SPOTLIGHT ON PENNSYLVANIA:
HUMAN AND ENVIRONMENTAL BENEFITS TO WASTE-FREE LIVING

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It’s a fact that most Americans accumulate large amounts of trash and waste over the course of our lifetimes. It’s also a fact that producing significant amounts of waste poses several environmental and health risks to humans, wildlife and our natural resources. In order to combat these effects, many individuals have chosen to adopt a “zero waste” lifestyle.

Before delving into the concept of zero waste and how others are implementing it into their daily lives, it’s important to take a look at how much trash is produced by Pennsylvanians in order to gain a better picture of how small changes can make a big difference.

In 2016, the Environmental Protection Agency’s Greenhouse Gas Reporting Program released data conducted by SaveOnEnergy.com which found that Pennsylvania had the second highest amount of landfill trash per capita in the nation behind the state of Nevada. The analysis reported that there are 35.4 tons of trash per person in the Commonwealth. According to the Pennsylvania Waste Industries Association, as of 2016 the state created nearly 8.7 million tons of municipal waste each year. During the prior year, the EPA’s Biennial Hazardous Waste Report found that the Commonwealth generated 293,947 tons of hazardous waste such as acid.

In addition, the Commonwealth is a top importer of trash. Pennsylvania receives a significant amount of out-of-state trash from New Jersey and New York. In 2014, Pennsylvania received over 3.5 million tons of waste from New Jersey, and over 2.6 million tons of waste from New York. Despite Pennsylvania remaining in the top 5 for states in the nation with the most landfill trash per capita, the Commonwealth also ranks high above their counterparts when it comes to efforts to preserve and protect the environment. The Commonwealth is focused on operating regulated landfills, implementing comprehensive recycling and reuse programs across the state, and continual efforts to find sustainable, energy efficient initiatives that reduce air and water pollution. Many companies across Pennsylvania are also making strides to reduce waste and

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State Government Update  Environmental Memoranda, Bills, Votes and Acts

Access the provided hyperlinks to see more information from the Pennsylvania General Assembly official webpage.

Legislation

Representative David Maloney

House Bill 102 - Amends the Pennsylvania Game Code, requiring every school district to make available a classroom or facility where no-cost hunter education classes can be conducted.

Presented to the Governor - May 28

Representatives Donna Oberlander and Jonathan Fritz

House Bill 247 - Allows owners of well bores to drill across multiple units as long as they have the right to drill wells on all units and reasonably allocates the production across the members of the units.

Removed from the table in the House – May 27

Representative William Kortz

House Bill 584 – Creates a fishing license exemption for participants in organized therapeutic fishing activities.

Re-reported as committed in the Senate – May 28

Representative Jonathan Fritz

House Bill 827 – Provides that landowners in the Delaware River Basin will be entitled to compensation calculated in the same manner as is used to determine value in an eminent domain action with regards to gas drilling.

Removed from the table in the House – May 28

Representatives Christopher Rabb and Liz Hanbidge

House Resolution 861 – Directs the Legislative Budget and Finance Committee to conduct a study on the costs and benefits of electric vehicles.

Referred to House Transportation – May 4

Representative Mindy Fee

House Bill 881 – Funds were approved in 1999 to be used for agricultural conservation assistance grants and $165 thousand remains in the Agricultural Conservation Easement Purchase Fund. As they are only authorized for grants of this kind, this will allow grants of $3 thousand per family to be distributed until the remainder is exhausted.

Referred to Senate Agriculture and Rural Affairs – May 7

Representative Keith Gillespie

House Bill 1003 - Allows the PFBC to directly issue citations to owners who fail to mark their low head or run-of-the-river dams.

Reported as committed in the Senate – May 27

Representative Parke Wentling

House Bill 1188 – Removes the restriction on the use of thermal and night vision equipment for hunting, allowing for case-by-case evaluation by Pennsylvania Game Commission.

Re-referred to Senate Appropriations – May 14

Representative Jason Ortitay

House Bill 2004 – Amends the Keystone Recreation, Park and Conservation Fund, repealing the Act’s static allocation schedule. The General Assembly would then annually appropriate money in the fund among the grant programs.

