

The Rapids: US EPA's Trash Free Waters Monthly Update July 2021

<https://www.epa.gov/trash-free-waters>

Introduction

Hello all,

Happy Plastic-Free July! I encourage you to read the [U.S. Plastics Policy Roadmap to 2025](#), which was recently released through a collaboration between the U.S. Plastics Pact, a consortium led by the Recycling Partnership and World Wildlife Fund (WWF) as part of the Ellen MacArthur Foundation's (EMF's) global Plastics Pact network, and the Product Stewardship Institute (PSI). This roadmap engages nearly 100 organizations and outlines steps to realize a circular economy for plastics in the United States.

I also recommend reading the Benioff Ocean Initiative's newest white paper, [U.S. Plastic Waste Capture in Rivers: An Inventory of Current Technologies](#), which serves as a guide for identifying the best-fit trash capture technology to suit an organization's specific site, resources, and goals.

Please continue to share any upcoming events with Layne Marshall (marshall.layne@epa.gov) so that the Trash Free Waters team can advertise these opportunities with all of you on the first Monday of each month.

Thanks,
Romell Nandi
US EPA
Trash Free Waters Program Lead

EPA Announcements

Trash Free St. Louis Project Update

The EPA's Trash Free St. Louis project was recently highlighted in a local newspaper as part of a growing movement to "prevent more, pick up less." The article features several images of an EPA-funded Trash Trout, a litter collection device, being cleaned out. This trash trap is installed in Deer Creek, a tributary of the River des Peres watershed and Mississippi River drainage basin. Read the full article [here](#).

Trash Capture in Toledo

On June 22, the city of Toledo installed the first of seven trash capture devices planned for deployment in waterways flowing into Lake Erie. The remaining devices will be installed by the end of summer and will catch debris before it reaches the lake. The purchase of these trash traps was made possible through an almost \$415,000 GLRI Trash Free Waters grant awarded last year to the city, which is partnering with Partners for Clean Streams, the University of Toledo, Keep Toledo-Lucas County Beautiful, the Toledo Metropolitan Area Council of Governments, and Toledo Public Schools over a two-year period to accomplish the project. Read more about the effort [here](#) and [here](#).

Funding Opportunities

Stay Stoked Student Awards

The application period for the Algalita Wayfinder Society's Stay Stoked Awards is now open for ages 11-20 who are working to solve plastic pollution and related social justice issues. This award is open to those looking for financial support for their personal education and development, school efforts, community projects, internships, networking events, etc. connected to addressing the plastic crisis. A total of \$15,000 will be awarded through the program. Applications are open until July 14. Read more about the opportunity [here](#).

District of Columbia Community Stormwater Solutions Grant Program

In partnership with the Chesapeake Bay Trust, this program provides funding for innovative and community-centered projects with the goal of improving waterways in the District. Project areas can include environmental justice, environmental education, green infrastructure, green jobs, litter and pollution reduction, and more. The total amount of funding available is \$200,000. Applications are due July 16 at 6PM EDT. Learn more [here](#).

Joanna Toole GloLitter Grant

The GloLitter Partnerships Project, funded by the Norwegian Agency for Development Cooperation (Norad) and led by the International Maritime Organization (IMO) in partnership with the Food and Agriculture Organization of the United Nations (FAO) and the Ocean Conservancy recently launched this grant program. This opportunity will fund projects that address the problems of marine plastic litter (MPL) and abandoned, lost, or discarded fishing gear (ALDFG). Applications are due July 19. Access application materials [here](#).

South Florida Geographic Initiative RFA

One of the 13 priorities laid out under the 2021 South Florida Geographic Initiative RFA is water quality and seagrass monitoring, where projects are encouraged to help quantify environmental impacts from land-based pollution. Applications must be submitted via Grants.gov (Funding Opportunity Number EPA-R4-SFL-2021-01) by July 26. Read more about eligibility and the application process [here](#).

Future Blue Youth Fellowship

The Bow Seat Ocean Awareness Program's Future Blue Youth Council (FBYC) Fellowship Program provides mentorship and \$250-\$1,000 grants to young people (ages 13-19) who are developing projects that address water-related challenges in their local communities. This program is a new initiative led by the Future Blue Youth Council, a diverse group of young people from around the globe, working together to empower their peers to advocate for their future and for our environment. Grant applications are due on August 1. View more details about eligibility [here](#).

