EARTH DAY 2023 EDITION

OSEEP News

Office of Sustainable Energy and Environmental Programs
Office of Facilities and Environmental Quality
U.S. Department of Commerce

Check out the 2023 Earth Day Photo Challenge highlights on pages 5-10.

A note from OSEEP

Happy Earth Week from the Office of Sustainable Energy and Environmental Programs (OSEEP)! We were delighted to receive many inspiring submissions in the 2023 Earth Day Photo Challenge: *Investing in Our Planet*. It's incredible to see so many Commerce employees investing in nature—whether they're spreading awareness about whales, working as a fisheries observer, volunteering to plant trees, or supporting environmental causes.

We hope you enjoy these photos as much as we did. Wishing you a happy Earth Day filled with admiration and appreciation for our beautiful Earth!

Sincerely
The OSEEP Team

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2023 Earth Week Activities at the Department

Join the Office of Sustainable Energy and Environmental Programs in celebrating Earth Week at the Department of Commerce! The following activities are available to Department employees and contractors:

The Green Store Listserv

Tips for living sustainably

- **(Virtual) Tuesday, April 18 at 1pm ET**: Pollinator Gardening 101 webinar with Master Gardener Christina Tyler Wenks - check broadcasts for the Teams Live link.

- **(Onsite at Headquarters) Wednesday and Thursday, April 19 & 20, 11am - 1pm:** Seed Planting Table at the Herbert C. Hoover Building (HCHB) cafeteria. OSEEP will provide seeds, soil, and planting cups for you to start your spring garden! Once you're done planting, visit the HCHB Green Store to see Earth Day Photo Challenge highlights and pick up some supplies. Check broadcasts for more information.

- **(Virtual) Sustainability Tips:** Join the Sustainability Listserv run by the HCHB Green Store to receive year-round tips on living sustainably at work and at home. You do not have to work at HCHB to join the listserv and receive regular sustainability tips. See below for instructions on joining and contact gogreen@doc.gov if you need assistance.

How to Join The Green Store Sustainability Listserv

1. Go to list.commerce.gov.
2. Log in using your Commerce Connection account information.
3. In the search bar, type "the-greenstore" and then select "Subscribe."
4. After subscribing, you will receive an email asking you to click a link to verify your email address – you must click the link to complete your subscription.

Coming Up: 2023 SEE Ambassadors Call for Nominations

In the coming months, the Department will announce its annual call for nominations for the Sustainability, Energy, and Environmental (SEE) Ambassadors Program. The SEE Ambassadors program recognizes individual Departmental employees for outstanding performance in implementing exceptional projects and/or programs helping the Department meet sustainability, energy and water reduction, clean energy, climate change adaptation, resilience, and/or environmental performance goals. Stay tuned to broadcasts for more information and email Sarah Yardley (syardley@doc.gov) with questions.

Pictured above: Members of the 2022 Class of SEE Ambassadors. ***First row:*** *Dominica Z., Census; Erica D., NOAA; Commander Lecia S., NOAA; Dr. Derek M., NOAA; Dr. Matthew L., NOAA; LTJG Luke E., NOAA. Chris D., USPTO; Greg G., USPTO; Adam Y., NIST.* ***Second row:*** *Avi G., NIST; Benjamin B., NIST; David Y., NIST; Dawn C.A., NIST; George T., NIST; Phillip N., NIST; Saul R., NIST; Susan C., NIST; Wayne A., NIST; Andrew D., NIST.* ***Not pictured****: Bernard B., NIST; Philip K., NIST.*

Spotlight: NOAA's Observatory on an Active Volcano in Hawaii

By Brian Vasel, National Oceanic and Atmospheric Administration (NOAA)

How long does it take lava to cool? At what temperature do telephone poles installed into a recent lava flow begin to burn? Do they literally catch fire or do the bases of the poles smolder like a charcoal briquette and essentially disintegrate away? These are some of the questions NOAA officials are pondering as they develop plans to restore operations at the world-famous Mauna Loa Observatory in Hawaii. Perched at 11,141 feet above sea level on the north flank of the Mauna Loa volcano, the observatory is ideally located to sample background atmospheric conditions free from the influence of local pollution. The eight-acre campus operated by the Global Monitoring Laboratory collects more than 250 daily measurements of weather, climate, and atmospheric data, including the longest continuous record of greenhouse gas concentrations. But the observatory, normally reached by a single winding access road, has been largely offline since December, when lava flows from the 12-day eruption of Mauna Loa volcano buried over a mile of the road up to a depth of 30 feet, also taking out the roadside power line. Access to the site has been limited to weekly visits by helicopter.