Removed from the table in the House – May 19
Representative Carl Metzgar
House Bill 2555 – Creates the Energy Consumer Choice Enhancement Act, which allows for direct billing and increased customer choice for electricity and natural gas providers.
Referred to House Consumer Affairs – May 28

Senator Gene Yaw
Senate Resolution 325 – Urges the DEP to cease all action to pursue a greenhouse gas cap and invest program.
Referred to Senate Environmental Resources and Energy – May 8

Senator Lisa Boscola
Senate Bill 377 – Increases the fine for taking a bald or golden eagle from $200 to $2,500 and raises the penalty.
Referred to House Game and Fisheries – May 28

Senator Joseph Scarnati
Senate Bill 790 - Creates separate regulations for the conventional oil and gas industry.
Referred to Senate Rules and Executive Nominations – May 28

Senator Gene Yaw
Senate Bill 915 - Sets standards for turf and lawn fertilizer application and creates labeling standards and funding. Also creates certification requirements for professional fertilizer applicators for lawn and turf in order to reduce the amount of excess nitrogen and phosphorus runoff in Pennsylvania waterways.
Referred to Agriculture and House Rural Affairs – May 28

Senator Gene Yaw
Senate Bill 1030 - Amends the Pennsylvania Sewage Facilities Act to remove the Technology Verification Protocol. This is intended to allow alternate treatment technologies to be used and maintain the original intent of the law.
Presented to the Governor – May 28

Senator Gene Yaw
Senate Bill 1173 – Amends the Air Pollution Control Act’s Air Quality Technical Advisory Committee to include twelve members appointed by the General Assembly. The Governor will appoint six members.
Referred to Senate Environmental Resources and Energy – May 28
Atlantic Hurricane Season to be Active

Tony Guerrieri, Executive Director

In June 1972 Hurricane Agnes caused widespread rains in Pennsylvania of 6 to 12 inches, locally up to 19 inches.

The National Oceanic and Atmospheric Administration’s Climate Prediction Center recently warned that data predicts more hurricanes in 2020 than during an average Atlantic hurricane season on top of the coronavirus outbreak that first responders already have to worry about. Current and predicted oceanic and atmospheric conditions indicate a 60 percent chance of an above normal season.

Hurricane season runs June 1 through November 30, with the peak coming in August, September and October. On average, the Atlantic hurricane season produces 12 named storms, of which six become hurricanes. NOAA predicted with 70 percent certainty there will be 13 to 19 named storms with top winds of at least 39 mph. Of those, 6 to 10 are expected to become hurricanes with top winds of at least 74 mph, including three to six major hurricanes of category 3 or stronger.

If 2020 is an above average season, this will be the fifth consecutive year of above-average activity. This would break the record of four straight above average seasons. The 2020 forecast cited unusually warm water in the Atlantic Ocean and the likely absence of the climate phenomenon called El Nino, which can suppress hurricane formation by fostering high-level crosswinds.

Access the NOAA findings at: https://www.noaa.gov/media-release/busy-atlantic-hurricane-season-predicted-for-2020.
Research Briefs

The information or opinions expressed in the Research Brief articles do not necessarily represent the opinions or positions of the Joint Legislative Air and Water Pollution Control and Conservation Committee, nor those of the Pennsylvania General Assembly.

Honey Bee Colonies Stunted by Pesticides
Coleen Engvall, Research Analyst

Bees and other pollinators have been in decline. These creatures are vital to supporting agricultural operation and the health of wild ecosystems, but some common pesticides are negatively impacting their health.

Research into the plight of honey bees has turned up several variables that can lead to the death or impairment of a colony. Parasitic mites, disease, extreme weather, monoculture farming and man-made chemicals created a perfect storm for mass bee die-offs and colony collapses. This research has paid off, and the crisis at the beginning of the 2000s has begun to slow.

Neonicotinoids, a common and effective insecticide, was shown to impact the learning and navigational abilities of bees, leading to less food making it to the colony. There have been some calls to ban the use of the insecticide, but, for the most part, it is still in use.

