AGENDA

Sustainability Commission Meeting

7:00 PM - Monday, November 8, 2021

https://us02web.zoom.us/j/83969594494

Page

1. CALL TO ORDER
2. ROLL CALL

   Commissioner Heine
   Commissioner Bayha
   Commissioner Foley
   Commissioner Gibbons
   Commissioner Collin
   Commissioner Simmons
   Commissioner Michalowski
   Council Liaison Wilcoxen
   Staff Liaison Akers
3. PUBLIC COMMENT
4. AGENDA APPROVAL
5. INTRODUCTIONS
6. PRESENTATIONS

   6.1. Southeast Michigan Stewardship Coalition with Lisa Voelker — 3 - 46
   SEMIS Coalition Winter Newsletter 2019_2020
   NAAEE Municipal Plans__Action Agendas NAAEE

   6.2. University of Michigan Resilience Team Project Updates

   6.3. Recycle Ann Arbor with Bryan Weinert, Director of Strategy
7. CONSENT AGENDA

   7.1. Approval of minutes from October 11, 2021 — 47 - 51
   Sustainability 10-11-2021 Reg Minutes
8. WORK SESSIONS
9. RESOLUTIONS/MOTIONS/DISCUSSIONS

   9.1. 2022 Sustainability Commission Schedule Approval — 53
   2022 Sustainability Commission Schedule

   9.2. Recycle Bins Update

   9.3. Resolution to Support Durbin' Pellet Free Waters — 55 - 221
   Resolution to Support Durbin__Pellet Free Waters (UPDATED)
   BILLS-117s1507is
   BILLS-117s984is

9.4. SAW Grant Discussion 223 - 238

SAW Grant Project No. 1445-01

9.5. Storm Drain Awareness Resolution Discussion 239 - 326

- https://www.epa.gov/npdes/npdes-stormwater-program

MDOT_MS4_Kids_Stormwater_Display_150056_7
MDOT_MS4_Storm_Water__Display_150060_7
Stormwater matters
Storm-drain-art-contest-rules-and-restrictions-2018
Storm Drain Stenciling Project Handbook Cuyahoga
2014_March26_Storm Drain Art Manual_Baltimore
Storm Drain Stenciling Manual

10. COMMISSIONER REPORTS

11. PUBLIC COMMENT

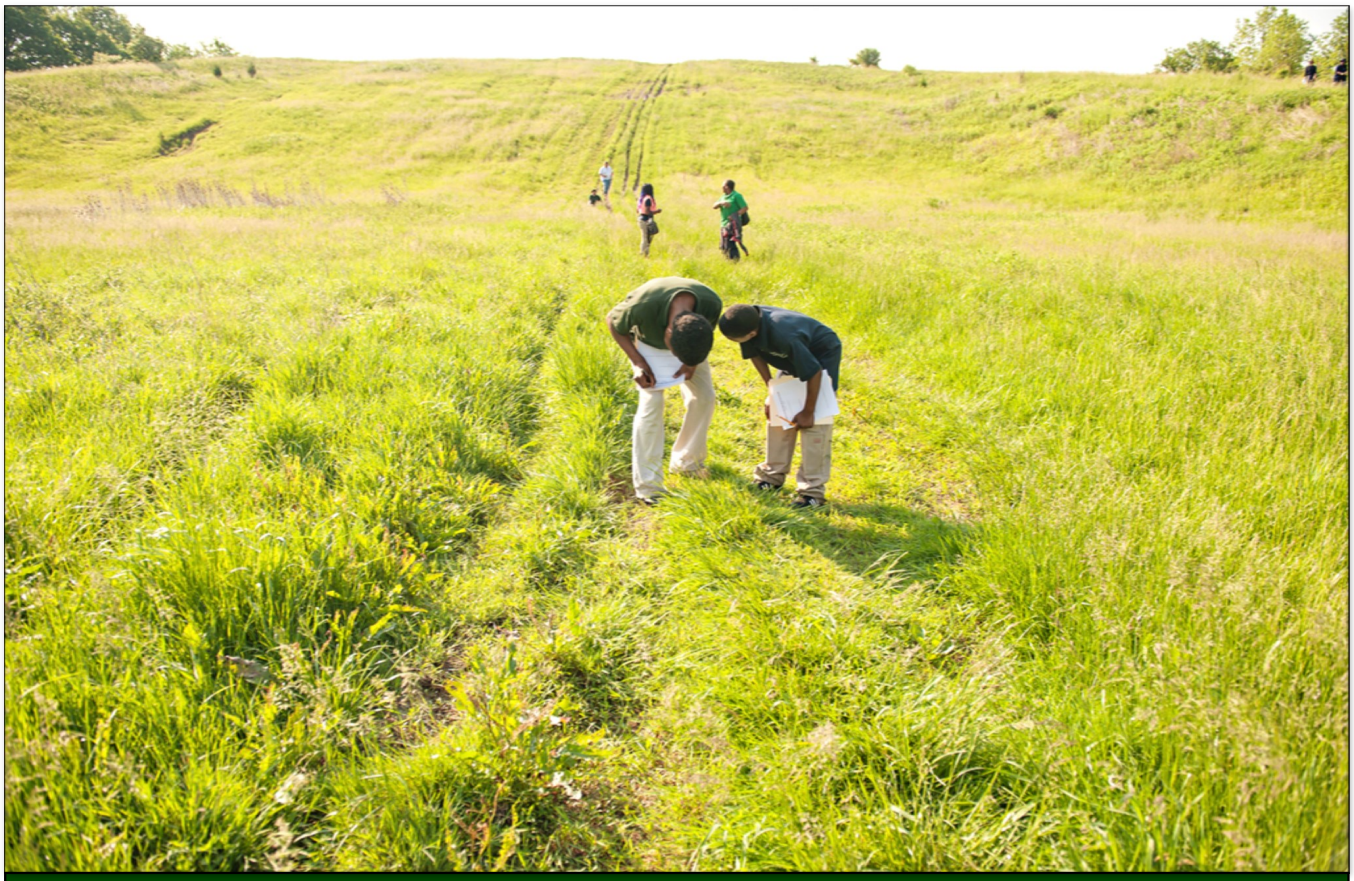
12. PROPOSED BUSINESS

13. ADJOURNMENT

Winter 2019-2020

SEMIS Coalition Newsletter

Building Community, Transforming Lives, Changing Education



INSIDE A MESSAGE FROM OUR DIRECTOR — WHO WE ARE — WHAT IS PLACE-BASED EDUCATION? — STUDENTS LEARN ABOUT CLIMATE CHANGE RESILIENCE STRATEGIES — SEMIS COALITION COMMUNITY FORUM — 2019 SEMIS LEGACY AWARD WINNER: DAVAUGHN SMITH — SCIENCE COMES ALIVE AS STUDENTS SOLVE CAMPUS FLOODING — BUILDING A LEGACY OF VISIONARY EDUCATION — SEMIS TEAM SPECIAL THANKS

WWW.SEMISCOALITION.ORG

A MESSAGE FROM OUR DIRECTOR

Dear SEMIS Community,

We have so much to celebrate as this new year begins! SEMIS Coalition students have been identifying, researching, and **solving community problems since 2007**. In a world where kids feel increasingly cut off from nature and from each other, we're putting community back at the center of schools, where it should be. We make education meaningful for students and teachers by involving youth in local climate resiliency work and other issues that directly impact their schools and neighborhoods. SEMIS is making schools community centers, where youth and teachers emerge as community leaders.

