



A Few Green Points

Point Reyes National Seashore Quarterly Sustainability Newsletter

Spring 2014, Issue 14

Point Reyes Joins National Climate Change Communications Effort

Communicating climate change to park guests and staff can be challenging and at times intimidating. As environmental stewards, many of us feel the need to educate and motivate people to modify current behaviors to ensure the resources we all depend on are here for generations to come, but may lack the skills or knowledge of the science to do so.

To meet this challenge, the National Network for Ocean and Climate Change Interpretation (NNOCCI) Study Circle was developed by a collaborative of education institutions with a grant from the National Science Foundation.

The NNOCCI Study Circle is a cross-disciplinary network group of peers from informal education institutions, science learning center, aquariums, zoos, natural preserves, and National Parks with expertise in the fields of climate and ocean science, interpretation, communications, sustainability, and cultural science. The goals of the Study Circle are 1) to learn the fundamentals of *strategic framing* as a method of communicating about climate science; 2) deepen knowledge about climate science; 3) develop collegial relationships supporting a mutual goal of effective climate science communication.

Sara Hammond and Dale Dualan from Point Reyes National Seashore (PORE) recently completed the Spring 2014 Study Circle, a first for the National



NNOCCI Study Circle in front of the Aquarium of the Pacific (Long Beach, CA). The group members hail from around the country with expertise in ocean science, communications, and sustainability. This was the first of three in-person meetings/trainings.

Park Service. The program was divided into three “in person meetings” and was supplemented by monthly webinars and weekly project assignments.

The first meeting took place in Long Beach, CA and examined how science communication efforts often go wrong and what effective communication alternatives work based on social science research. The second meeting in Woods Hole, MA covered various climate change science topics including ocean acidification, sea level rise, and others. The third meeting, at the Cal Academy of Science in San Francisco capped off the training with a project demonstrating communication techniques learned.

Gaining skills to effectively communicate about climate science enhances a visitors’ experience as well as meets the mission of

the National Park Service- to preserve and protect America’s most special places for the enjoyment of current and future generations. Point Reyes anticipates folding these communication skills into existing interpretive programs, presentations, and exhibits that focus on climate change and the effects on ocean and coastal ecosystems.

For more information, visit:

[NNOCCI](#)
[Climate Interpreter](#)

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West Marin Recycles E-waste on Earth Day

Point Reyes National Seashore joined thousands of recycling event organizers across the country hosting its fourth community electronic waste (e-waste) recycling drive on Earth Day, April 22nd. Since 2012, the Seashore has hosted this public event twice a year - on Earth Day (April 22nd) and America Recycle's Day (November 15th).

Seashore staff and visitors from the local community recycled a variety of electronic items including computers, TVs, printers, phones, A/V equipment, and other small electronics. E-waste was recycled through the local e-waste collector [Renew Computers](#) in San Rafael, CA where many of these electronic items are brought back to a reusable state and recycled back into the community.

Reminder: our staff e-waste collection is located at "E-waste" labeled bin the Buildings and Utilities garage. Accepted items:

- All computers and related accessories and peripherals
- Televisions/CRT Monitors
- Audio/video equipment
- Small printers, scanners, and faxes
- Wires, cables, and power cords
- Printer toner and inkjet cartridges
- Cell phones, PDAs, and telephones
- Small kitchen appliances
- CDs, floppy disks
- VHS, cassettes, and 8-track tapes

No items with NPS property numbers can be accepted until cleared with Claire Card. Example shown here:



For any questions regarding electronic equipment with property numbers contact Claire at ext. 5102.

Bike-to-Work Day Celebrates 20th Anniversary



Cyclists all over the nine Bay Area counties geared up for Bike to Work Day, which took place on Thursday, May 8th. This year marked the 20th Anniversary of the event in the Bay Area! The event is part of National Bike Month, a national effort to support bicycling as a way to commute to and from work.

[Energizer Stations](#) were located around various parts of the respective Bay Area counties with volunteers cheering bike riders and providing free donated snacks and beverages.

Bicycling has many benefits: being active for our health, reduces traffic congestion, air pollution, and greenhouse gas emissions from driving automobiles. For many, biking to work is an enjoyable experience.