Researchers from the Goethe University Frankfurt at the Bee Research Institute of the Polytechnical Society investigated the interactions further. When administered small amounts of neonicotinoids, nurse bees fed the larvae less often, leading to slower development and eventually, a smaller, more vulnerable colony.

The study and the innovative filming and machine learning methods they used can be accessed at: https://www.nature.com/articles/s41598-020-65425-y.

US Ranks 24th in 2020 Environmental Performance Index
Tony Guerrieri, Executive Director

The U.S. has improved its standing in the Environmental Performance Index, though it still lags in categories such as waste management, ecosystem services and biodiversity. We achieved first in emissions and 16th in air quality.

The United States ranked 24th in the global Environmental Performance Index (2020), rising from the 27th position in 2018. The EPI is compiled every two years by researchers at Yale and Columbia universities. It ranks 180 countries based on 32 performance indicators, such as pollution, biodiversity, climate change and others.

Denmark leads the world in sustainability. Its top ranking reflects strong performance across most issues, especially air quality and climate protection. Denmark is followed in the rankings by Luxembourg, Switzerland, Britain, France, Austria, Finland, Sweden, Norway and Germany. In general, high scorers exhibit long-standing commitments to protecting public health, preserving natural resources and decoupling greenhouse gas emissions from economic activity. The worst performers in the world, in ascending order are Sierra Leone, Afghanistan, Myanmar, and Liberia in place 180.

The United States in 2020 ranked 24th with an overall score of 69.3 (out of 100). This ranking puts the United States near the back of the industrialized nations, behind the United Kingdom (4th), France (5th), Germany (10th), Japan (12th), Italy (20th), and Canada (20th). Of the emerging economies, China and India ranked 120th and 168th respectively. Bahrain ranks as the most improved country over the past decade.

In terms of individual categories, the U.S. ranked 25th in “environmental health” and 31st in “ecosystem vitality.” In individual indicators in 2020, its position and score (given in brackets) were as follows: air quality 16th (84.2), drinking water quality/sanitation 26th (86.1), heavy metals in the environment 31st (75.9), waste management 71st (48.3), biodiversity and habitat 67th (67.5), ecosystem services 127th (26.8), climate change 15th (71.4) and emissions 1st (100).

The 2020 Environmental Performance Index is available at: https://epi.yale.edu/.
become more eco-friendly by eliminating the use of items such as plasticware and styrofoam products for consumers.

Individual efforts are also vital. In 2018, research conducted at the World Bank found that over 3.5 million tons of plastic and solid waste are produced on a daily basis. According to Keep Pennsylvania Beautiful, in 2019 during their Pick Up Pennsylvania-Fall program, over 488,100 pounds of trash and debris was gathered by volunteers. The organization noted that the most common types of trash collected during the event included: cigarette butts, food wrappers, plastic bottles, beverage cans and tires.

Given some of these staggering figures, we can work together to make conscious efforts in our own daily lives to strive towards reducing the amount of waste that we accumulate at home.

The term “zero waste” has been defined in different ways by municipalities and organizations in the United States and around the world. On the EPA’s website, according to the Zero Waste International Alliance, zero waste is defined as, “the conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.”

Zero waste initiatives have been implemented all over the world. Some of the most common tips for adopting a minimalist lifestyle from zero waste advocates are listed below. Some of these practices are simple and ones you may currently do without even realizing the environmental, economic and health benefits that follow!

- Purchasing items in bulk. Bulk items often use less packaging and are also more cost-effective because you are avoiding having to pay the cost of individually packaged goods and products.
- Borrowing items instead of buying them. By borrowing items that you will only use a couple of times throughout the year or years, you reduce the amount of items that you will eventually throw away.
- Switching out commonly used household and personal items in your home, including: switching from plastic shaving razors to stainless steel razors and swapping a plastic toothbrush for a bamboo toothbrush. These items are more eco-friendly and last longer than plastic ones.
- Shopping at thrift stores for clothes, shoes and accessories. This will not only spare your wallet, but it also reduces packaging.
- Fixing electronics instead of purchasing brand new ones. However, if an item is not repairable, recycling the parts is ideal. Stores across the United States such as Staples and Best Buy have great recycling programs.