In 12 years, we've grown from a small network into a thriving coalition with teachers from over 30 schools and 35 partner organizations. We've worked with **more than 12,000** students! As we grow, our need for support grows. We're grateful to everyone who contributed during 2019. Thank you for your time, donations, and help spreading the stories of our students and teachers.

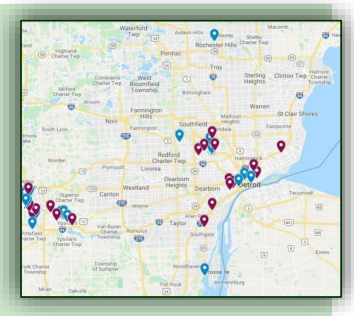
In 2020, we're launching a monthly donor campaign so our supporters can continue to help us grow. **Together, we will create a sustainable future for the SEMIS Coalition.**

Warm regards and have a happy, healthy 2020!

Sincerely,

Ethan Lowenstein, Ph.D.
Professor of Curriculum and Instruction, EMU
Director, Southeast Michigan Stewardship Coalition

"SEMIS helps me with resources and ideas to help students learn about and act to improve the world from a holistic, living systems point of view."
~Drake Meadow, high school biology teacher, Early College Alliance



The SEMIS Coalition currently serves Wayne, Washtenaw, Oakland, and Macomb counties.

THE SOUTHEAST MICHIGAN STEWARDSHIP COALITION

One of seven hubs of the Great Lakes Stewardship Initiative (GLSI), SEMIS Coalition is an education-centered community. We are made up of K-12 teachers and students, community partners, school districts, and university teacher education programs.

Over the past 12 years, SEMIS has helped teachers at more than 30 area schools get their students outside to connect and care for the world that we share. Our approach, place-based education, helps students identify problems in their backyards, research and investigate solutions, and take action. Current members of the coalition, representing 18 schools and more than 35 community partner organizations in the Metro Detroit area, are helping young people become citizen-stewards of their local communities and the Great Lakes region.

Our professional learning model provides opportunities for teachers, community partners and administrators in a variety of categories. Members participate in our annual seven day place-based education (PBE) professional development series and also attend theme-based workshops throughout the school year. We provide coaching and mentoring, support to build partnerships with community organizations and members, whole school professional development, place-based curriculum co-development, and financial support for field and school based PBE projects through our annual professional learning sequence.

SEMIS teachers and partners conducting water quality assessments during our 2019 Summer Institute at the DNR Outdoor Adventure Center in Detroit.

WHAT IS PLACE-BASED EDUCATION?

Place-based education (PBE) might look like fourth graders releasing fish into a stream to restore balance to an ecosystem. It might look like high school STEM students weather-stripping windows in their neighborhood to lower costs and conserve energy, while at the same time learning about mechanical and alternative forms of energy. It can look like a simple community service project, but it's a lot more.

Place-based education integrates student learning into the community, solving real problems while aligning projects with standards across the curriculum. Student inquiry, school-community partnerships, and youth civic engagement are the foundations of this work.

Kids care about where they live, and our PBE model breaks down the barriers between classroom and community. Together we are investing in a bold approach to education that:

- **models democratic values and gets youth involved in civic conversation**
- **teaches core environmental concepts by investigating and solving real-world problems**
- **offers meaningful, hands-on experiences that transform the community into a classroom**
- **provides extended opportunities for learning over the course of an entire school year and often longer**

The Evaluation of the Environmental Service-Learning Project, Center for Youth and Communities, 2015 tells us that...

90%

of students who worked on a PBE project are "more aware of environmental issues in their community."

87%

of educators agree or agreed strongly that the (PBE) project "increased my students' understanding of environmental issues."

82%

of students surveyed who worked on a (PBE) project are "more interested in protecting the Great Lakes from pollution."

Learn more about the benefits of PBE by visiting the Great Lakes Stewardship Initiative at: https://greatlakesstewardship.org/the-power-of-place-based-education/

Powerful PBE has deeply impacted my students by..."giving them a real voice to change policy and practice within their communities, school or otherwise."
~Amy Lazarowicz, K-5 Teacher, Neinas Dual Language Learning Academy

STUDENTS LEARN ABOUT CLIMATE CHANGE RESILIENCE STRATEGIES

Students from Communications, Media, and Arts High School in Detroit present their community assessments at the 2019 SEMIS Community Forum.

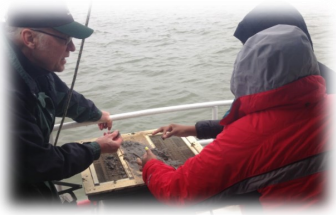
Flash flooding, rising temperatures and severe storms are increasing in the Great Lakes. No one has a bigger stake in the future of our planet than our youth. At SEMIS Coalition, we are building transformative partnerships to help young people explore their communities and meet this challenge.

SEMIS, in partnership with Ecoworks, Michigan Sea Grant and Great Lakes Integrated Sciences + Assessments (GLISA), was awarded a three-year National Oceanic and Atmospheric Agency (NOAA) Environmental Literacy grant in 2018 to help students and teachers strengthen their communities against the effects of climate change.

Climate Change Resilience from the Youth Up is an initiative that involves high school students from 12 classrooms in Detroit and Ypsilanti. This project focuses on providing comprehensive support to teachers and students to study climate change, develop stewardship projects that create more resilient communities, and collaborate with STEM experts and city and county agencies.

The project team works with existing high school classes through the formation of "Green Teams." These teams are supported and facilitated by EcoWorks Youth Energy Squad, which cultivates the next generation of green leaders by engaging youth from diverse backgrounds in hands-on service learning projects that make their homes, schools and communities more sustainable. Teachers receive year-round professional development in climate science and place-based learning methods from SEMIS.

SEMIS is proud to take on these real-world problems and help STEM educators connect their academic goals with relevant, hands-on learning.

