Allegheny County Sportsmen's League

www.acslpa.org

Conservation Committee Report

Volume 27 Issue 7 | Jack Walters—Conservation Chairman | July 2025

The Conservation Pledge

I give my pledge as an

American to save and faithfully defend from waste, the natural resources of my country; the soil, the water, the air, the minerals, the plant life and the wildlife.

This is my Pledge!

Inside this issue:

EPA Releases New Online Resources Giving Americans Total Transparency on the Issues of Geoengineering and Contrails

U.S. Environmental Protection Agency (EPA) released new online resources to address public questions and concerns about two topics: geoengineering and contrails.

EPA created these new online resources to communicate everything the agency knows about the latest science, research and other information regarding contrails and geoengineering. EPA is committed to total transparency with the American public on these topics.

"Americans have legitimate questions about contrails and geoengineering, and they deserve straight answers," ***said EPA Administrator Lee Zeldin.*** *"We're publishing everything EPA knows about these topics on these websites."*

(continued on page 2)

EPA Stops Contaminated Water by Slaughterhouse After Public Complaints in Monroeville, NJ

U.S. Environmental Protection Agency (EPA) collaborated with New Jersey Department of Environmental Protection (NJDEP) to respond to public concerns about crimson-colored discharge flowing from a Monroeville slaughterhouse into a nearby tributary used for farming and livestock. EPA inspected and, within two weeks, issued an order under the Clean Water Act (CWA) to stop the discharge.

"EPA quickly and efficiently responded to these public complaints. When the water runs red, people really take notice, and so do we

(continued on page 3)

EPA Releases New Online Resources Giving Americans Total Transparency on the Issues of Geoengineering and Contrails (continued)

EPA's new online resource on condensation trails, or "contrails," explains the science behind the aerial phenomenon and addresses myths and misconceptions that have persisted for decades. The new webpage also addresses head-on various claims that these occurrences are actually an intentional release of dangerous chemicals or biological agents at high altitudes for a variety of nefarious purposes, including population control, mind control, or attempts to geoengineer Earth or modify the weather.

EPA also created a new online resource focused specifically on solar geoengineering activities, which involve cooling the Earth by reflecting sunlight back to space, usually through injecting gases, like sulfur dioxide, into the upper atmosphere where they form reflective particles.

"EPA shares the significant reservations many Americans have when it comes to geoengineering activities," ***added Administrator Zeldin.***

The resource delves into the current state of science and research surrounding geoengineering, including the potentially negative impacts it could have on the environment and human health, including depleting the ozone layer, harming crops, altering weather patterns and creating acid rain.

EPA's new resource also details what EPA has done to identify and track private actors potentially engaged in such activities. Additionally, the online resource discusses weather modification and cloud seeding, and related federal and state government actions.

Access the EPA's new Geoengineering and Information on Contrails from Aircraft online resources.

Source: U.S. Environmental Protection Agency (EPA)

EPA Stops Contaminated Water by Slaughterhouse After Public Complaints in Monroeville, NJ (continued)

," **said EPA Regional Administrator Michael Martucci**. "This is a textbook example of how a community tip, state partnership, and swift federal enforcement can stop pollution in its tracks. We moved fast to shut down the discharge and protect the water that farmers and families depend on."

After observing an uncontrolled release of fluids from the slaughterhouse, including blood, EPA and NJDEP issued an administrative order on consent to Burlington Beef, outlining the facility's violations and requiring specific immediate actions, such as the construction of a three-foot berm, to stop the discharge. The facility quickly complied with the short-term requirements, ending the acute water contamination issue. EPA and NJDEP are now working on a long-term cleanup plan to ensure residents and nearby communities have continued access to clean water.

EPA remains committed to helping businesses and municipalities meet environmental standards while fostering economic growth and protecting human health. Through training, technical guidance, and case-by-base problem solving, EPA works with communities to fulfill its core mission of protecting human health and the environment, while simultaneously helping businesses thrive.

Follow EPA Region 2 on X, Instagram, and visit our Facebook page. For more information about EPA Region 2, visit our website.

Source: U.S. Environmental Protection Agency (EPA)

DCNR Park Manager's Off-Duty Service Earns Governor's Award for Excellence After He Helped Provide Lifesaving Aid to a Swimmer

DCNR Park Manager Justin Waid was recognized for his quick, off-duty action last summer when a swimmer went under at the lake and did not resurface.