NOAA staff established backup measurements of carbon dioxide at the summit of Mauna Kea, a neighboring volcano famous for astronomy, only 10 days after the eruption began, thanks to support from colleagues at the University of Hawaii. Since then, a few critical systems at Mauna Loa Observatory have been brought back online as new battery storage systems have been installed to existing solar panels. The eruption has “fast tracked” planned renovations to support NOAA’s long-term goal to make the campus a net-zero greenhouse gas emitter, and planning is underway to begin making progress in the coming year contingent on restoration of road access. Future investment includes increased rooftop solar generation and site-wide installation of battery power backup systems to make the observatory more energy efficient and more resilient to future natural disasters.

Today, the facility relies on energy produced by the burning of fossil fuels to run pumps and instruments that directly measure the impact of fossil fuel emissions on our climate system. The Mauna Loa Observatory of the future will make these measurements as a sustainable, “off-grid”premier atmospheric research facility that is leading by example.

See more photos on the next page.

Photos: NOAA's Observatory on an Active Volcano in Hawaii

Pictured above: The Mauna Loa Observatory's access road covered in lava.

Pictured above: Sling load operations at the Mauna Loa Observatory.

Pictured above: Active lava flows from the Mauna Loa eruption.

Electrifying the Department's Fleet

By Alvin Smith, Office of the Secretary (OS)

The Federal Government stands to serve as a role model for accelerating progress in the fleet electrification journey and reaching net-zero commitments.

In 2021, the Biden Administration issued two executive orders intended to encourage more widespread adoption of battery electric vehicles (BEVs) in the United States and thereby move the country closer to achieving its net-zero emissions goal. The first executive order revitalizes the electric-vehicle (EV) program of the Federal Government, requiring the replacement of its entire fleet of approximately 650,000 vehicles with US-made electric models. The second executive order set timelines for all acquisitions of light-duty vehicles be 100% EVs by fiscal year (FY) 2027 and for all vehicles acquisitions to be 100% EVs by FY 2035.

The Department's multi-mission vehicles help protect our forests, prevent illegal fishing, provide critical weather forecasts, promote public health, secure our trade secrets, and ensure the safety of our people, among many other important missions. The Department is committed to electrifying as many fleet vehicles as possible. In FY 2022, the Department:

- Conducted 20+ site visits to determine infrastructure needs,
- Ordered nine Zero Electric Vehicles (ZEVs),
- Replaced three outdated charging stations, and
- Installed 5 new charging stations.

Many new projects are underway for FY 2023, and funding is a major component of this effort. The Department has allocated $300K and received $1.7M from the FY 2023 Federal budget, with more funding coming in future fiscal years. Currently, the Department is exploring other funding sources such as local utility companies, federal and state grant incentives, and non-government stakeholders to help alleviate some of the cost.

The Office of Personal Property and Transportation Management thanks all Bureau Sustainability Leadership for their support this past year and look forward to more successes in coming years as we transition to an electric fleet!

Online Training with OSEEP

OSEEP offers regular training sessions to provide education on environmental compliance, sustainability, climate literacy, and technical development topics. Stay tuned to broadcasts for more information and join us for our next session:

Pollinator Gardening 101 with Christina Tyler Wenks, Master Gardener
April 18, 2023 at 1:00pm ET

Environmental Compliance

Sustainability 101

Climate Literacy

Technical Development

Questions about OSEEP training? Contact Sara Smith (formerly Lake) at slake@doc.gov.

2023 Earth Day Photo Challenge: *Investing in Our Planet*

This year's theme, *"Investing in Our Planet"* invited Commerce employees to share photos of the various ways they nurture and protect the world around them. From photographing and researching whales in Thailand to helping to plant 300 trees outside Chicago, the collected photos tell a story of commitment and investment in our Earth.

Above: "When I was young, I went to Sea World in San Diego with my parents where I saw killer whales in a tank. That was the beginning of my interest in whales. One day in 2011, I learned from local fishermen in Phetchaburi, Thailand, that a Bryde's whale was found in the Gulf of Thailand. That is when I started taking photos of Bryde's whales and began to study more about whales. Subsequently, I organized whale-watching excursions for people from the U.S. Embassy in Bangkok and created a website to spread the word about the need to protect the whales. I also collected data to help Photo ID whales in Thailand, which I shared with the Thailand Department of Marine and Coastal Resources. From 2011 to the present, we have identified more than 60 whales in the seas surrounding Thailand." **Submitted by Panvipa C., International Trade Administration (ITA) -Thailand**

At left: "Three Economic Development Administration (EDA) staffers based in EDA's Chicago Regional Office helped plant more than 300 trees on Oct. 11, 2022, in Flossmoor, IL (outside Chicago) as part of project with the Chicago Regional Tree Initiative (CRTI). This was the largest volunteer one-day tree planting in the state, according to CRTI. Pictured left to right: Emily R., Economic Development Representative for IL; Rita B., Civil Engineer; Mary O.T., Regional Public Affairs Specialist and commissioner on the Flossmoor Green Commission." **Submitted by Mary O.T., EDA**