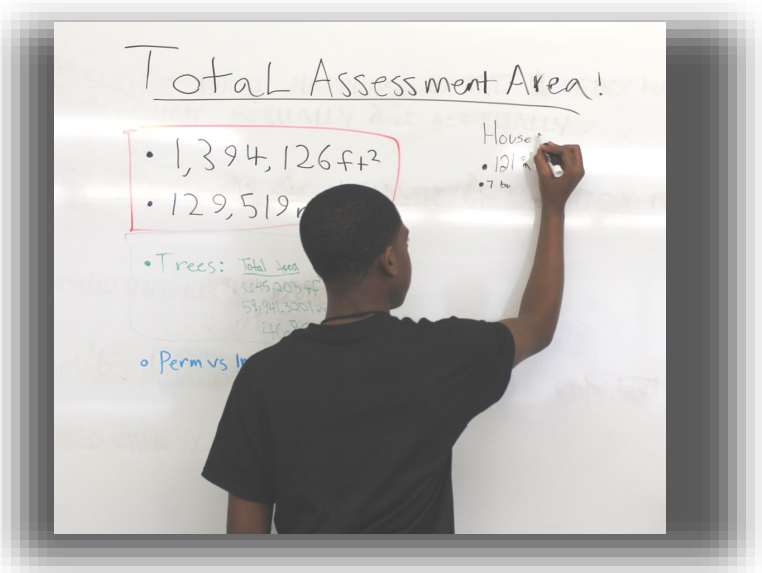


Cass Tech students aboard the GLEP Sea Vessel learn about the aquatic food web, the water cycle, the roles of oxygen and carbon dioxide, and the effects of invasive species.

"Place-based education is education rooted in place in which student inquiry about the world they notice around them drives learning. PBE also helps students take on leadership roles in taking responsibility for their community, their place, and their learning in service to their place."

~Jacinda Bowman, middle school science & social studies teacher, The James and Grace Lee Boggs School

Learn more about the Youth Energy Squad by visiting: https://www.youthenergysquad.org/



THE SEMIS COALITION COMMUNITY FORUM

The Community Forum is the SEMIS Coalition vision in action and a place to elevate the voices of our youth. It is a celebration of the place-based learning and community actions that students, teachers and partner educators have engaged in during the school year. Our first forum was in 2011, with three students and 42 educators, friends and families. Our 2019 event had 160 students; it featured more than 30 youth-led presentations and was attended by more than 150 people from the community, including district superintendents, scientists and families.

Save the date for our 2020 Forum, and please join us on Monday, May 18th!

Student-led workshops and presentations, intergenerational conversations, a banquet and our annual Coalition Awards fill this day with excitement. The event is hosted at the Eastern Michigan University Student Center each year. There you will find old friends gathering, new friendships forming and youth sharing their stories of what it means to belong to a community where their voices matter.

2019 Highlight: Students from the James and Grace Lee Boggs School worked together with Youth Energy Squad coordinators and Breathe Free Detroit to learn more about the incinerator in their Detroit neighborhood and understand its effect on their community. Students were challenged by Breathe Free Detroit to collect data about air quality over time in the area and to share what they learned. During this presentation, students shared data they gathered from indoor and outdoor air quality sensors at the school.

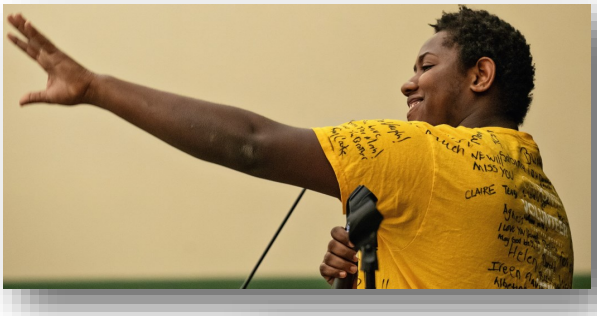
"What inspired me is that there [are] a lot of people that want to make the environment better and healthier." *~ Student comment, 2019 Community Forum evaluation*

2019 SEMIS LEGACY AWARD WINNER: DAVAUGHN SMITH

The SEMIS Legacy Award is given to individuals who have had a deep impact on the SEMIS community and are retiring, graduating high school or moving on to new adventures.

We were proud to present DaVaughn Smith with this award during the 2019 Community Forum. As a member of the Cody-DIT High School Green Team, DaVaughn has been part of SEMIS since his freshman year. We've been lucky to watch him grow into an environmental steward and leader in his community. He is now in his first year at Henry Ford Community College and continues his social justice work through our longtime partner Ecoworks Youth Energy Squad.

We look forward to working more with DaVaughn and are grateful for his role in SEMIS.



"What I love about SEMIS is that it really connects the students to science. It makes them understand that science is not worksheets and textbooks. It's real life work that affects them."

~Paula Sizemore

Learn more at https://www.itreetools.org/

SCIENCE COMES ALIVE AS STUDENTS HELP SOLVE CAMPUS FLOODING

Paula Sizemore's ninth graders at Ypsilanti Community High School (YCHS) watch their sports field flood every year. This is an environmental issue on campus—it affects their athletic practices and can impact students' future goals. Realizing this Paula, a SEMIS Coalition biology teacher who heads the science department at in YCHS's Arts, Technology, and Communications program, partnered with students from business technology classes taught by 10th grade lead teacher Andre Parker, the STEM and nature based training program We Are The Forest, and with SEMIS partner Erin Gallay, a researcher with the University of Wisconsin-Madison.

With funding from the National Science Foundation, which supports partnerships between teachers, students, and community educators, the YCHS teachers, along with Erin and the We Are The Forest educators, created lesson plans matched to the Michigan High School Science Standards and the Integrated Technology Competencies for Students. Together, they decided how to include We Are The Forest's STEM and nature training programs into their lessons.

Paula and Andre's students learned about ecosystems and the impact that human activities have on their living (biotic) and nonliving (abiotic) parts. In their business technology classes, students learned how engineering decisions have long-term impacts on the environment that can unintentionally disrupt the ecosystem and lead to problems like spring flooding on the sports field.

Then, with We Are The Forest, they began mapping trees on the school campus. They took measurements and used the online application, iTree software suite from the USDA Forest Service that provides urban and rural forestry analysis and benefits assessment tools, to calculate the economic contribution that individual trees provided to the environment through photosynthesis, shade, (heating/cooling) and removing carbon dioxide from the atmosphere. They also created budget projections indicating current and possible future energy savings provided by trees for the project using Excel spreadsheets.

Once the materials were purchased, students got outside to work on replacing a section of the sidewalk near the school parking lot with permeable pavement, which allows rain to drain into the ground and prevents flooding. Students learned to use sledgehammers, wheelbarrows and shovels to remove the sidewalk pads. They also found out firsthand about the impact of weather delays on construction projects.

Paula worked closely with YCHS earth science teacher Ryan Cook, and his 10th and 11th grade students, to reduce flooding in other parts of the school. Community partner Catie Wytychak from the Washtenaw County Water Commissioner's Office helped them design and install rain gardens in strategic places on campus.

Approximately 200 9th, 10th, and 11th graders helped work on the erosion and flooding problems using green technology and design. They presented their research findings at YCHS alongside local engineers, professors and environmental experts and at the annual SEMIS Community Forum.

This project is one example of how the SEMIS approach, place-based education (PBE), connects social justice with science and local community. Paula likes how it teaches kids to read the landscape and ask why things are happening in their community. What she loves best about PBE is that it gets her students excited about science: "The kids are interested, and they generate new ideas."

Paula says that what she values most about SEMIS is the depth of teamwork and collaboration. Year-round professional development workshops allow teachers to develop relationships and learn from one another.