A park manager with the **Department of Conservation and Natural Resources (DCNR)** who helped to save the life of a swimmer at Tobyhanna State Park in northeastern Pennsylvania has been recognized by **Governor Josh Shapiro** with a **Governor's Award for Excellence**.

DCNR Park Manager Justin Waid was honored for his actions on the evening of July 7, 2024, during a critical emergency when a swimmer went underwater at the lake and failed to resurface.

A DCNR Ranger promptly responded, pulling the victim from the water. Although off-duty, Waid arrived on the scene and without hesitation, joined the ranger and an EMT in providing critical emergency care. Together, they administered CPR, used an AED, and maintained the victim's airway until emergency medical services arrived. Their calm, coordinated efforts were instrumental in the victim's successful resuscitation, and full recovery without neurological deficits.

"Though newly appointed — just six weeks prior — Justin demonstrated extraordinary leadership and composure in a chaotic, high-pressure situation," said **DCNR Secretary Cindy Adams Dunn**. "His willingness to step up while off duty, combined with his expert response, went far beyond the typical responsibilities of a park manager. His actions not only saved a life but also reinforced the vital role of state park personnel in community safety."

Following the incident, Waid worked tirelessly to strengthen partnerships with local emergency responders and fire departments, earning respect from community leaders and legislators alike.

"This incident is just one example of the many challenges and emergency situations that state park staff are faced with every day," **Dunn** said. "Courage, skill, and commitment are some of many attributes that Justin exemplifies making him dedicated to ensuring the safety and enjoyment of all visitors."

Pennsylvania's 124 state parks and 2.2 million acres of forestland are open year-round with free entry — making them an affordable, accessible ***Great American Getaway*** for residents and visitors alike. State park managers are responsible for the overall administration, operation, maintenance, and recreation within a state park. This includes overseeing park facilities, visitor services, environmental programs, and public safety. They also manage park staff, develop operational plans, and ensure compliance with park rules and regulations.

(continued on page 5)

DCNR Park Manager's Off-Duty Service Earns Governor's Award for Excellence After He Helped Provide Lifesaving Aid to a Swimmer (continued)

Tobyhanna State Park is in scenic Monroe and Wayne counties. The 5,440-acre park includes the 170-acre Tobyhanna Lake. Visit DCNR's website for more information about state parks, events, and outdoor recreation opportunities.

The Governor's Awards for Excellence recognize individuals and groups of state employees for exemplary job performance or service that reflects initiative, leadership, innovation, and increased efficiency. Waid is one of 99 employees from nine agencies who were honored at a ceremony this week by Governor Shapiro for exceptional accomplishments in 2024.

Source: PA **Department of Conservation and Natural Resources (DCNR)**

Shapiro Administration Highlights Lyme Disease and Tick Bite Prevention Best Practices at Little Buffalo State Park in Perry County

Representatives from the **Pennsylvania Departments of Health (DOH), Conservation and Natural Resources (DCNR),** and **Environmental Protection (DEP)** visited Little Buffalo State Park in Perry County to highlight the importance of taking precautions to prevent Lyme disease and tick bites.

“Spending time outdoors supports physical and mental well-being. When outdoors, I encourage Pennsylvanians to take some simple steps to protect their health," said **DOH Secretary Dr. Debra Bogen**. “Take a few extra minutes before heading out the door to apply and carry sunscreen to prevent sunburns, bring water to prevent dehydration, and apply or carry an EPA-approved bug spray to prevent tick bites."

Pennsylvania typically ranks among the top 10 states in the country for Lyme disease cases per 100,000 residents. Last year, DOH recorded 16,620 lab-confirmed cases of Lyme disease. Most cases can be treated successfully with a short course of antibiotics, but if left untreated, Lyme disease can spread to joints, the heart, and the nervous system.

To help residents plan outdoor activities safely, DOH launched an online dashboard that shows where ticks are prevalent so people can take appropriate precautions.

"By taking simple preventive steps, people can enjoy the mental and physical benefits of spending time outdoors without the added worry – especially when it comes to ticks," said **DCNR Secretary Cindy Adams Dunn**. "It’s essential to understand the risks and be prepared throughout the year, whether you're exploring one of Pennsylvania’s state parks, hiking in our state forests, or relaxing in one of the more than 6,100 local parks right in your own community."

Ticks can be found in both urban and rural settings — typically in shrubs, weeds, leaf litter, and tall grasses — but they can be present anywhere there is foliage. Taking proper steps to reduce the chances of being bitten is key.