"Reducing air, noise, and carbon pollution, and stress and guilt; getting mild exercise every day no matter what my workday looks; saving loads of money; listening to bird songs on my commute," says Park Restoration Biologist and champion bike commuter Ellen Hamingson. "Try the route when you're not under pressure to get to work. Early mornings are generally not bad for traffic, but make sure you are very visible (reflective clothing, lights, etc.). Be on alert for milk trucks!"

To encourage more employees to get out of their cars and on to bikes, the Department of Interior has implemented a new [Bicycles Subsidy Program](#). The

program provides a non-taxable commuting reimbursement up to \$20 per month for expenses such as maintenance, locks, and safety equipment. The [Federal Bike to Work Challenge](#) also offers another way to encourage more federal employees to form teams and bike to work.

SAFETY TIPS TO REMEMBER:

- Make sure your bike is properly tuned up. Check your breaks and tires.
- Find a bicycle buddy. More participation increases presence and visibility to other road users.
- Wear bright colors to be seen and recognized early.
- Obey stop signs, road rules, and ride on the right side of the road!
- Signal your intentions to other road users.

[Bike to Work Day Website](#)



"My favorite thing about biking to work is the cool air rushing through my hair! My advice is to 'just do it!' Not every ride has to be a long commute to work- riding to the market for the onion you forgot or exploring local bike paths are great ways to exercise, save gas, and gain a new perspective on your neighborhood."

- "Sky" Ben Atencio, Fisheries Technician



Be safe and happy riding!

Visitor Center Lighting Project Underway

The Bear Valley Visitor Center Lighting project has commenced. A bulk of the project will take place in early June. The project will redesign the lighting to create a brighter, safer environment for the overall visitor experience while reducing the amount of electricity consumed. The project should be completed by the end of July.



Climate Change 101: It's All About Interconnectedness

Before we describe climate change, it is important to discuss briefly the concept of weather versus climate. *Weather* describes an area's short-term conditions (temperature, wind, precipitation, etc.) on the scale of hours and days. *Climate* on the other hand describes those weather conditions over a longer period of time (months, seasons, years).

Thus "climate change," as we have all heard, describes those changes in Earth's climate. The term "climate change" is often used synonymously or interchangeably with "global warming." "Global warming," refers to the increase of Earth's average surface temperature and is one of many aspects of our interconnected climate system.

Main factors that affect our climate system: 1) the sun, 2) our atmosphere, 3) our lands, and 4) our oceans, and 5) all living things on the planet (Did I miss anything? Ok, pretty much everything plays a role!).

When the planet receives incoming radiation from the sun, some of that radiation gets absorbed by the Earth's surface and the atmosphere. Some of it

also gets reflected or emitted back into space (by Earth's surface and atmosphere). However, some of that radiation that is reflected or emitted by Earth's surface is *re-absorbed* by the atmosphere and *re-emitted* back to the surface. (How does the atmosphere do that?)

Well, our atmosphere is composed of gases. Some of these gases, such as carbon dioxide (CO₂) and methane (CH₄) absorb some of the radiation that gets reflected or re-emitted from the Earth's surface (see diagram below). These gases are known as "greenhouse gases." This absorption and emission of radiation warms our atmosphere and surface resulting to what's known as the "greenhouse effect."