To learn more about We Are The Forest programs you can visit: https://wearetheforest.org/

BUILDING A LEGACY OF VISIONARY EDUCATION

The SEMIS Coalition wants to thank the Great Lakes Stewardship Initiative and the Great Lakes Fishery Trust (GLFT) for more than 10 years of generous support! GLFT funding allowed SEMIS to stabilize and grow. We have now reached a new chapter in our fundraising. To keep up with demand for our services in high-need areas across the region, we are relying on our community to invest in our work.

The teachers who receive SEMIS comprehensive training reconnect with their purpose and with the communities beyond the school walls. SEMIS provides guidance and resources, and much more than that—we are their cheerleaders and a much-needed support system in these challenging times. As teachers grow in their careers, our network expands, as does the impact of our work.

Places-based education offers a curriculum that prepares students to thrive in a complex and rapidly changing world. It's something that we need now more than ever. We see every day how shifts in our environment hit home—from flooding in our backyards to the struggles of our communities, as public schools are being left behind. Students under stress and excessive screen time may feel disconnected from their neighbors and from nature. They may not understand their role in their community—and in protecting it. **At this critical moment in our history, we need to "do" school differently — and to put community at the center of education.**

Join our movement to transform what it means to teach and learn in Southeast Michigan by making your first monthly donation today by visiting https://semiscoalition.org/.

Our Impact

14,793
ENGAGED STUDENTS

39
COMMUNITY PARTNERS

45
TEACHERS FROM REGIONAL SCHOOLS

"The support that the SEMIS coalition provides is phenomenal. It is extremely important for teachers to have access to resources and partnerships that will provide opportunities for place based education to occur. They assist teachers in providing opportunities for students to engage with and impact their community in a positive way. "

~Tracy Ortiz, middle school science teacher, Clippert Multicultural Magnet Honors Academy

Together, with your support we can connect schools and communities.

Sustained giving enables us to…

· Provide year-long place-based education support for a Southeast Michigan teacher.

· Sponsor a place-based inquiry for an entire class to address a need in their school and the surrounding community. These include activities that improve climate change resilience, address flooding issues in their schools and neighborhoods, and create community gardens, rain gardens, and outdoor classrooms.

· Send multiple classes of students on immersive field experiences to identify patterns and needs in their watersheds, communities, and the broader Great Lakes region.

· Support a student team to attend and/or present at the SEMIS Community Forum

THE SEMIS TEAM—A SPECIAL THANKS!

Over the years, the SEMIS Coalition has been fortunate to have a strong, dedicated team of professionals helping to structure and support our work. When we use the phrase "teamwork makes the dream work," we are using it in all seriousness and appreciation of the team we have.

As an organization, we value one another for our strengths. We appreciate the dynamic forces at play when we can come together with diverse skill sets and share in the creative work of stewarding this Coalition. Each member of our staff and support team play an important role in our daily work as well as our long-term vision and mission. We'd like to highlight those contributions and give thanks for this dedication and effort.

Miriam Furlan Brighente, Doctoral Fellowship Graduate Assistant

Nigora Erkaeva, Administrative & Program Associate

Sarah Halson, Earth Force & Outdoor Classroom Learning Field Coach

Yma Johnson, Grant Writer & Development Support

Laura Florence, Great Lakes & Environmental Literacy/STEM Coach & Climate Change Resilience Initiative Project Coordinator

Ethan Lowenstein, Director

Amanda Maher, Social Studies Curriculum Design

Rebecca Nielsen, Ed. Specialist & Program Advisor

Matthew Siegfried, Resident Historian

Lisa Voelker, Assistant Director & Curriculum Coach

Linette Lao, Invisible Engines Design

Leisa Thompson, Photography

You can learn more about us by visiting: https://semiscoalition.org/our-team/

Support from Eastern Michigan University is foundational to our sustainability. Thank you to the following people who continue to help SEMIS grow and succeed:

Arthetus Abraham, Institute for the Study of Children, Families, and Communities

Jessica 'Decky' Alexander, Professor and Director of Academic Programs, Engage @ EMU

Wendy Burke, Professor/Department Head Department of Teacher Education

Meg Castro, Asst. Director of Event Planning/Conferences

Caryn Charter, Susan Campbell, Jennifer Glass & Brian Monahan, Office of Research and Development

Lisa Comben, Corporate and Foundation Relations

Claresta Davis, Grants Accounting

Iman Grewal, Director of the Office of Place-Based Education, EMU College of Education

Sheri Hillman, Administrative Secretary, Teacher Education

Christa Reid, Director of Development, College of Education

Micheal Sayler, Dean of the College of Education

The Southeast Michigan Stewardship Coalition *supports teachers as they bridge classroom learning to the community, so that, in partnership with others, students can solve real-world problems and create positive change. We do this through place-based education—an immersive approach to learning that empowers students to act as environmental stewards, caring for themselves, their peers, and the land and community where they live.*

Municipal Plans & Action Agendas

PLACE-BASED STEWARDSHIP EDUCATION

NAAEE Conference Presentation

October 2021

southeast michigan stewardship coalition
growing visionary educational communities

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Funded by NOAA Environmental Literacy Program

southeast michigan
stewardship coalition
growing visionary educational communities

Website

https://semiscoalition.org/

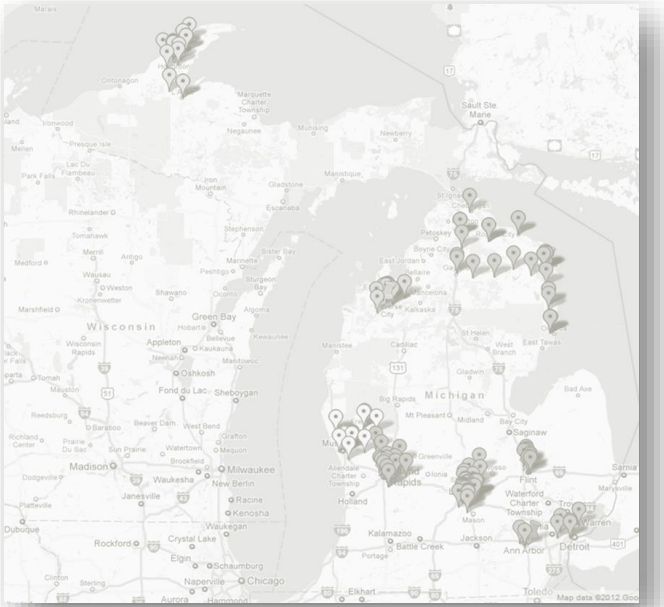
Our Team

https://semiscoalition.org/our-team/

Place-Based Education in Michigan

The Great Lakes Stewardship Initiative (**GLSI**) is one of largest efforts in North America to establish and support place-based stewardship education (PBSE) in K–12 schools and communities.

- It was launched in 2007 by the Great Lakes Fishery Trust, which committed more than $10 million over ten years (2007–2017) to support the GLSI's work.
- SEMIS Coalition is a proud "hub" of the GLSI, one of 7.



