THE EPA BUDGET – WHY IT MATTERS
Key Messages
October 17, 2017

THE BUDGET – CRITICAL TO PROTECTING PEOPLE'S HEALTH AND THE ENVIRONMENT

The EPA budget is the fuel that keeps the agency's engines running. Without adequate funding, EPA cannot fully meet its obligations to the American people to protect their health and the environment in which they live, work and enjoy this country's vast natural resources. The drastic budget reductions facing the agency will have a direct and lasting effect on our health and our quality of life.

- The Trump Administration proposed a 31% cut of EPA's budget for fiscal year 2018, revealing its intention to gut the agency and hamper many of its critical functions. The proposed cuts follow years of declining budgets.

- On September 13, 2017, the House approved a budget for fiscal year 2018 that slashes EPA's budget to $7.4 billion – a reduction of $656 million – 8% below current funding. After adjusting for inflation, this is the smallest EPA budget in thirty years.

- Even more damaging, the cuts are focused on EPA's core functions, making even deeper cuts in those areas than Trump requested – 27% below the current level. These are the programs that protect air, water and drinking water; address the harmful effects of pesticides, chemicals and hazardous waste; enforce environmental rules and regulations; advise on the legality of agency decisions; and many other functions. Deep cuts are also made in the offices that conduct research that advances environmental science.

- These cuts strike at the heart of EPA's essential responsibilities and undercut the ability of EPA staff to adequately perform the basic work on which EPA Administrator Scott Pruitt asserts the agency should focus.

ESSENTIAL WORK AT RISK

For almost 50 years, dedicated EPA employees have worked daily to provide a cleaner and healthier environment for the American people. Their contributions advance the protection of the air, water and land through activities and actions that underpin EPA's core mission. Consider the implications for public health and the environment if EPA is not provided adequate resources to perform its core functions.

Clean Air

- Dirty air contributes to serious health problems including lung and heart disease, asthma attacks and other respiratory conditions and even premature births. Using the regulatory tools Congress gave to the Agency, EPA develops policies, programs and regulations to improve air quality and exposure to radiation.
    - These include controls on industrial air pollution, pollution from vehicles and engines, indoor air quality, radon, radiation hazards, acid rain and climate change. Among the tools are pollution prevention and energy efficiency.
        - **Improved Air Quality** – Thanks to EPA, Americans no longer experience black soot on our windowsills that worked its way into our lungs and caused disease. Skies are generally blue, not gray or hidden behind a cloud of visible pollution. This is because EPA scientists and other experts review air quality monitoring, determine whether the existing pollution is harmful and set

enforceable standards for power plants, chemical factories and other industrial facilities to protect people's health.

- **Improving Air Quality from Vehicles** – The public has experienced staggering improvements in air quality, public health and fuel efficiency as a result of EPA attention. Cars and trucks are 99% cleaner, protecting people's health and saving lives. Increased fuel efficiency has saved consumers millions of dollars in fuel costs. Cars routinely now use catalytic converters, unleaded gasoline and on-board computers – all of which can be traced to EPA reforms; those cars are both cleaner and more reliable. These achievements would not have been possible without the innovative work of EPA's state-of-the-art National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan.
- **Working toward Better Health** –One in 12 children and adults suffers from asthma and the numbers are going up every year, verified by the Centers for Disease Control and Prevention (CDC). EPA has been at the forefront of efforts to understand the indoor air pollutants that trigger asthma attacks and raise public awareness about how to prevent them, working with partners such as CDC, the American Lung Association and others.
- **Monitoring the Air** – EPA shares its outdoor air quality monitoring data, collected from a network of state, local and tribal government agencies. As a result, Americans can track air quality in their communities and use the data to determine if the air is healthy enough for outdoor activities. This is particularly important for people suffering from respiratory or coronary disease and vulnerable children and seniors.