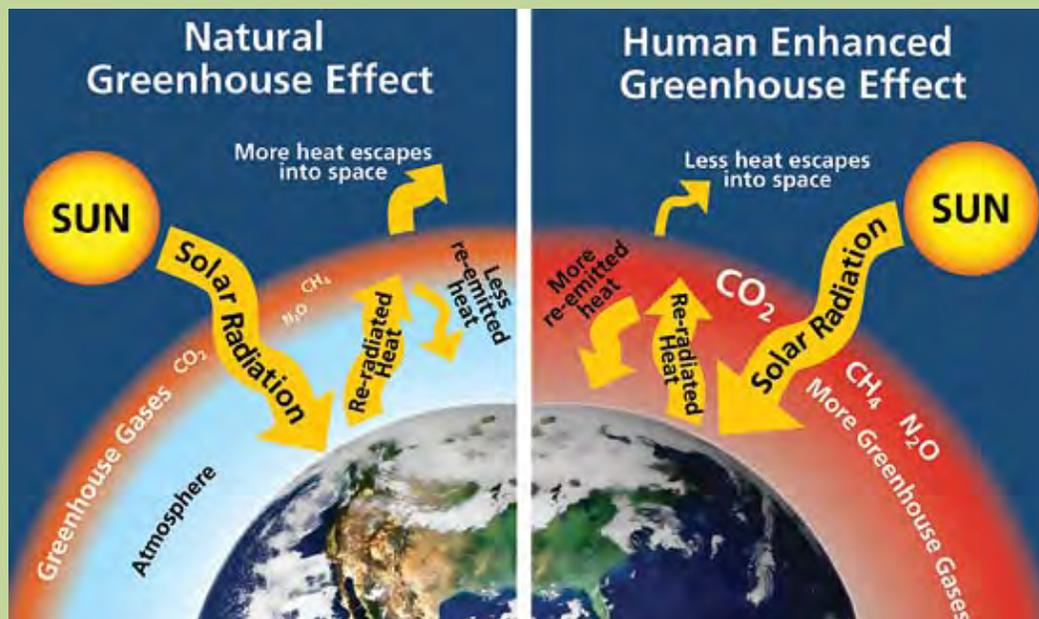
The greenhouse effect is necessary for our survival, however, today human activity and reliance on fossil fuels is altering the quantities of some of these atmospheric greenhouse gases including carbon dioxide and methane.

When we burn fossil fuels such as coal and oil to heat our homes and fuel our cars, we are adding excess carbon dioxide into the atmosphere. This

excess carbon dioxide acts as a "blanket," trapping increasing amounts of heat and causing the average global temperature to rise. This effect is greatly adding to the heat energy in the atmosphere and ocean and contributing to observed and projected environmental changes such as sea level rise, shifts in precipitation patterns, and higher frequency of extreme weather (leading to more droughts, floods, wildfires).

However, we, as innovators and stewards, are capable of taking on these climate challenges ahead! By collaborating towards more sustainable solutions such as renewable energy technologies, stronger public transportation systems, "greener" built environments; we can reduce our greenhouse gas emissions and responsibly manage our resources to maintain the climate system balance we need for current and future generations.

For more information, visit: [Climate Change & Point Reyes](#)



Human activities including the burning of fossil fuels are increasing greenhouse gas levels leading to an enhanced greenhouse effect. Graphic: Will Elder, NPS.

[Click here: Link to May 8th Climate Change Town Hall Webinar Recording](#)



[The National Climate Assessment](#) was released on May 6th. Click link for more info.

Water Conservation – Save Water!

We have not seen much precipitation this past winter season and long-range forecasts suggest the dry trend will continue for the balance of January.

On April 1, 2014, the North Marin Water District (NMWD) issued an emergency water shortage ordinance ([Water Conservation Ordinance No. 29](#)) with voluntary water use restrictions currently in effect. NMWD urges customers to reduce outside irrigation, fix leaks promptly and participate in [NMWD water conservation programs](#).

The ordinance will remain in effect until the NMWD Board of Directors declares that the water shortage emergency has ended.

As always, the Seashore promotes water conservation here at the park. In 2010, the Seashore retrofitted nearly all shower heads and aerators in the Bear Valley Headquarter building and checked for leaking toilets (with 0 result). Irrigation around the Administration building has also ceased. These actions resulted in a 27% reduction of utility-provided water use.

In 2012, the Seashore also installed a demonstration rainharvesting tank at the Building and Utilities building to supply water for compost and nursery operations.

Water is our most expensive utility. Low-flow fixtures and aerators should be the first choice when replacing fixtures (toilets 1.6 gpf (gallons per flush), aerators for sinks 0.5 gpm (gallons per minute), and kitchen faucets at 2.0 gpm). Also, when it comes to hot water leaks, we are not just paying for the water loss- it hits our wallet three times: 1) Purchase of

water, 2) heating the water, and 3) disposing the water. Even fixing the smallest leak immediately will save large amounts of water and other utility costs.