GREAT LAKES
STEWARDSHIP INITIATIVE

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Our Model: Comprehensive Wrap-Around Support

Annual Learning Series

In between each meeting:

- On-site/virtual curriculum coaching
- Community partnership cultivation & stewardship
- Partner-led workshops
- Whole staff workshops
- School team circle of support
- Dinner & Dialogues
- School-to-school collaborations
- Teacher-to-teacher mentorship

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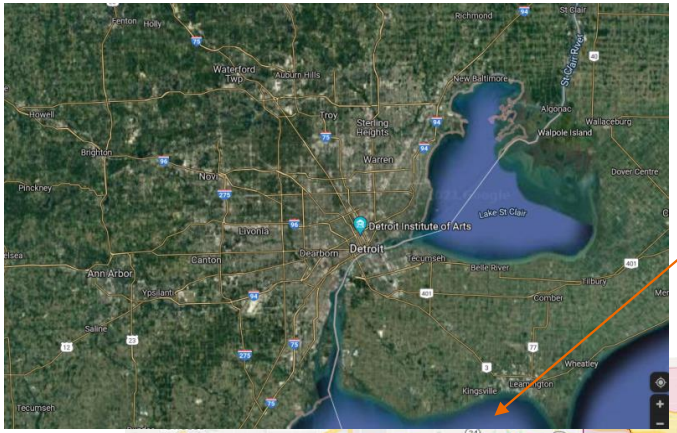
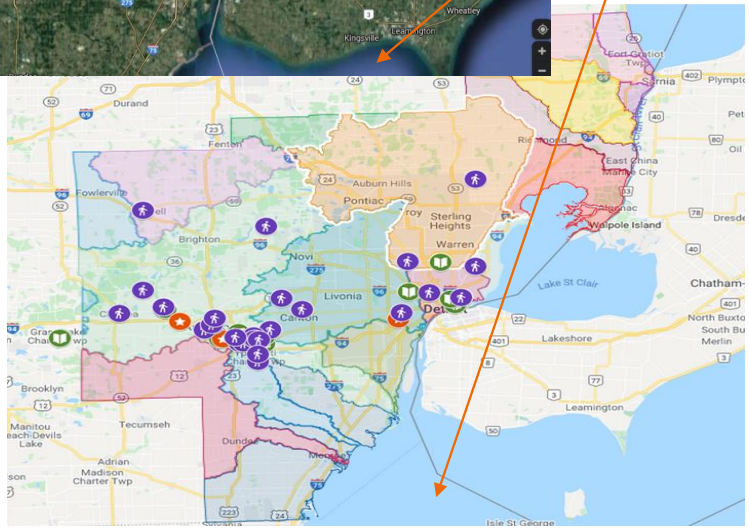
Southeast Michigan



Lake Erie

HOME!



Thank you!

Our work is made possible by the generous support of these funders, and our amazing individual donors.

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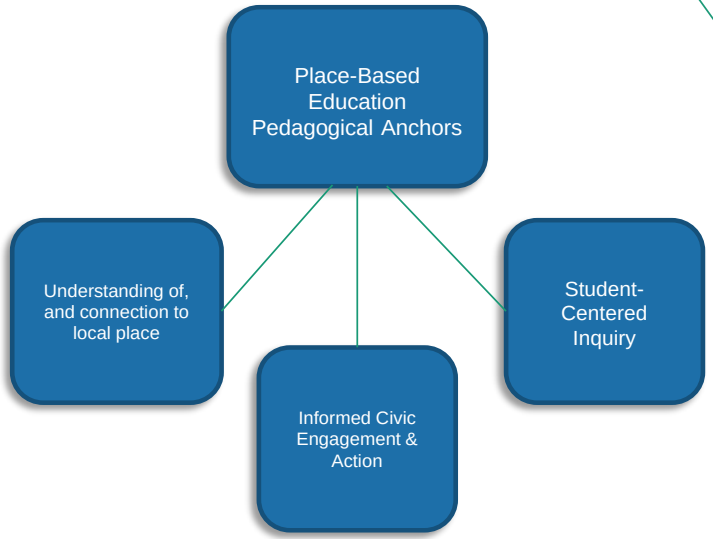
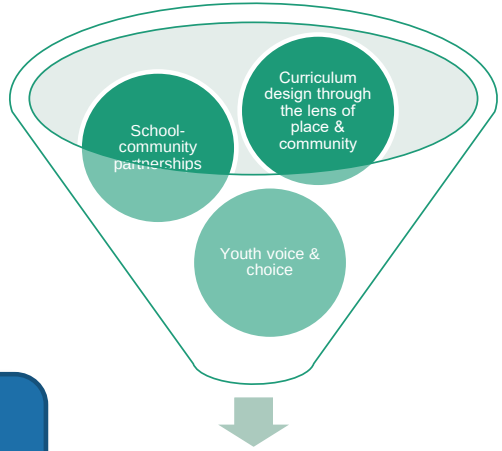
PBE Anchors



Lowenstein et. al, 2018



Components

southeast michigan stewardship coalition
growing visionary educational communities

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Place-Based Education

Why Municipal Plans & Action Agendas in Place-Based Education?

Interdisciplinary & thematic

Compiled data, charts, maps and other information

Makes collaboration visible

Shows how research and data connect to decision making, policy & practice (actions)

Can help connect academic curriculum to youth-directed action projects

The big one: Many teachers and students in Southeast Michigan are doing quality environmental education, environmental justice work, and climate change resilience work through their place-learning curriculum. Youth and their teachers need to be aware of the existing landscape when it comes to the goals and strategies that already exist in municipalities.

Likewise, it is hard to understate how important it is for officials who have municipal roles and responsibilities to be aware, understand, and support these efforts in schools. Schools need to be bridges within and among communities. This is one amazing way youth can help to lead us; it only make sense that we support students to play this role.

For this presentation

We will focus on the...

Detroit Sustainability Action Agenda
&
City of Ypsilanti Sustainability Plan

Municipal Plans & Action Agendas that focus on environmental sustainability, justice, and climate change preparedness and resilience.

Building literacy.

It is our responsibility to support youth to be able to keep up with current events, communicate effectively, and understand the issues that are shaping our world.

This includes historical literacy. Each of these documents has evolved from past efforts; they each have their own story, so to speak.

Without becoming literate in a topic students will struggle to participate in issues that impact their daily lives.

Municipality: mu·nic·i·pal·i·ty

/myoō ˌnisəˈpalədē/
Learn to pronounce
noun
noun: **municipality**; plural noun: **municipalities**

1. a city or town that has corporate status and local government.
   "voters in each municipality choose between four candidates"
2. the governing body of a municipality.
   "locally elected municipalities"

Master Plans…

A Master Plan is a document and policy guide designed to help communities create a vision of what they want to look like in the future. These documents help guide communities in their decisions on land use development and preservation.