“Ticks that carry Lyme disease have been found in all 67 counties in Pennsylvania, and we constantly monitor other tick-borne diseases that may pose a risk to residents and visitors,” said **DEP Deputy Secretary John Ryder**. “A little prevention goes a long way to keeping you and your family safe from ticks this summer.”

Tips for tick bite prevention:

- Cover exposed skin and wear light-colored clothing to make it easier to spot ticks.
- Use EPA-approved insect repellent for tick prevention.

(continued on page 7)

Shapiro Administration Highlights Lyme Disease and Tick Bite Prevention Best Practices at Little Buffalo State Park in Perry County (continued)

- Before heading outdoors, treat shoes, clothes, and gear with permethrin.
- After coming indoors, check yourself, children, and pets thoroughly for ticks and remove any promptly.
- Shower soon after spending time outside to help wash away ticks that may have gone unnoticed.
- Place clothes in the dryer on high heat to kill any remaining ticks.

The **Shapiro Administration** also reminds Pennsylvanians about the health benefits of enjoying the outdoors safely, which include:

- Improving cardiovascular health
- Strengthening muscles and bones
- Reducing the risk of chronic diseases
- Lowering stress and improving mental health
- Increasing social connection

For more information on Lyme disease, visit DOH's Tickborne Diseases webpage.

Visit DCNR's website for more information about what to do at state parks and where to go on public lands, including local parks and for scenic views. DCNR encourages Pennsylvanians to check its Calendar of Events for seasonal programming happening across the state.

Source: PA **Conservation and Natural Resources (DCNR)**

Shapiro Administration Honors Delaware River as Pennsylvania's 2025 River of the Year

DCNR celebrated the designation at Minisink Park, held alongside the 30th annual Delaware River Sojourn, highlighting the river's legacy, restoration, and impact on local communities.

The Delaware River has played a pivotal role in American history — from George Washington's famous crossing during the Revolutionary War to its role in powering the Industrial Revolution.

Conservation Stuff

For the past decade and a half, a team led by Cambridge University conservation biologist William Sutherland has engaged scientists and practitioners from around the world in a unique annual activity: conducting a horizon scan to identify the top emerging technological, political, economic and related shifts most likely to have a substantial effect on biodiversity around the world in the year ahead. Over the years, the list has helped illuminate intended and unintended consequences in a way that offers benefit to both policy and practice.

This year's horizon scan includes 15 key issues looming over biodiversity in 2024:

Hydrogen: Heyday or Mayday?

As efforts to allay climate change grow, hydrogen is becoming an increasingly popular alternative to conventional fuels. The extent to which tapping this alternative energy source benefits biodiversity, however, depends on how the hydrogen made. Hydrogen produced from natural gas continues reliance on climate-disrupting fossil fuels; production using freshwater or seawater as feedstock or tapping natural underground reservoirs poses potential unintended consequences in the form of habitat destruction or disruption. And unless hydrogen production, distribution and deployment systems are designed with care, they could end up contributing greenhouse gases of their own. Special effort will be needed to ensure the benefits outweigh the harms in ramping up this mixed-bag climate solution.

Ammonia Dilemma

Ammonia is a key ingredient in agricultural fertilizer. It also takes massive amounts of energy — currently largely derived from fossil fuels — to produce. A novel technique that involves spraying tiny droplets of water onto a magnetic mesh holds promise for dramatically reducing the cost and greenhouse gas footprint of ammonia production and so mitigating climate change. However, it also poses potential threats. For one, cheaper, lower-carbon ammonia production could spark an increase in fertilizer use and so the threat of air and water pollution. In addition, because fertilizer enhances soil microbes' ability to produce nitrous oxide, a potent greenhouse gas, the net climate benefit could be far less than anticipated at first glance.

Mmm Mmm Microbes

The search for environmentally friendlier food sources has turned to the tiny — with huge implications for reducing threats to biodiversity from land conversion, overfishing, nutrient pollution and climate change. Researchers have developed methods for cultivating bacteria on

(continued on page 10)

Conservation Stuff (continued)

hydrogen, nitrogen and carbon dioxide. The resulting product — already okayed for use as human food in Singapore — is relatively taste-free and easy to incorporate into a variety of manufactured foods to boost protein content. If the chemical inputs are produced using renewable energy, the product could have a dramatically lower climate footprint and overall environmental impact than meat, dairy and other conventional dietary protein sources.