EPA Small Business Innovation Research (SBIR) Grants

EPA's 2021-2022 SBIR Phase I solicitation calls for small businesses to apply for funding for projects which showcase the development and commercialization of an innovative technology related to Sustainable Materials Management (i.e. tech that helps consumers prevent food waste in the acquisition, preparation, and storage of food, improve the U.S. recycling system, and/or low impact reusable and recyclable material alternatives to low value plastic items that escape management) or Clean and Safe Water (i.e. tech to process microplastics samples and/or remove microplastics from wastewater or stormwater). Phase I applications are being accepted

until August 3. More information about the SBIR program solicitation, application process, and award can be found [here](#).

EPA Gulf of Mexico Division Trash Free Waters RFA

EPA's Gulf of Mexico Division issued the Healthy and Resilient Gulf of Mexico 2021 Request for Applications (RFA) on June 1. The RFA consists of four separate funding opportunities, one of which is titled "Trash Free Waters – Preventing More, Picking Up Less." This TFW RFA seeks projects focused on preventing trash from reaching our waterways and must take place within 25 miles of the coastal zone of one of the five Gulf States, or within several upstream, inland metropolitan statistical areas (MSA). Approximately \$4,000,000 is expected to be made available for 8 to 16 projects. Applications are due by August 6. Learn more about the funding opportunity and eligible project types and locations [here](#).

GLRI Nonpoint Source Runoff & Nutrient Reduction Projects

The Great Lakes Restoration Initiative recently released a \$9 million funding opportunity for projects which address stormwater runoff pollution from land into water bodies. Projects which focus on green infrastructure in shoreline communities, riparian restoration to reduce runoff, or address legacy phosphorus in agricultural settings will be considered. Applications must be submitted via Grants.gov by August 20. Read more about eligibility and the application process [here](#).

Tom Ford Plastic Innovation Prize

Tom Ford and 52HZ are offering \$1.2 million to the innovators who create the best replacement for thin-film plastic; one that can be used in everything from polybags (the fashion industry's packaging of choice) to single-use, resealable sandwich and storage bags. This opportunity is a two-year competition, followed by three years of support for competition finalists, designed to incentivize the development and adoption of these alternatives to thin-film plastic. The submission window closes on October 24. Read more [here](#).

Other opportunities...

2021 Healthy Ocean Advocacy Trainings

The application is now open for the Healthy Ocean Coalition's July 2021 Healthy Ocean Advocacy Training cohort. These trainings will equip attendees with knowledge, messaging, and refreshed advocacy skills to effectively speak to decision-makers about a range of issues impacting our oceans. This training is scheduled to take place on Tuesdays and Thursdays, July 13 & 15 and July 20 & 22 from 1-4pm EDT. Trainees must commit to attending all four sessions. Apply to join [here](#).

Save the Dates/Calendar

July 8th (12PM EDT): Powering Sustainability and Circularity with Connected Products

Along with creating engaging digital consumer experiences, brands are also enabling circularity, driving sustainability and providing digital traceability of the entire supply chain. This GreenBiz webinar will include discussion around how companies are championing sustainability and furthering their circularity agendas by directly involving consumers through recommerce and upcycling, how end-to-end supply chain traceability can enable circularity across many industries (including apparel, food, beauty and pharma), and more. Register [here](#).

July 12th (5PM EDT): A Whole of Society Response - Te Moananui (Oceania) Non-State Actors and the Plastic Pollution Crisis

This webinar will be hosted by the Environmental Investigation Agency (EIA) in partnership with the Center for International Environmental Law (CIEL) and Secretariat for the Pacific Regional Environment Programme (SPREP). Join to discuss approaches to curbing plastic pollution in the Pacific and ways to inform and influence regional and global plastic policy action. Register for the event [here](#).

July 14-17th: National Marine Educators Association Virtual Conference

The National Marine Educators Association (NMEA) is hosting their annual conference under the theme “Your Connection to Water,” focusing on our personal connection to water. A variety of topics including conservation, ocean literacy, and traditional knowledge will likely be discussed. View the conference schedule and register [here](#).