Aside from the environmental benefits of practicing zero waste, it provides economic and health benefits as well. It is possible to save thousands of dollars a year by reducing and reusing. It’s a fairly simple concept: when we live with less, we reduce the amount that we consume and then have to eventually discard down the road. Relying on less material goods that are unnecessary helps us to place more value on the things that matter.

It is important that we understand that going completely zero waste won’t happen overnight. Rather than uprooting our entire routine in order to go zero waste, we can start by becoming more mindful when making decisions about what we purchase and consume on a regular basis. By making incremental changes to our daily routines, we can obtain a more environmentally sustainable lifestyle which will help to preserve our environment.
Did you Know?

Pandemic Relief for Farmers and Hungry Americans

The coronavirus pandemic has altered the lives of millions of people in the United States and around the world. With the loss of jobs, increase in mental health issues, food insecurity on the rise and economic uncertainty, citizens and industries have undoubtedly felt the blow, including farmers and the agriculture industry.

Pennsylvania’s agriculture industry is a significant economic driver for the state. According to the Pennsylvania Department of Agriculture, the state generated over $1 billion in exports of agricultural, food and wood products in 2000 -- a record for the Commonwealth. Given the current pandemic situation that has disrupted the food supply chain, farmers here in the Commonwealth and across the nation have been forced to dump out milk and throw out the produce they have grown.

While the news and media has covered significant amounts of stress-induced reporting about the negative impacts of COVID-19, it is important to highlight some of the good that is being done in response to this pandemic -- in particular for those who are struggling during these challenging times.

As a way to help struggling farmers in their communities, Publix Super Markets, a grocery store chain based in Florida, recently pledged to buy fresh produce and milk from farmers that would otherwise go to waste as a result of the excess of goods due to the pandemic. The fresh produce and milk that is purchased from the farmers by Publix will then be donated to Feeding America food banks.

This Month in Conservation History

A look back at the evolution of environmental stewardship

11 Years Ago

The digital transition in the United States was the switchover from analog to exclusively digital broadcasting of television programming. This transition represented one of the most significant advancements of television technology since color TV was introduced. The transition went into effect on June 12, 2009, with stations ending regular programming on their analog signals no later than 11:59 p.m. that day.

After television broadcasters turned off their analog signals nationwide in favor of digital, millions of people threw away their old glass cathode ray tube televisions and replaced them with sleeker flat-screen models. Since then, thousands of old televisions and other electronic waste have been surreptitiously unloaded in landfills and on roadsides across the state. Stalled prices in the recycling commodities market and the steep costs for properly recycling CRTs, has exposed shortcomings in the 2010 Covered Device Recycling Act designed to improve Pennsylvania’s environmental policies.

During that time the Joint Legislative Conservation Committee held a number of public hearings on the issue, held roundtable discussions with stakeholders and examined systems in place in other states. For example, in March 2016 the Committee held a public hearing to review the CDRA and some of the problems identified by stakeholders. The Committee heard from various testifiers including Rep. Chris Ross, prime sponsor of the 2010 state law. Despite their diverse backgrounds, the testifiers confirmed that a comprehensive amendment is needed to correct market imbalances.
the authority to plan, recommend and carry out, or provide assistance to local governments in carrying out programs for the reduction of flood damage problems. Coordination among these agencies is necessary to avoid duplication of effort and to arrive at solutions that are acceptable to each agency.

Pete Duncan, executive director of the Committee at that time, made a concerted effort to keep the members of the General Assembly informed of all developments. These efforts included numerous briefings, informal meetings, and extensive correspondence with legislators to allow them to evaluate and propose legislation on the flood control alternatives in the basin. Proposed legislation included changing flood plain zoning so that more dams and reservoirs could be built.

The severe flooding near the borough of Lawrenceville, in Tioga County, was the catalyst for the construction of the Tioga Reservoir in 1973. The flooding in Wilkes-Barre led to the construction of a system of dikes and floodwalls that in 2006 successfully prevented massive flooding.