Clean Water

- EPA has been entrusted by Congress with the responsibility of keeping America's rivers, lakes and streams clean, and guaranteeing safe drinking water.
  - **Safeguarding Drinking Water** – Water is essential to living but we rarely think about where it comes from and why (unlike many parts of this world) our tap water is safe to drink. One of EPA's many responsibilities is to be sure that water from below the surface aquifers and rivers, lakes and streams are free of bacteria, viruses and cysts that can cause diarrhea and other waterborne illnesses, and of chemical contamination**.**
    - EPA uses science to identify which drinking water contaminants to regulate and sets limits on the amount of contaminants allowed in public drinking water supplies. Public water utilities are required to publish annual drinking water quality reports, making it easy for consumers to know whether the water in their communities is safe.
    - Millions of people get their drinking water from rivers, lakes and streams that are impacted by the runoff of nitrogen and phosphorus from agriculture, wastewater discharges, fertilizers and even pet waste when it rains. This can cause an overgrowth of algae that contains bacteria that can produce a toxin that can contaminate drinking water. As of early October 2017, 700 square miles of the western basin of Lake Erie was covered in an algae bloom, threatening the water supply for almost three million people who get their drinking water from the lake's central basin.

  - **Protecting the Nation's Waterways** – Between the Atlantic and Pacific Oceans, there are over 3.5 million miles of rivers and streams that travel through every state in the Nation. EPA is responsible for protecting those freshwater rivers, lakes and streams; 28 estuaries where freshwater from rivers and streams mixes with salt water from the sea; and coastal and ocean ecosystems and their watersheds and wetlands. EPA regulates and monitors ocean dumping and discharges from vessels, works to reduce trash in the oceans and marine debris, sets controls on polluted runoff and restores polluted waters considered "impaired" because they don't meet water quality standards.

- **Valuing our Estuaries** – Over one half of the U.S. population lives in coastal areas, home to numerous estuaries. As of 2012, these areas provided over 80 percent of all U.S. jobs and contributed $13 trillion to the U.S. economy through tourism, fisheries and recreation. The EPA National Estuary Program works with businesses, states, localities and other partners to be sure that pollution does not prevent healthy swimming, fishing and other recreational activities; restores millions of acres needed for fish and wildlife habitats, recreation and commercial fishing; and works to eradicate non-native species that threaten to overcome native species. Some examples of prominent estuaries with significant population centers include Buzzards Bay, Long Island Sound, Puget Sound and San Francisco Bay.
- **Restoring Water Quality** – A sad legacy from the days before EPA and on-going pollution is the many "impaired" rivers, lakes and streams that need remedial action and a close attention to assuring that new pollution doesn't further impair their quality. Setting "total maximum daily loads," is one tool EPA uses. Goals are set, data is collected and evaluated and actions are taken to return the waters to their original healthy states.
- **Controlling Ocean Dumping** – Historically, the ocean was used to dispose of chemical, industrial and radioactive waste, trash, munitions, sewage sludge and contaminated materials dredged from coastal shorelines on the theory that dilution is the solution to pollution. Uncontrolled dumping has contaminated some areas of the ocean with high concentrations of heavy metals, nutrients and petrochemicals, causing the depletion of oxygen needed to sustain life for fish and other marine organisms. One such place is the economically critical New York-New Jersey Harbor. Since 1972, when Congress passed the Marine Protection, Research and Sanctuaries Act, EPA has taken on the responsibility of ocean dumping of materials that would have a negative impact on human health and the marine environment. U.S. coastal waters are healthier, fish and other organisms have returned to their habitats and the disposal of dredged material is managed safely.

- **Supporting Rural Communities –** Rural communities in Alaska and along both sides of the U.S. border-Mexico border still lack basic drinking water and sanitation infrastructure such as flush toilets and running water. EPA has been tasked by Congress to provide funds for drinking water and wastewater treatment projects in these communities. The result is reduced rates of waterborne disease and lower health costs for treatment because fewer people are exposed to raw sewage and drinking water contaminants.