Crops in the Dark

The process by which plants use sunlight, water and carbon dioxide to make food for themselves and other living things is both amazing and amazingly inefficient. Recently, researchers developed an alternative process that uses electricity, water and carbon dioxide to produce acetate, which then can be used in place of glucose produced by photosynthesis to stimulate plant growth. The biochemical workaround could dramatically increase the productivity of plants grown in artificial environments — and even, in some cases, eliminate the need for light. If the energy input to the system comes from renewable sources, the result could be highly efficient, environmentally friendly indoor food production that contributes to biological conservation by reducing the need to transform habitat into farmland.

Rock Dust

Among many strategies being considered for reducing the threat of climate change is to spread carbon-capturing rock dust on farmlands. Evidence showing the practice can also improve crops could speed application before other consequences, positive and negative, are clear. Possible additional benefits include increasing the presence of beneficial microorganisms in the soil, reducing nutrient threats to freshwater, and decreasing acidity in soil and seawater. Potential negative consequences include increasing the flow of silt to surface water, exacerbating heavy-metal pollution, harming organisms living in soil and encouraging increased mining. Supply, further elucidation of benefits, and the presence of government incentives or disincentives will all play a role in the extent to which this innovation is likely to be adopted.

Disappearing Earthworms

Earthworms play a vital role in many ecosystems — including farmlands — by recycling dead plant matter, releasing nutrients and enhancing soil quality. Silently doing their jobs beneath the surface, they are rarely seen or even thought about.

(continued on page 11)

Conservation Stuff (continued)

A closer look, however, suggest it's time to give them more serious consideration. A recent survey in the United Kingdom found that earthworm numbers have dropped by one-third or more over in the past quarter-century, likely due to increased pesticide use. If this trend holds true elsewhere — and if nothing is done to alleviate it — the loss could have huge adverse ramifications not only for ecosystem integrity, but for Earth's ability to feed a hungry human population.

Listening to Soil

What does healthy soil look like? Conventional strategies for determining how healthy soils are and what they might need to be healthier require literally digging in — presumably a time-consuming and expensive task. Emerging technologies are making it possible to instead *hear* the condition of soil beneath the surface by using sound-capturing technology to identify the location and movements of underground invertebrates as they go about their activities of daily living. Known as soil ecoacoustics, the noninvasive approach could make it possible not only to easily characterize soil health, but also to track and enhance restoration of previously degraded soils, boosting their ability to serve as the literal underpinning of healthy, biodiverse habitats. Efforts are proposed to make the technology friendly enough for use by citizen scientists and to develop strategies for combining it with other approaches to environmental monitoring.

Smoke and Climate

The amount of smoke in the atmosphere is likely to increase in the future, thanks to growing frequency and intensity of wildfires. And it's becoming increasingly clear that smoke in the air can have serious consequences for Earth's climate. Particulates given off by intentional burning (for example, to clear forests or cook food) and other fires can disrupt normal climate cycles and alter how temperature and pressure are distributed in the atmosphere by blocking sunlight and redistributing moisture in the air.

Large-scale changes could easily alter the balance of nature, with potentially harmful consequences for biodiversity writ large.

Plants, animals, other living things and entire ecosystems have evolved to go with the flow of existing climate cycles. Large-scale changes could easily alter the balance of nature, with potentially harmful consequences for biodiversity writ large — and for humanity, which depends on healthy ecosystems for our own well-being.

(continued on page 12)

Conservation Stuff (continued)

The DNA Machine

Recent advances in genetic research have made it possible to (relatively) easily manufacture customized strands of DNA, and further work could lead to the ability to use a printing device to make long strands of genetic material that code for desired traits, then insert them into organisms. The result is a Pandora's box of possible impacts for conservation, both positive and negative. On the upside, the technology could be applied to reduce the need to clear land for agriculture, minimize environment-polluting fertilizers and pesticides, boost organisms' resilience to environmental change, and offer new methods of pest control. At the same time, indiscriminate or nefarious use could make it possible to produce variations on existing organisms that could replace non-engineered counterparts and disrupt ecosystems. The seemingly endless possibilities could lead to international efforts to regulate application.

Predicting Toxicity

Historically, humans have discovered whether a particular chemical is harmful to living things and ecosystems by deploying it and then observing the outcomes. Fortunately for all involved, a new approach is emerging. Scientists are exploring the use of existing information about how various types of chemicals behave in the environment, in organisms, and even at the molecular level to predict whether and how newly formulated compounds might have undesirable unintended consequences. Known as "adverse outcome pathways," the approach could see rapid improvement with the help of machine learning, deep learning and artificial intelligence. The ability to prescreen substances in this way could make it easier to identify those that provide benefit, such as improved food production, with minimal harm.