Master Plans are written and adopted by a local Planning Commission and might also be adopted by a local legislative body, although Master Plans are not laws on their own.

MICHIGAN PLANNING ENABLING ACT

Act 33 of 2008 AN ACT to codify the laws regarding and to provide for county, township, city, and village planning; to provide for the creation, organization, powers, and duties of local planning commissions; to provide for the powers and duties of certain state and local governmental officers and agencies; to provide for the regulation and subdivision of land; and to repeal acts and parts of acts.

Links to the referenced plan & agenda

Detroit

Sustainability Action Agenda Summary

Sustainability Action Agenda Framework

Full Action Agenda (55 pages)

Sustainability Action Agenda main city government page

Ypsilanti

Sustainability Plan Draft can be found here. It was drafted for community and council review in October 2020.

You can find the 2012 Climate Action Plan here. You can find the Appendix with a list of related strategies here.

Where am I: Home > General Services Department > Office of Sustainability

SUSTAINABILITY ACTION AGENDA

CONTACTS

General Services Department
(313) 628-0900

Office of Sustainability
sustainability@detroitmi.gov

The Detroit Sustainability Action Agenda was released in Summer 2019 as the result of a year-long process involving community engagement, interdepartmental collaboration, and research. As the first sustainability plan for the City, it outlines a strategic roadmap to create a more sustainable city where all Detroiters thrive and prosper in an equitable, green city; have access to affordable, quality homes; live in clean, connected neighborhoods; and work together to steward resources.

Sustainability Press Conference
108 views • Jul 3, 2019
2 0 SHARE SAVE

CITY OF YPSILANTI

- Farmer's Markets
- Solar Ypsi!
- Weatherization and Energy Efficiency Programs
- Sustainability Commission
- Sustainability Plan

Home › Residents › Sustainability & Weatherization Resources › Sustainability Plan

Sustainability Plan

The Sustainability Commission was charged at their inception in 2017 with the creation of a Sustainability Plan. This Plan, once adopted, will help the Commission, City Council, and staff identify and prioritize efforts that enhance the sustainability of the City.

A draft was authorized for public release on October 5, 2020. Feedback on this draft may be directed to Project Manager Bonnie Wessler an Sustainability Commission Chair Keith Michalowski. Feedback will be incorporated into the plan, and relayed to the Commission at their regular November meeting.

Draft Sustainability Plan (Oct 5 2020)

The City of Ypsilanti Sustainability Plan

October 2020

"It's real. It's us. It's bad. Scientists agree. There's hope."
Anthony Leiserowitz, Director Yale Project on Climate Change Communication

Ypsilanti, in many ways, is a state leader in sustainability planning, yet these efforts had not unified into a Sustainability Plan until now. Inventories and strategies could be found in the City's Climate Action Plan, Energy Plan, Nonmotorized Plan, Parks and Recreation Plan, or Alternative Fuel Policy. While these plans hold tremendous value, the recommendations within them carry more weight and are more accessible when included in the City's primary policy document. The Master Plan is a community's most comprehensive planning document and serves as the policy basis for the Zoning Ordinance, which directly regulates land use. Zoning provisions have the legal force to protect natural resources, prioritize sustainable development, and improve the infrastructure that enables nonmotorized travel. The previous efforts were influential and integral to the City's "green" practices, and this next step officially denotes sustainability as an actionable City priority through the compilation and advancement of sustainable strategies into a single cohesive document. This Sustainability Plan is intended to serve as a data resource, community reflection, and policy guide to the Commission's future actions.

The Impetus

The Sustainability Commission was established in 2017 with a primary mission of addressing environmental issues and prioritizing sustainability policies. In this short time, the Commission has embarked upon and accomplished numerous initiatives, including:

- Passing a resolution in support of native plants in local landscaping
- Partnering with the Washtenaw County Conservation District to provide support for grants to plant trees, hold workshops, and train for tree maintenance
- Reviewing and recommending the 2018 Energy Plan
- Partnering with the city of Ann Arbor on the Net Zero Initiative
- Passing an Energy Star Resolution to identify underperforming buildings and apply for certification
- Founding an annual Earth Day celebration

The Sustainability Commission recognizes that risk analysts, including the US Department of Defense, rank climate change as one of the most serious threats to ecosystems and people around the world.[1,2,3] "Climate change" refers to a broad range of global phenomena resulting predominantly from the large-scale burning of fossil fuels, which add heat-trapping gases to Earth's atmosphere. The result is a variety of challenges: extreme heat and increased cooling days, more severe winter storms, changing coastal dynamics, rising water levels, disruptions to growing seasons, pest migrations, habitat loss, temperature volatility, increasing extreme weather events and associated stress on natural ecosystems, and risk of drought that will disturb of the characteristics and functions of natural processes.[4]

There are generally two types of responses to climate change: mitigation and adaptation. Mitigation, or *reducing the risk of future changes* to the climate, necessitates dramatically reducing future GHG emissions and increasing the sequestration or storage of existing GHG in natural sinks such as forests or soil. While mitigation strategies will take decades to positively impact rising temperatures, reducing GHG emissions now will reduce future risk and make it easier to adapt to the future impacts of climate change. An example of a mitigation strategy would be increasing the deployment and utilization of renewable energy. Adaptation refers to actions that address the *effect* of the problem, but not the *root* of the problem. Adapting to climate change necessitates changing behaviors, systems, and our way of *life in response* to the results of climate change. One example would be relocating electricity and communication lines from overhead to underground locations to prevent power outages during extreme weather.

Where the two categories overlap is where resliency is born – if an action can simultaneously mitigate negative effects of climate change and help a community adapt, then it rises to priority status. Because the tangible positive effects of mitigation will take the entire world's coordination, not just the region's or the City's, a focus on adaptation is the most prudent and impactful.

Regional Climate Change

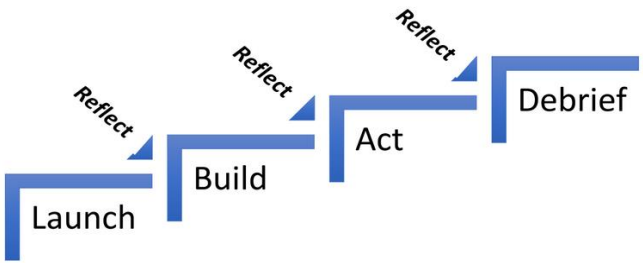
The Great Lakes Integrated Sciences and Assessments (GLISA) Center is one of the eleven regional centers funded by the National Oceanic Atmospheric Administration. It is a partnership between the University of Michigan and Michigan State University that seeks to provide usable and useful information on climate change impacts to decision makers across the Great Lakes Region. GLISA provides both *historic information*, derived from over 200 quality-controlled weather stations located in communities across the region, and *future climate information*, derived from regional and global climate models (RCMs and GCMs), as well as dynamically downscaled climate models. Historic climate information is useful for providing locally relevant information that communities can use to assess how well their physical infrastructure and social systems are faring in the face of current climate change, whereas future climate information is useful for incorporating into capital improvement processes when decisions will affect infrastructure investments over 10, 20, or 50 years.