Contaminated Land

Congress gave EPA responsibility for cleaning up some of the Nation's most contaminated land and responding to environmental emergencies, oil spills and natural disasters.

- **Superfund** –Cleaning up sites contaminated by hazardous waste is not an easy task. Assessments of the risks requires good science and investigatory skills. It begins with a preliminary investigation and assessment asking if site contamination is risky for people and the environment and whether the dangers should be addressed immediately. The site might then be added to the National Priorities List (the country's most contaminated hazardous waste sites) and scheduled for cleanup. Sites on the National Priorities List proceed to the Remedial Investigation/Feasibility Study phase of the cleanup process during which the type and extent of the contamination is evaluated, potential threats to health and the environment are assessed and the feasibility and cost of cleanup options is identified. EPA then proposes a cleanup plan and, after public input, finalizes the plan in a Record of Decision. The cleanup will proceed in multiple phases depending on the type of contamination that must be addressed – air, water, soil or sediment or a mixture – the extent of the contamination and the treatment or disposal options selected.

- One stellar example of a Superfund success (among many) is the historic cleanup of the Hudson River in upstate New York where two General Electric capacitor plants deposited about 1.3 million pounds of PCBs into the Hudson River and its sediment over 30 years. Contaminated fish were too dangerous to eat and the local commercial fishing industry was shut down. In 1984, EPA designated 200 miles of the Hudson River a Superfund site. The communities along the Hudson were divided on how to repair the damage. Many feared that dredging would stir up the contaminated sediment; some accepted GE's assertions that the river would clean itself. The cleanup would not have been possible without the collaboration of EPA scientists, engineers, hydrologists, community engagement specialists and other experts who developed a cleanup plan with water quality monitoring and other measures to protect local communities and reached out to every sector of the community to ensure everyone understood the science behind the solution.

- **Emergency Response** – In the aftermath of a hurricane, a terrorist attack or the wildfires burning across California, you'll find EPA's highly trained teams of emergency personnel on-the-ground working closely with federal, state and local first responders. Their contribution is to monitor the air, take samples of potentially contaminated water and soil, identify threats to drinking water supplies, assess wastewater treatment facilities, evaluate hazardous waste sites, collect containers of hazardous debris and assist in the proper disposal of household hazardous waste.
  - On September 11, 2001, while people were fleeing the city in panic, emergency responders immediately headed *into* New York City from EPA's New Jersey Response Center. They remained on-site at Ground Zero for months. The same happened when Hurricane Katrina struck New Orleans; emergency response personnel from Atlanta and Dallas were in place along the Gulf Coast ready to coordinate the massive environmental response with FEMA and multiple state agencies. When a devastating tornado hit Joplin, Missouri, killing 150 people and injuring hundreds more in 2011, personnel from Kansas City went in to assess the damage, monitor the air for asbestos and other dangerous air pollutants, and collect and properly dispose of hazardous debris and electronic waste. Currently, dedicated EPA staff are in Florida, Texas, Puerto Rico, the U.S. Virgin Islands and other states doing their part in response to this season's devastating hurricanes.

Chemicals and Pesticides

EPA's responsibilities to protect the American public from toxic chemicals and pesticides includes a science-heavy program to evaluate new and existing chemicals and their risks, and find ways to prevent or reduce pollution before it gets into the environment.

- **Chemical Safety** –Chemicals affect almost every aspect of our lives. It is EPA's job to evaluate their safety. EPA scientists prioritize chemicals for further assessment, thereafter determining if the chemicals pose an unreasonable risk to people's health or the environment under conditions set for their use. The final step is for EPA to take a variety of actions to eliminate the unreasonable risk they pose to human health or the natural world that we live in and depend on.
- **Pesticides** – Pesticides are deliberately developed to kill pests, but they can also be very harmful to people. Exposure can cause neurological problems and aggravate asthma, allergies and other respiratory illnesses. They have been linked to cancer, hormone disruption and fetal development and reproductive problems. Children, especially small children are especially vulnerable and are exposed through food, liquids and breathing. Farm workers, who are routinely exposed to pesticides in the fields, also face increased risks.
  - **Pesticide Registration** – One of EPA's most important roles is the registration of pesticide products to ensure they will not harm people if instructions on their labels are followed. Sadly, unregistered and illegal pesticide products marketed to kill mice and other household pests are sold on the street or in small neighborhood stores. Children can easily mistake colorful mothballs containing toxic chemicals for