July 15th (2:30PM EDT): Big Data for Trash Monitoring Programs Big or Small

This webinar, the sixth in the California Trash Monitoring Webinar Series, will feature presenter Win Cowger, Ph.D. student and NSF graduate research fellow at the University of California Riverside. This presentation will discuss leveraging big data tools (e.g., open data, trash taxonomy, AI, machine learning, web applications, etc.) to turn data into information leading to action. View how to participate in the webinar [here](#).

July 16th (2PM EDT): Extended Producer Responsibility (EPR) Coffee Hour

Join Beyond Plastics, Conservation Law Foundation, National Stewardship Action Council, UPSTREAM, and Break Free From Plastic US for a free informal "coffee hour" conversation to talk about the latest EPR proposals and what to look for to make sure the goals are achieved. Register for the event [here](#).

July 20th (11AM EDT): Recycling Revisited- Plastic

This webinar is offered as part of the Southeast Recycling Development Council’s (SERDC) “Recycling Revisited” webinar series. This event will focus on plastics especially, and cover the impact of brand commitments, supply chain shortages, and other market considerations on today’s market volatility. Register [here](#).

July 20-22nd: Mid-Atlantic Marine Debris Regional Summit

Each of the three virtual half-day sessions of this summit will inspire collaboration and empower partners to work on solutions to marine debris. Attendees will represent state and federal agencies, NGOs, academia, and other groups tackling marine debris in the five Mid-Atlantic coastal states (New York, New Jersey, Delaware, Maryland, and Virginia) and Washington, DC. The public is also encouraged to participate. Agenda and registration details are available [here](#).

July 28th (3PM EDT): Plastic Free Periods- Protecting Our Bodies & Preventing Plastic Pollution

In this webinar, hosted by the Plastic Pollution Coalition, expert panelists will discuss the connections between plastic pollution, menstruation, and social change. Register for the event [here](#).

July 28th (3PM EDT): Salvaging Solutions - Oil and Hazmat Issue

Join for the fifth webinar in the NOAA Marine Debris Program’s series, Salvaging Solutions to Abandoned and Derelict Vessels Webinar: Oil and Hazmat Issues. Join the webinar via Adobe Connect [here](#).

Save the dates for future months...

August 17th (4PM EDT): Working towards a global plastic pollution treaty - Process and possibilities

This webinar will discuss why 130+ countries have declared support for a global agreement to combat marine litter and microplastics and what this treaty could look like. Speaker Dr. Trisia Farrelly of Massey University is an environmental anthropologist, co-founder of the New Zealand Product Stewardship Council and the Aotearoa Plastic Pollution Alliance and has been a member of UNEA's Expert Group and the United Nations Environment Programme's Scientific Advisory Committee on Marine Litter and Microplastics since 2017. Register for the event [here](#).

August 19th (2:30PM EDT): California Coastal Cleanup Day – History, Data, Action, and Community Engagement

This webinar, the seventh in the California Trash Monitoring Webinar Series, will feature presenter Eben Schwartz, Marine Debris Program Coordinator at the California Coastal Commission. This presentation will discuss how cleanups can offer a way for volunteers to respond to the threat of trash in our environment. View how to participate in the webinar [here](#).

August 25th (3PM EDT): Salvaging Solutions - Coordination Success Stories and Lessons Learned

Join for the sixth webinar in the NOAA Marine Debris Program's series, Salvaging Solutions to Abandoned and Derelict Vessels Webinar: Coordination Success Stories and Lessons Learned. Join the webinar via Adobe Connect [here](#).

September 6-9th: Estuaries and Coastal Seas in the Anthropocene Conference

This virtual conference will offer a stimulating learning and interactive experience to deepen understanding of a variety of issues facing our coastal ecosystems. The event will feature two special sessions on the impact of pollution and plastics on estuaries and the ocean. Read more and register for the conference [here](#).

September 13-15th: StormCon and Water Pro Conferences

StormCon is the stormwater and surface water quality's premier conference and exhibition hosted by Endeavor Business Media, LLC. WaterPro is the annual conference of the National Rural Water Association and is designed to bring together water and wastewater utility systems for sessions in operations, management, boardsmanship and governance. These conferences will be hosted as two parallel, in-person events at the Wisconsin Center in Milwaukee, Wisconsin. They offer different programs, however a joint exhibit hall will provide attendees with the opportunity to network with vendors and service providers from both events. Register for StormCon [here](#), and the WaterPro Conference [here](#).