At left: "Having been born a few miles from this buffalo on the ancestral hunting grounds of the Cheyenne and Arapaho in western Oklahoma, I have long supported the 'Buffalo Commons' plan of Dr. Frank Popper to return huge swaths of this sparsely-populated land—spanning from Texas to Canada—to buffalo roaming. I have supported this project through academic research; facilitating Dr. Popper speaking at a Special Libraries Association conference; supporting the Great Plains Restoration Council; and keeping in touch with Dr. Popper as this project gains momentum." **Submitted by Greg G., National Technical Information Service (NTIS)**

Read more about the Buffalo Commons movement: https://gprc.org/research/buffalo-commons/

At right: "My last day as a Fisheries Observer for the Northeast Fisheries Observer Program. I spent two years on the water monitoring vessels from Maine to North Carolina. Fisheries Observer Programs are an immensely important part of fisheries management and conservation." **Submitted by Zach F., NOAA**

At right: "In my free time I'm a volunteer firefighter. Here we are conducting a tree mitigation project and control burn of the slash piles. Mitigation projects helps protect the community and make the forests healthier." **Submitted by David F., NOAA**

At left: "This is National Weather Service (NWS) Electronics Technician, Jeff H., working on the Oakland Automated Radiosonde Observing System (AROS) weather balloon site. Or is it Mars? The color was an effect of smoke from the California wildfire.

The AROS is an automated system that launches weather balloons. A radiosonde (a miniature weather station) is attached to the weather balloon as it ascends through the earth's atmosphere and collects weather data (barometric pressure, temperature, humidity, and wind speed and direction) during the ascension (called a flight). The Oakland station launches two balloons a day and is one of 92 stations operated by NWS; there are over 800 stations around the world. The collected data is used for weather modeling and forecasts. The models are used to predict hurricanes, tornadoes, weather patterns, and for protecting life and property worldwide. The data can also be used to make plans of action to mitigate the effects of climate change and to evaluate the effectiveness of current actions." **Submitted by Curt L., NOAA**

Above: "This is a photo of me being interviewed by a local news station in Mobile, AL during the National Drive Electric Earth Day event that we organize every April. It showcases many different types of hybrid, plug-in hybrid, and battery electric vehicles for the purpose of educating and informing the public on alternative fuel vehicles and how investing in this technology now will pay dividends for the environment later." **Submitted by Paul L., NOAA**

Above: "A photo of myself composting in the heart of Washington D.C. As a daily practice, I work to consider and implement actions to reduce my impact on the environment. By composting, I manage to divert my home's food waste from landfills and receive an added benefit of free garden soil, which I can use or share with my community." **Submitted by Amanda L., NOAA**

Above: "Planting a dogwood tree in my backyard." **Submitted by Paul L., NOAA**

Above: "Michael O. saves a turtle from the Maury River Road in Lexington, VA." **Submitted by Yi W., United States Patent and Trademark Office (USPTO)**

Above: "USPTO Trademarks employee Aubrey McMahan stands holding her lionhead rabbit, Bandit, next to her food and pet waste composter, with two potted herbs sitting on top. A great example of the circle of sustainability!" **Submitted by Aubrey M., USPTO**

Above: "This is a picture is of my sons Aarron (10) and Zane (3), during a beach clean up in Seal Beach, California in September 2022. It was a rewarding experience that opened our eyes to the excessive damage our use of plastic has on our planet, particularly our beautiful oceans." **Submitted by Audrey D., Census**

Above: "Each time my daughter watches me cut up the plastic rings/bottle holders, she makes a visit to her friend Fred (the turtle) to repeat: "Mr. Fred, we cut all the plastic and saved you and the penguins and the sharks and the fish..." She has learned there is value in her choices to protect our planet. ." **Submitted by Jennifer G., NOAA**

Above: "My family picked up bottle tops on the beach in Victoria, Australia. The San Remo Fisherman's CoOp sponsors a daily pelican feeding and designed a pelican shaped bin for bottle tops." **Submitted by Emily G., ITA**

"This picture is from my first time beekeeping, a hobby that has turned into a passion. Through volunteering at a community apiary in Washington D.C., I am able to give back to the environment by providing a safe space for bees and contributing to the maintenance of a healthy ecosystem in the heart of the city. I feel such a rewarding connection with nature working with the bees." **Submitted by Meredith R., OS**

"This tree is one of two pollinator-friendly redbuds my husband and I planted in our yard. We planted this one five years ago and the youngest (not pictured) last year. Seeing these trees grow, blossom, and become swarmed with bees in the spring is such a treat! Gardening and planting trees are some of my favorite ways to invest in our planet." **Submitted by Sarah Y., OS**

Looking Ahead: Next Year's Photo Challenge

Thank you to everyone who participated in this year's Earth Day Photo Challenge! Interested in participating next year? Don't forget to get a photo of yourself as you invest in our planet.