candy and an illegal insecticide chalk with labels in Chinese and English claims it is "safe to use." EPA has taken legal action against stores that endanger customers by selling illegal pesticides and conducted extensive outreach in multiple languages to help people understand the risks they face.
    - **Protecting Food –** Pesticides used in agriculture can linger in the food that is produced. Congress has told EPA to evaluate the safety of pesticides used on food and ensure that they meet strict standards that protect children. Using this authority, the agency has canceled or restricted the use of 270 pesticides for use on food or in homes because they posed particular threats to children and infants. Between 1995 and 2013, for example, children's exposure to a group of insecticides that affect the nervous system fell by 70% after EPA canceled or restricted their use.
- **Pollution Prevention –** It is more effective not to produce pollution in the first place than to try to fix it after it endangers the American public. EPA works with an incredibly diverse group of industries to reduce, eliminate or prevent pollution at its source. The results have been changes in production, operations, building practices and the use of raw materials that reduce energy use, divert materials from landfills, save companies money and are sustainable.
    - **Green Sports –** One innovative example of EPA's pollution prevention efforts is the Green Sports program, which has reduced operating, waste and disposal costs, decreased energy bills, expanded markets for green products and services, improved employee safety through the use of safer products and demonstrated environmental responsibility in professional and collegiate sports venues across the country. In one year, National Hockey League teams recycled 105 tons of untouched food and greening of the 2012 Super Bowl Game alone prevented the emission of 642 metric tons (1.3 million pounds) of greenhouse gases.

Hazardous Waste

- In our modern society, manufacturing, industrial processes and discarding of commercial products from batteries to household cleaning fluids generate huge amounts of hazardous waste that threaten people's health and the environment. They can be liquids, gases, solids or sludge. Some are toxic, others corrosive or flammable.
    - **Improved Management** –The 1976 Resource Recovery and Conservation Act directed EPA to ensure that hazardous waste is managed safely from "cradle to grave"-- from the time is it created, during transport, treatment and storage and through its disposal. But EPA has found a better way to protect the public from hazardous waste. Over many years, the agency has helped a broad range of industries transition to less polluting materials and change their processes and procedures to protect people's health and the environment. The public benefits and the companies save money.
    - **Reducing Dry Cleaning Hazards** – Perchloroethylene or perc, the main chemical historically used in dry cleaning can irritate the upper respiratory tract and eyes, cause kidney problems and neurological effects such as mood and behavior changes, dizziness, impaired coordination and headaches. In urban areas like New York City, many dry cleaners operate on the ground floor of apartment buildings directly below families or adjacent to restaurants and grocers. Community complaints about improperly operated, vented and stored chemicals at dry cleaners across the city prompted EPA to take a close look and then to reach out to many small business owners to improve conditions. As a result, the use of perc machines in residential buildings is being gradually phased out and many dry cleaners have replaced polluting chemicals with green alternatives, some happily advertising that to generate new clients.

Environmental Enforcement

- When President Richard Nixon created EPA in 1970 it was with the express purpose of establishing "an autonomous regulatory body to oversee the enforcement of environmental policy." Far from being onerous,

this has been a productive process to protect people's health and the natural world they live in, prevent pollution and support the responsible use and protection of this country we share. An important part of this is making sure all individuals and companies follow the rules. For this, EPA uses "civil" actions and in the worse cases, where intent is bad, "criminal" enforcement.