Leak Facts:

- The amount of water leaked from U.S. homes could exceed more than 1 trillion gallons per year. That's equivalent to the annual water use of Los Angeles, Chicago, and Miami combined.
- Common types of leaks found in the home include leaking toilet flappers, dripping faucets, and other leaking valves. All are easily correctable.
- Ten percent of homes have leaks that

waste 90 gallons or more per day.

Leak Detection:

- One way to find out if you have a toilet leak is to place a drop of food coloring in the toilet tank. If the color shows up in the bowl within 15 minutes without flushing, you have a leak. Make sure to flush immediately after this experiment to avoid staining the tank.
- A good method to check for leaks is to examine your winter water usage. It's likely that a family of four has a serious leak problem if its winter water use exceeds 12,000 gallons per month.

Source: [U.S. EPA WaterSense Partnership Program](#)



Water Conserving Tips

Outdoor Conservation Tips	Estimated Savings	Indoor Conservation Tips	Estimated Savings
Use a broom instead of a hose to clean driveways and sidewalks	8-18 gallons per day	Run the dishwasher only when full	1 - 2 gallons per day
Replace a portion of lawn with beautiful native, water-wise, California-friendly plants	33-60 gallons per day per 1,000 sq ft. depending on climate	Turn water off when rinsing dishes	5 - 10 gallons per day
		Turn water off when brushing teeth	4 gallons per day
Install covers on pools and spas to reduce evaporation	30 gallons per day	Shorten showers	10 gallons per day
Install water-efficient drip irrigation systems for trees, shrubs, and flowers to get water to the plant's roots more efficiently	20-25 gallons per day	Don't use the toilet as a wastebasket	2 gallons per day
		Fix leaky toilets	30 - 50 gallons per day per toilet
Water only in the late evening or early morning hours to reduce evaporation and interference from wind	20-25 gallons per day	Fix leaky faucets	15 - 20 gallons per day per leak
		Replace older, inefficient clothes washers	20 - 30 gallons per day
Repair leaks and broken sprinkler heads.	50-100 gallons per day	Replace older, high-volume toilets	6 - 10 gallons per day
<ul style="list-style-type: none"> · Reduce each irrigation cycle by 1-3 minutes, or eliminate one irrigation cycle per week. · Water only after the top inch of soil is dry · Adjust irrigation controllers and replace batteries in the spring and fall 	100-165 gallons per day	Wash only full loads of clothes	15 - 48 gallons per day
		Install low flow aerators on kitchen and bathroom faucets	4.7 gallons per day
Add 2" - 3" of mulch around trees and plants to reduce evaporation	20-25 gallons per day	Install hot water on-demand system	5 - 20 gallons per day Source: NMWD.com

“We” Are the Solution

While individual actions can have positive impacts and inspire others to make change for the better, we must also remember that as citizens and stewards, we are all interconnected with the climate change challenges we face today and into the future. Our collective actions as a community can make a huge difference. Here are some of many ways we can reduce our greenhouse gas emissions to protect our planet’s future:

At Home

- Install solar panels. Look into government incentive programs to reduce your costs.
- Ensure that all foundation, walls, and roof of your home is well insulated.
- Make a habit of shutting off all unnecessary lights and electronics.

- Install low-flow faucets and shower heads to save water and energy.
- Keep the hot water heater to 120 F and wrap it in a thermal blanket.

Getting To and From

- Get regular vehicle tune ups to help reduce emissions and improve mileage.
- Use public transportation or commute by carpooling.
- Consider purchasing a clean, fuel-efficient compact car.

Buying Stuff

- Think before you buy. Do I really need that brand new (fill in the blank)?
- Buy products that are produced locally.

- Purchase [ENERGY STAR](#) appliances and electronics.
- Put money towards purchasing verified carbon offsets. These fund projects that reduce carbon pollution such as wind farms and solar energy installations.

Advocacy

- Encourage our elected representatives to support legislation that limits carbon pollution.
- Advocate the use of renewable energy systems in new construction and remodeling of public buildings
- Encourage your local utility company to adopt cleaner, renewable energy sources.



For more tips visit: [PORE How You Can Help Page](#)

Recycling at Point Reyes NS

We do our best to offer extensive recycling services here at Point Reyes. Handy guides for all of our recycling services live on the InsidePORE site. You can access it by clicking here.



