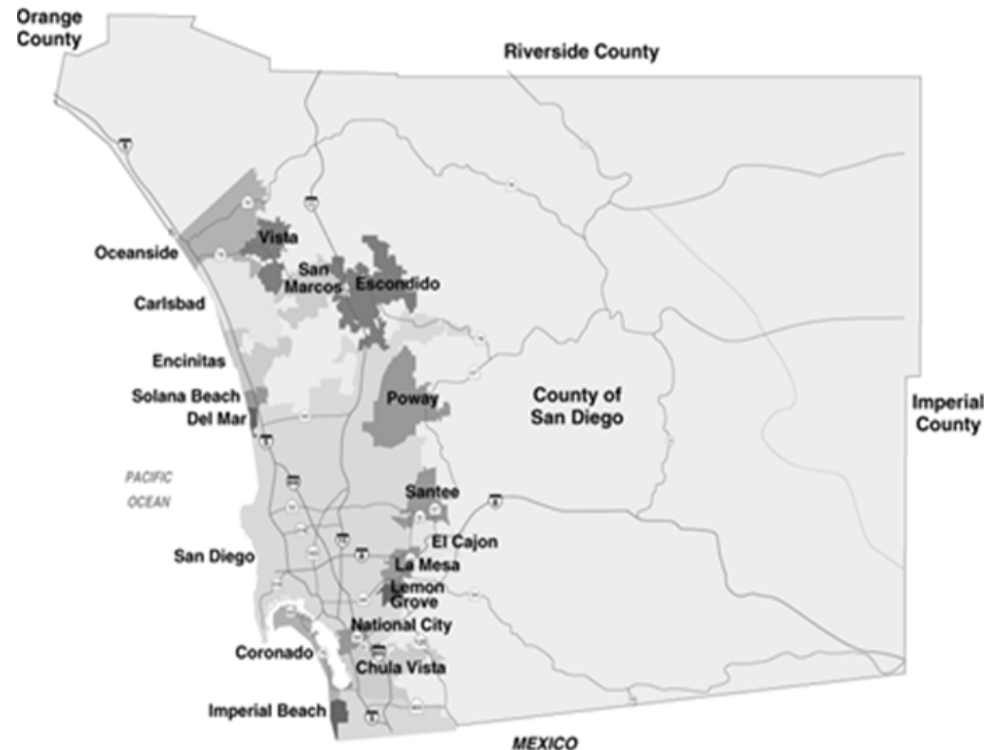


*Kevin Wood
Coordinator*



Coalition Structure

- 501c(3) non-profit organization
- Based at CCSE
- 20 member Board of Directors
- 2 co-coordinators
- 490 Stakeholders
- Coalition meetings
 - Occur every other month
- Funding
 - Memberships
 - Grants
 - DOE/LTI coordination contract



- New Leaf Biofuels
- Clean Energy
- Propel Fuels
- Expo Propane
- San Diego Gas & Electric
- San Diego Regional Airport Authority
- University of California, San Diego
- Port of San Diego
- Advanced Transportation Center (ATTE) Miramar College
- American Lung Association
- SANDAG
- San Diego Metropolitan Transit System
- and more



Member Benefits

- Access to education and outreach events
- Marketing Services
 - Web
 - Newsletter
 - Event

Membership Levels

- Sponsor
- Corporate
- Basic
- Individual



Current Projects and Activities

Outreach & Education

- Bi-monthly workshops & trainings
 - Alternate with board meetings
 - Energy Roadmaps for local governments
- Goods Movement
- Airport Fleets
- PEV dealer outreach
- Vehicle demonstrations and test drives
- Recurring events:
 - National Plug-in Day
 - Odyssey Day



Current Projects and Activities

- Electric
 - Public charging: 450+ L2s
 - Car2go
 - 387 all-electric car share vehicles
 - National Plug-In Day, 750 test drives
 - Dealer Outreach- Developed materials on key PEV information and resources
 - Consumer adoption, 7,000+ in San Diego



- Natural Gas
 - Metropolitan Transit System + North County Transit District
 - 570+ CNG buses, 7 private stations
 - Refuse collection
 - 200+ vehicles, 5 + 2 stations in construction
 - Major providers all moving to NG



Conserving the Future- Securing our energy future

- Addressing climate change, including...
“innovation in the reduction of emissions and improved energy efficiency on federal lands.”
- Connected Conservation
 - Communications
 - Community Partnerships
- Environmental Education
- Public health, environmental health



Education

- Educate staff and visitors about :
 - Transportation emissions & environmental impacts
 - Alternative fuel options

Outreach

- Spread the word on FWS transportation initiatives
- Get clean vehicle drivers to your parks

Resources

- Access Clean Cities Program tools and resources
 - Alt Fuel Data Center
 - Vehicle and fuel calculators
- Connections with local stakeholders

Funding Opportunities

- Rebate and other incentives
- Grants and financial assistance

Technical assistance- fleet consulting



How to get involved with Clean Cities

- Browse resources
- Get in touch- contact your local coalition
- Become a stakeholder
 - Join email list
 - Attend an event
 - Membership
- Co-host an event
 - Car show
 - EV picnic
- Partner on a project
 - EV Infrastructure



Contact Information & Important Links



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Clean Cities Website: www.cleancities.energy.gov

Clean Cities Coordinators: www.eere.energy.gov/cleancities/progs/coordinators.php

Alternative Fuels & Advanced Vehicles Data Center: www.afdc.energy.gov