- **Providing Reliable Data** – Fair and independent data is critical in understanding whether the rules are being followed. EPA's multiple data systems monitor polluting facilities and track enforcement actions; this data helps states who have enforcement responsibilities. An online database allows the public to track whether facilities in their communities are in compliance; it had over 3.5 million page views during the past year.
- **Inspecting Facilities** – Nothing beats on-the-ground inspections to ensure that regulated facilities are complying with federal rules and regulations. Throughout the country, EPA trained and certified inspectors travel vast distances to meet with facility representatives, review records and reports, take photographs and samples and observe operations.
- **Stopping Environmental Crimes** –Sometimes companies willfully put communities at risk. Criminal enforcement is used to catch companies that cause deaths and serious injuries by cutting corners and lie about pollution from their facilities. Preparing criminal cases can be labor intensive, involving extensive legal and scientific research, data collection and analysis and investigations. But the results are critically important for the communities exposed to danger by companies that don't follow the rules.
  - In Tonawanda, New York, residents were exposed for many years to toxic air pollution from the Tonawanda Coke Corporation plant, which supplies raw materials for steel production. Air monitoring revealed high levels of benzene in the air from the plant. EPA provided grant funds to the local Clean Air Coalition and supported the community's efforts to force the company into compliance. These efforts ultimately led to a criminal case that required the company to significantly reduce its benzene emissions and resulted in a $12.5 million fine and jail time for the plant's environmental manager.
- **Pursuing Polluters** – The pursuit of those responsible for contamination at Superfund sites across the country is critical to their cleanup. Superfund has a long-standing policy that polluters pay for cleanups, but when parties that created the contamination cannot be found, are no longer alive or are bankrupt, the government must cover cleanup costs. Identifying those responsible for contamination is resource intensive, but it pays off in lowered government costs. Every dollar spent on efforts to get the polluters to pay returns about $8 in cleanup commitments, a worthwhile investment.

Scientific Research

- Science at EPA is the foundation for everything the agency does -- policies, actions and decisions that protect people's health and the environment. The agency's science and engineering meets the highest standards for integrity, peer review, transparency and ethics. It continues to have far-reaching and lasting positive impacts:
  - **Cleaner Air, Longer Lives** – EPA's clean air research provided the basis for National Ambient Air Quality Standards that have translated into improved health, increased life expectancy and decreased spending on hospitalizations and related medical needs.
  - **Faster, More Efficient Chemical Screening** – EPA scientists have developed faster, far less expensive chemical testing and screening tools and techniques that provide critical insight into the links between chemical exposure and potential health effects.
  - **Finding Innovative Solutions –** EPA has been at the forefront of research to develop innovative solutions to some of the world's most pressing and complicated environmental problems. Two such efforts are in contention for prestigious awards from Harvard University's Ash Center for Democratic Governance and Innovation.

- **Citizen Science and Crowdsourcing –** More than five years ago, EPA recognized the values of "citizen science" – research and data collection by nonprofessionals -- and "crowdsourcing" to increase the flow of information and ideas put to work on challenging issues. Today, EPA co-chairs a group representing over 60 federal agencies that facilitate crowdsourcing and citizen science. One of the group's efforts is CitizenScience.gov, a searchable website created in partnership with the White House Office of Science and Technology Policy that assists the public and federal agencies on collaborative efforts to find solutions to complex problems.
- **The Village Green Project** - The project is an EPA-led, community-based research effort to demonstrate real-time air monitoring technology, engage the public in learning about local air quality and collect high-quality data for research. Working with state and community partners, the Village Green team installs park benches that measure two common air pollutants, ozone and fine particles, plus wind speed and direction, temperature and humidity in real time using low cost technology. The data is transmitted to a public website every minute. Monitoring stations have been set up at schools, community parks and other easily accessible locations in Houston, Washington DC, Durham, NC, Kansas City, Philadelphia, Oklahoma City, Hartford, CT and Chicago.

For Further information
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