Here is a brief outline of what we recycle here at PORE:

Item	Collection Location
Mixed Paper	Large Green dumpster near R&T, basement of Admin
Flattened Cardboard	
Glass Bottles, Aluminum, and Tin Cans	Recycling Collection Station near Roads and Trails
Hard Plastics (#1-#7) e.g. plastic containers, No Styrofoam	
Milk/Soy Milk Cartons	
Batteries (No Large Automotive Batteries)	"Batteries" labeled bin under "Universal Waste" sign in B&U Bay
Compact and linear fluorescent bulbs	"CFL" labeled bin under "Universal Waste" sign in B&U Bay
Electronic waste (“e-waste”)	Large plywood "E-waste" labeled bin in the B&U Bay
Plastic bags & soft plastics	White "Plastic Bag" labeled bin in B&U Bay, Admin kitchen
Wrappers (snack food packaging)	Labeled bins in R&T, NRM, B&U, and Admin
Scrap Metal	Large bin behind R&T offices
All Hazardous Waste (paints, cleaners, oils, pesticides, antifreeze, needles, etc.)	Please contact Ken Taylor, HazMat Coordinator at x5158 (leave message)

Recycling guides in your home area: [Marin County Recycling Guide](#), [Sonoma County Recycling Guide](#), [San Francisco Recycling Guide](#)

'Tis the Season

Living in the SF Bay Area, we are lucky to have many local food systems right here in our geographic region. When food is grown locally, as opposed to nationally or globally, less transportation is required before it ends up on our plate. One method of local food distribution are Farmers' Markets: communal spaces in which farmers sell their produce directly to consumers. To find a farmers' market in your neighborhood, click [here](#).

Another method of local food distribution is through Community Supported Agriculture, or CSAs. These direct-to-consumer programs allow customers to buy "shares" of the farm's projected harvest.

Supporting local food systems helps support local farms, can help protect our health and the health of our community, and keeps dollars in the local economy.

Here's a look at some of the vegetables and fruits that are in season right now. You can also download a SF Bay Area "Vegetable Seasonality Chart" complements of the Ferry Plaza Farmers' Market by clicking [here](#).

Nettle Pesto

4 ounces fresh nettles
5 Tbsp olive oil
1/2c pecans
1/4c parmesan cheese
1 Tbsp fresh lemon juice
2 cloves garlic, minced
Sea salt to taste

Directions

1. Using kitchen gloves, carefully rinse nettles
2. Bring a medium pot of water to boil. Blanch the nettles for two minutes. Drain thoroughly, squeezing to release excess liquid.
3. In a food processor (or with an immersion blender), combine all ingredients to form a smooth paste.
4. Toss with your favorite pasta or vegetables



cuesa.org

**Please note: Nettles cannot be handled with bare hands until blanched*

Trainings/Events

Webinars

Title: Climate Change, Impacts, Vulnerability and Carbon in National Parks of the Pacific West Region
Presenter: Patrick Gonzalez, Climate Change Response Program
Date: Thursday, June 5, 2014
Time: 2:00pm - 3:00pm PDT
Registration Link: [Here](#)

Title: Changing Climate, River Flow and Riparian Forests in Western North America
Presenter: Jonathan Friedman, U.S. Geological Survey
Date: Thursday, June 12, 2014
Time: 2:00pm - 3:00pm EDT
Registration Link: [Here](#)

Title: The Latest Results from the National Climate Assessment and What it Means for National Parks
Presenter: Patrick Gonzalez, Climate Change Response Program
Date: Thursday, July 10, 2014
Time: 2:00 pm - 3:00 pm EDT
Registration Link: [Here](#)



[Click flyer for more info](#)

Trails & Oceans Stewardship Day!

Saturday, June 7, 2014

10am-2:30pm

Limantour Beach

RSVP to info@ptreyes.org or call

Jessica Taylor at (415) 663-1200

x304



Have any questions? Comments? Or a story or topic you'd like to suggest or contribute? Feel free to contact Dale Dualan at 415-464-5286 (email: Dale_Dualan@nps.gov) or Sara Hammond at 415-464-5165 (email: Sara_Hammond@nps.gov)