September 22nd (3PM EDT): Salvaging Solutions – ADV Info Hub Reflections

Join for the seventh webinar in the NOAA Marine Debris Program's series, Salvaging Solutions to Abandoned and Derelict Vessels Webinar: ADV Info Hub Reflections. Join the webinar via Adobe Connect [here](#).

September 20-23rd: Global OCEANS 2021

Join global thought leaders and innovators in the areas of marine technology, engineering, science, research, and education to hear from industry experts and engineers regarding the latest research and innovations, discuss current environmental issues and policies affecting the field, and collaboratively work together to move the fields of marine technology and engineering forward. The event will feature a special technical session called "Ocean Clean Up: Micro to Macro." View the program agenda and register for the conference [here](#).

October 13-14th: Future of Plastics Forum

This virtual conference will assess how business can tackle plastics pollution and find solutions that drive sustainable plastics use. We will bring together key industry players from across the value chain to discuss current expectations and drivers as well as practical and realistic solutions that are innovative and scalable. This event will bring together 200+ key actors from across the globe, including speakers from organizations such as **Unilever, Coca-Cola Europacific Partners, The Body Shop, and The Consumer Goods Forum**. View the full agenda and register [here](#).

October 27th (3PM EDT): Salvaging Solutions – Vessel Disposal

Join for the eighth webinar in the NOAA Marine Debris Program's series, Salvaging Solutions to Abandoned and Derelict Vessels Webinar: Vessel Disposal. Join the webinar via Adobe Connect [here](#).

October 27-30th: Conservation Marketing Conference

The ConsMark 2021 conference theme is "Changing Behavior in a Changing Climate." This virtual event will feature presentations on a wide range of environmental topics from traditional ecological knowledge to marine pollution and plastics. Register for the conference [here](#).

In case you missed it...

Ellen MacArthur Foundation Summit21

A series of three, 1-hour session recordings were recently made available by the Ellen MacArthur Foundation, including "Fix the economy, fix the climate," "Growth in a circular economy," and "Shifting the system." Access the recordings [here](#).

Rising to the Global Challenge of Ocean Plastic Pollution

This webinar, hosted by Ocean Conservancy and USAID on World Oceans Day last month, brought together policymakers, leading experts, and local problem solvers to discuss ways to ensure that the growing international efforts to combat ocean plastic pollution crisis are effective and beneficial. Watch the recording [here](#).

Achieving Zero Waste with Innovative Reuse and Recycling Contracts

Did you miss last month's EPA Sustainable Materials Management webinar? You can now access the recording and slides for "Achieving Zero Waste with Innovative Reuse and Recycling Contracts" [here](#). During this webinar, guest speakers shared their strategies for achieving net zero waste and transfer station salvage, reuse, and recycling contracts.

Marine Pollution – A Caribbean Perspective

A recording of this May 19th WasteWise webinar on the escape of waste into the Caribbean marine environment is now accessible [here](#). This panel highlights the innovative work being done in Trinidad and Tobago, Jamaica and St. Lucia.

Recent Legislation

Plastic Waste Reduction and Recycling Research Act

The Plastic Waste Reduction and Recycling Research Act calls for the establishment of a "Plastic Waste Reduction and Recycling Research Program" to improve the global competitiveness of the U.S. plastics recycling industry, ensure U.S. leadership in plastic waste

reduction, reuse, and recycling research/innovation, and mitigate the harmful effects of plastic waste and plastic waste recycling. Read the full bill [here](#).

Plastic Pellet Free Waters Act

The Plastic Pellet Free Waters Act was introduced in the Senate this spring and then referred to the Committee on Environment and Public Works. If enacted, this bill would limit the discharge of plastic pellets or other pre-production plastic materials (including discharge into wastewater and other runoff) from plastic-production related facilities. Read the bill text [here](#).

Local Water Protection Act

On June 16th, the Local Water Protection Act passed in the House and was referred to the Senate. If enacted, this bill would amend the Federal Water Pollution Control Act to reauthorize certain programs relating to nonpoint source management. Read the bill text [here](#).

Ocean-Based Climate Solutions Act

The Ocean-Based Climate Solutions Act was reintroduced on June 6th. The updated version of this bill includes a 5-cent “virgin plastic excise tax” on virgin plastic in manufactured single-use products such as packaging (with exemptions for medical products and personal hygiene products) and places the money in a Virgin Plastic Trust Fund. Read the full bill [here](#).