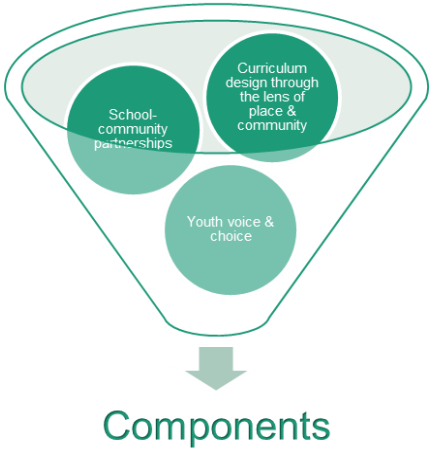
Some positive news is that this scientific awareness is reaching a critical mass of Americans (and Ypsilanti residents). Most Americans believe global warming is happening (71%) and that it will harm future generations (73%).[5] Public opinion estimates generated by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication suggest that 78% of Washtenaw County residents believe climate change is happening, 76% believe climate change will harm future generations, and 83% support policies that bolster renewable energy or limit CO_2 emissions.[6]

DRAFT

The City of Ypsilanti worked with MSA and the WARM Training Center to develop a climate action plan in July 2012.

Sequencing Place-Based Education

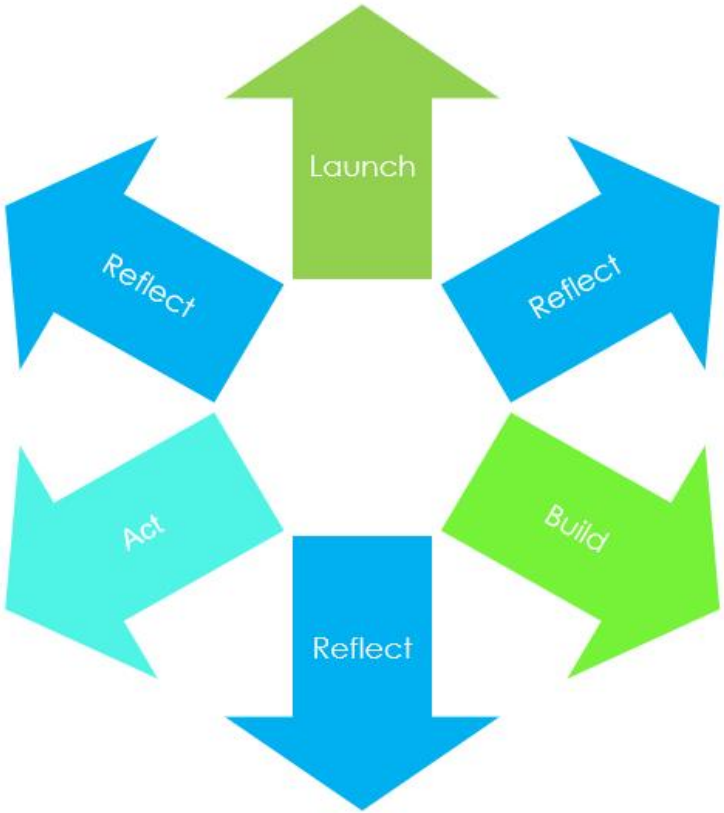




SCHOOL

~~LIFE~~

SCHOOL



Sequencing Place-Based Education

Why Municipal Plans & Action Agendas in Place-Based Education?

Interdisciplinary & thematic

Compiled data, charts, maps and other information

Make collaboration visible

Show how research and data connect to decision making, policy & practice (actions)

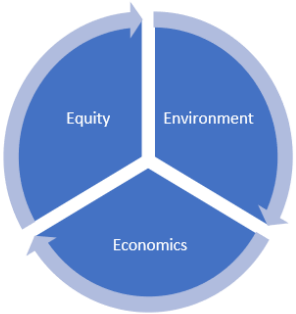
Can help connect academic curriculum to youth-directed action projects

Interdisciplinary & thematic

Three Pillars of Sustainability

Equity: The degree to which all citizens of Ypsilanti benefit from the outcomes of this plan.

Examples: eliminate disparities among traditionally disadvantaged groups, increased participation in utility rebate programs or diverse attendance at educational community events.



Environment: The degree to which these actions restore natural systems and human health and positively impact energy use and climate trends.

Examples: habitat restoration, carbon sequestration, and a reduction in miles traveled by vehicle.

Economics: The degree to which this plan can positively impact community wealth and uplift the well-being of the working class.

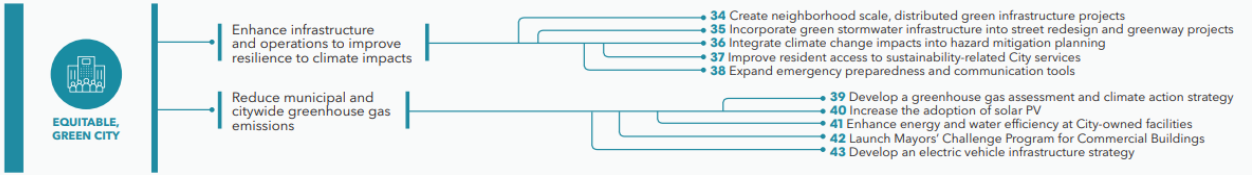
Examples: investments in clean energy technologies and green jobs, support for a local food system, green job training, and employment and workforce wages.

- BUILDINGS
- INFRASTRUCTURE
- LAND USE & TRANSPORTATION
- CULTURE CHANGE

Interdisciplinary & thematic

Environmental Justice

In any crisis, the most vulnerable populations will bear a disproportionate level of the burden unless protective action is taken. Their lack of resources and influence means that they will suffer greater exposure to climate change threats, and be less able to adapt and react. Environmental justice (EJ) is a discipline pioneered by Dr. Robert Bullard for his investigation into the unequal protection and enforcement of environmental laws and regulations. Bullard was a part of the National Environmental Justice Advisory Council that advised President Bill Clinton to sign the Environmental Justice Executive Order in 1994 where EJ is defined as: "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with the respect to the development, implementation, and enforcements of environmental laws, regulations, and policies."



Rain Barrel Math
Roof catchment area = total square footage of your house plus the extension of the eaves
Ex. 40 ft x 50 ft = 2,000
1 inch of rain provides 600 gallons of water per 1,000 square foot of catchment area
Ex. 600 gallons x 2 = 1,200 gallons
The rain barrel system is only 80% effective at capturing the water
.80 x 1,200 gallons = 960 gallons
A rain barrel has the capacity to capture 960 gallons during a one-inch storm

Source: Ecology Action Center. https://ecologyactioncenter.org/clean-water/rain-barrels/

community were incorporated into goal development. The challenges, goals, objectives, and strategies to reach those goals are presented below, loosely grouped into these categories: ***earth***, including soil and contamination; ***water***, including surface water, drinking water, and stormwater; ***energy***, including production, consumption, and waste management; ***biodiversity***, including urban forestry and outdoor lighting; ***neighborhoods***, including land use and transportation; and ***communication***.