Bird Basher Alert

Each fall, billions of birds representing more than 100 species fly south from Europe along a path that bifurcates at the Red Sea. Rising directly in their path as part of Saudi Arabia's NEOM megacity development is a skyscraper complex covering 34 square kilometers (13 square miles) and rising 500 meters (1,600 feet) into the sky. Perched at the north end of the Red Sea, covered with reflective surfaces, and potentially sporting wind turbines, the mega-building as currently designed could become a death trap for the multitudes of migratory birds known to use the flyway. With no environmental assessment in place to identify or serve as a base for plans to mitigate the threat, scientists worry that a massive skyscraper

(continued on page 13)

Conservation Stuff (continued)

slaughter might ensue, disrupting ecological balances as a paucity of passerines alters the eat-and-be-eaten worlds at both ends of the migratory pathway.

Death of the Urchins

Sea urchins play a pivotal role in maintaining the integrity of coral reefs by nibbling on algae that otherwise would overwhelm the ecosystem. So when massive urchin die-offs occurred in both the Caribbean and Mediterranean seas in 2022 and then appeared to spread to the Red Sea, scientists knew it spelled trouble for underwater ecosystems. Although the cause for the European die-offs remains a mystery, researchers were able to implicate infection with a ciliated microbe as the likely cause of the western Atlantic disaster. If a similar microbe turns out to be the culprit in the Mediterranean, it might be a sign of a shift in environmental conditions that favors the growth of ciliate microbes in other marine environments. Cascading impacts could be devastating, since this class of pathogens is known to infect fish, corals, crabs and other ocean creatures.

Storing Carbon in the Ocean

Too much carbon dioxide in the atmosphere? Call in the ocean! Covering nearly three-quarters of Earth's surface and well known for its ability to soak up CO_2, the seven seas are being eyed as promising candidates for removing excess quantities of the planet-warming gas humans have spewed into the atmosphere. Active strategies being proposed to enhance the oceans' capacity to take up CO_2 include adding fertilizer to seawater, growing and then sequestering algae, raising ocean water's pH and actively injecting CO_2 into rocks beneath the surface. As good as this all sounds, the horizon scan authors write, proponents would do well to keep a couple of things in mind as they make decisions about whether and how to implement them. First, these strategies are largely untested, so no one really knows how good they will be at storing carbon. Second, there is much potential for unintended adverse consequences for biodiversity and society.

Trouble in the Twilight Zone?

The mesopelagic or "twilight" zone of the ocean, a region 200 to 1,000 meters (700 to 3,000 feet) below the surface, is home to rich concentrations of fish and other ocean life. These creatures in turn provide abundant organic matter for the deep ocean as feces and carcasses sink toward the ocean floor, nourishing deep-sea creatures in the process.

(continued on page 14)

Conservation Stuff (continued)

As Earth's atmosphere warms due to increasing concentrations of greenhouse gases, the twilight zone is warming, too.

Not only that, but eventually some of this material is buried in sediment, sequestering planet-warming carbon from the atmosphere in the process. If the sinking organic matter comes in large pieces, it sinks faster and tends to store carbon far longer than if it comes in smaller portions. The challenge? As Earth's atmosphere warms due to increasing concentrations of greenhouse gases, the twilight zone is warming, too. Scientists are concerned that this warming will cause the organic matter to break down more quickly, reducing its ability to both feed sea life below and sequester carbon.

Current Events

Beneath the surface of the ocean, currents of water run from one place to another, driven by gradients in temperature and salinity. Changes caused by increasing concentrations of greenhouse gases in the atmosphere due to human activity are altering these subsurface streams, creating novel and at times unsettling conditions for marine life of all shapes and sizes. One such current, the Antarctic abyssal overturning, deserves far more attention than it has gotten to date, the authors write. The current is expected to dramatically slow over the next quarter-century as ice melt alters salt concentrations. That shift in turn could reduce the availability of oxygen in seawater and alter the availability of food and habitable conditions for life both in the sea and on land. At the same time, other factors, such as shifting winds, could create a mixed bag of impacts that could alter ocean life in unanticipated ways.

Source: **Writer** Mary Hoff
@mkhoff