The Microplastics Breakdown

MICROPLASTICS FATE AND TRANSPORT

Biofilm Growth on Buoyant Microplastics Leads to Changes in Settling Rates: Implications for Microplastic Retention in The Great Lakes

Patricia O. Semcesen, Mathew G. Wells

The article described the ability for dispersal of microplastics (MPs) from their sources as depending on the particle's density, which can change over time due to microbial growth, i.e., biofilm. This study quantifies biofilm-induced sinking rates of irregularly shaped fabricated polypropylene MP granules by exposing these granules to lake water with controlled light and temperature conditions. The authors found that biofouling alone can increase MP particle density sufficiently to lead to settling. Smaller particles (~125–212 μm) were found to sink sooner (18 days) than larger particles (~1000–2000 μm , 50 days) under constant environmental conditions. This difference was determined to mean that smaller particles are deposited closer to their sources relative to larger particles. The authors also developed a mathematical model based on settling velocities and lake residence times, which described the fraction of microplastics expected to become deposited after they enter lakes. Based on our measurements of settling velocities of 1–2 mm sized MPs, the authors estimated that about 99% of these MPs are lost to sediments after they enter Lakes Erie and Ontario. Biofouling was found to have led to changes in density, resulting in MPs sinking. Read the full abstract [here](#).

Environmental Emission, Fate and Transformation of Microplastics in Biotic and Abiotic compartments: Global Status, Recent Advances and Future Perspectives

Muhammad Ubaid Ali, Siyi Lin, Balal Yousaf, Qumber Abbas, Mehr Ahmed Mujtaba Munir, Muhammad Uzair Ali, Audil Rasihda, Chunmiao Zheng, Xingxing Kuang, Ming Hung Wong

This article is a literature review of a number of areas including: MPs in the atmosphere; soils; the ocean; organisms and the food web; the physical and chemical properties of MPs; sources

of MPs; MP fate and transport; and transformation mechanisms. Some of their key findings related to sources were: synthetic textiles, industrial emissions, vehicular emissions, the degradation of MP products and waste incineration are considered to be key emission sources for MPs in the atmosphere; the use of sewage sludge, atmospheric deposition, plastic film mulching and the application of fertilizers are the sources of MPs in soil; and surface runoff and leaching are the ultimate sources of MP pollution in freshwater and marine ecosystems. Their review results also indicated that particle size is one of the controlling factors determining the environmental fate of MPs and their interactions with biota. They observed that smaller MP particles, such as films, provide a larger surface area for the atmospheric transport of fragments and other pollutants. Additionally, their review results indicated that fibres and fragments are considered to be the most dominant forms of MPs in the marine environment compared to others, such as pellet and granular MPs, and constitute almost 80% of the total abundance of MPs. Read the full abstract [here](#).

Sinking Characteristics of Microplastics in The Marine Environment

Katerina Karkanorachaki, Evdokia Syranidou, Nicolas Kalogerakis

The goal of this article was to better understand why the large quantities of plastics that have entered the marine environment that should be detected floating on the sea surface are seemingly missing. The authors conducted a 300-day long field experiment to monitor the interactions between microplastics (pellets and films) and the marine environment for five types of plastic polymers. Fouling, changes in diameter, gravimetric weight and sinking velocity were monitored and the correlations between them were studied using principal component analysis (PCA). They found that density, fouling and sample form (strip or pellet) greatly affected the sinking characteristics of the polymers, leading to an increase or decrease in the sinking velocity. Based on the data they collected, they also developed mathematical expressions for the estimation of fouling attachment and the sinking velocity with respect to time for each type of plastic. Read the full abstract [here](#).

MICROPLASTICS EXPOSURE AND POSSIBLE IMPACTS ON HUMANS AND OTHER ORGANISMS

Adverse effect of polystyrene microplastics (PS-MPs) on tube formation and viability of human umbilical vein endothelial cells

Hee-Seop Lee, Darshika Amarakoon, Cheng-I Wei, Kyu Yong Choi, Dmitriy Smolensky, Seong-Ho Lee

This study investigated the effect of polystyrene microplastics (PS-MPs) on human endothelial cells – these cells form barriers between vessels and tissue and control the flow of substances and fluid into and out of tissues. Endothelial dysfunction is a condition in which the endothelial layer fails to form normally and is associated with impaired vascular function. In this study human umbilical endothelial cells (HUVECs) were treated with PS-MPs. The results indicated that there was significantly decreased cell viability associated with exposure to greater concentrations of smaller sized (< 5.0 µm) PS-MPs, with intracellular accumulation occurring in a dose- and size-dependent manner. Other dose-dependent negative effects on these cells were also observed. The authors concluded that their results highlighted that MP exposure could be a significant risk factor for endothelial dysfunction and vasculature malformation. Read the full abstract [here](#).

Exploring the Impacts of Microplastics and Associated Chemicals in The Terrestrial Environment – Exposure of Soil Invertebrates to Tire Particles

Salla Selonen, Andraž Dolar, Anita Jemec Kokalj Lyndon N.A. Sackey, Tina Skalar, Virginia Cruz Fernandes, Diana Rede, Cristina Delerue-Matos, Rachel Hurley, Luca Nizzetto, Cornelis A.M.van Gestel

This study focused on the effects of tire particles on three soil invertebrate species: the enchytraeid worm (*Enchytraeus crypticus*), the springtail (*Folsomia candida*) and the woodlouse (*Porcellio scaber*). These species were exposed to tire particles from mixed end-of-life Genan passenger car tires that were cryo-milled and sieved to the size below 180 μm . The particles were added to soil or food at varying levels of concentration. The authors found that their results suggest that tire particles can affect soil invertebrates at concentrations found at roadsides and that short-term impacts at concentrations found further from the roadsides are unlikely. However, they also pointed out that the possibility of longer-term impacts of tire particles on soil invertebrate communities further from roadsides cannot be excluded and should be further investigated. Additional research is also needed on the potential impacts of particles emitting from tires to a variety of terrestrial species representing different levels of food web. Read the full abstract [here](#).

MICROPLASTICS DETECTION AND PREPARATION METHODS

Toward the Detection and Imaging of Ocean Microplastics with a Spaceborne Radar

Madeline C. Evans, Christopher S. Ruf, Fellow, IEE

The authors observed that ocean microplastic concentrations are known to vary significantly by location, with especially high levels in the North Atlantic and North Pacific gyres. They noted that most direct measurements come from plankton net trawling made in these regions; concentrations in other regions have been estimated by microplastic transport models that depend on large-scale ocean circulation patterns. However, they pointed out that global measurements of microplastic distribution and its temporal variability are lacking. This article proposed a new method for detecting and imaging the global distribution of ocean microplastics from space. The authors described this method as using spaceborne bistatic radar measurements of ocean surface roughness and relying on an assumed reduction in responsiveness to wind-driven roughening caused by surfactants that act as tracers for microplastics near the surface. According to the authors, the presence of microplastics correlates with the suppression of roughening of the ocean surface by winds, and the concentration of the microplastics correlates with the degree of suppression. The authors found that spaceborne observations also detected temporal changes that were not resolved by the models. Their proposed approach has the potential to provide more global coverage and to resolve changes in microplastic distribution and transport dynamics on time scales of weeks to months. Read the full abstract [here](#).

A Novel Print-And-Release Method to Prepare Microplastics Using an Office-Grade Laserjet Printer: A Low-Cost Solution for Preliminary Studies

Arshya Bamshad; Hyoung J. Cho

The authors of this article attempted to address the lack of reliable inexpensive methods to accurately replicate the realistic microplastic (MP) samples extracted from environmental matrixes with the desired size and geometry. The article described the development and validation of this method and its efficacy in preparing MPs ranging from 125 μm to 500 μm . As described, this method entailed using Computer-Aided Design (CAD) software to design the desired pattern of microplastics and printing plastic particles with a resolution of 1200 dpi (dot per inch) with an office-grade laser jet printer. The authors found that microplastics prepared via the proposed method can be color-tagged, which can allow for easier detection and tracing of released microplastics for further studies, unlike other existing methods which require μ -FTIR, μ -Raman, and XPS. The consistency and accessibility of this method, the authors asserted, makes it significantly useful for designing experiments that require multitudes of microplastic samples with desired sizes and shapes. Read the full abstract [here](#).

**If you'd like to see your posting in this email, please email
Marshall.Layne@epa.gov with any suggestions!**

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