Locally compiled data, charts, maps and other information

Precipitation Change 1950 – 2019 Southeast Michigan Climate Division

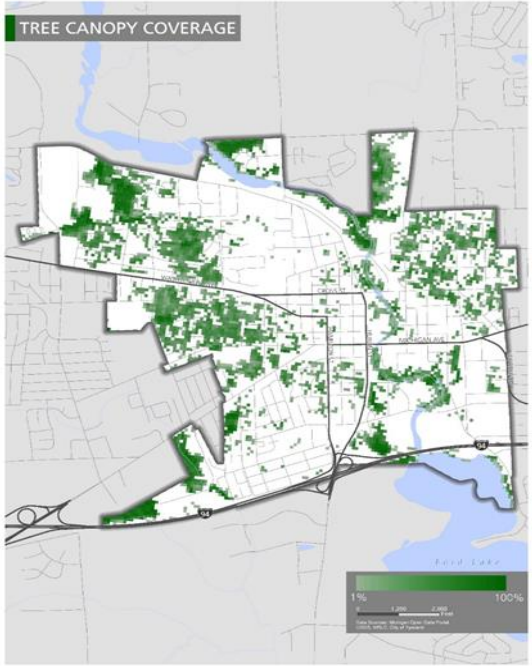
	in	cm	%
Annual	*5.58*	*14.17*	*18.5*
Winter	0.61	1.561	11.2
Spring	1.72	4.39	21.1
Summer	1.13	2.88	12.0
Fall	1.99	5.07	28.4
Source: GLISA			

Over the same period, the average annual temperature has risen across Southeast Michigan by 2.4 degrees Fahrenheit (°F), and the gap between average high and low temperatures is closing and swinging upward towards warmer temperatures. Winter and spring are considerably warmer, with rising winter lows and earlier last frost dates leaving fewer days under 32°F in the spring season.

Rise in Temperature from 1950 through 2019

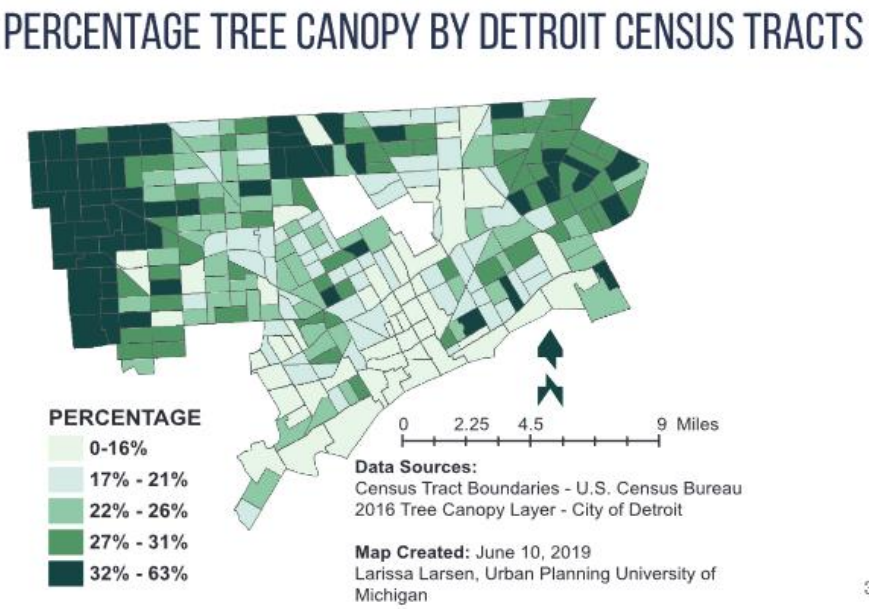
Season	°F	°C
Annual	*2.43*	*1.35*
Winter	2.80	1.55
Spring	2.86	1.59
Summer	1.91	1.06
Fall	1.94	1.08
Source: GLISA		

Page 2, Ypsilanti Sustainability Plan



Page 22, Ypsilanti Sustainability Plan

Locally compiled data, charts, maps and other information



Page 31, Detroit Sustainability Action Agenda full plan

Page 36, Detroit Sustainability Action Agenda full plan

Make collaboration visible

DEVELOPING THE AGENDA

Over the past 12 months, we heard from over 6,800 Detroiters to understand their vision for a more equitable, prosperous, and environmentally sustainable city. We hired 14 **Sustainability Ambassadors** to talk face-to-face with their neighbors and attend community events.

We created a **Sustainability Advisory Commission** to guide the development and implementation of the Agenda. We convened an **Interdepartmental Working Group** of 29 City departments, which met monhtly to help shape the Agenda and will continue to meet as part of our implementation.

Engagement

Community input was central to the creation of the Agenda. We focused on engaging a diverse array of Detroiters in every neighborhood across the city – with a particular emphasis on communities historically underrepresented in planning processes. We reached thousands of Detroiters and heard their feedback on the challenges faced by residents and businesses, opportunities to improve quality of life, and suggestions on how to build a more sustainable city. Click here for a closer look at our engagement process.

- 6,800 Detroiters engaged
- 1,600 surveys collected in Spanish and English
- 1,200 online comments collected on coUrbanize
- 2,000 Detroiters reached by attending 100+ existing community meetings
- 860+ Detroiters met with 14 Sustainability Ambassadors
- 370 Detroiters engaged through 4 Town Halls
- 50+ Detroit-based organizations engaged through 8 Practitioner Workshops
- 7 Focus Groups targeting under-represented communities

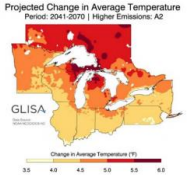
Make collaboration visible

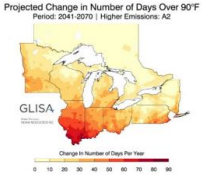
Public Input

In 2019, high priority themes from The City of Ypsilanti Energy Plan (2018), The City of Ypsilanti Climate Action Plan (2012), and the Shape Ypsilanti Master Plan (2013) were identified and coupled with a round of community input.

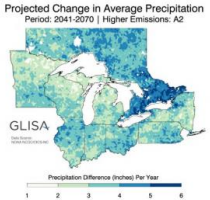
Residents were invited to attend an in-person meeting held on July 11, 2019 to participate in group exercises that prioritized sustainability actions. There was also an online survey (physical copies were provided), and in an attempt to "go to the people," boards were placed on easels at different locations throughout the City (City Hall, EMU Student Center, Parkridge Community Center, and Cream & Crumb) in the spring and summer of 2019 that allowed residents to select their environmental priorities. The findings from each engagement were compiled, analyzed, and used as a basis for outlining the City's ongoing path towards sustainability. The action plans represent public engagement findings, data collection, best practices, and staff capacity.

Community Engagement Summary of Details
Survey respondents: 144
Board entries: 876 unique responses
Attendees at in person session: 25





GLISA: Great Lakes Integrated Science Assessments



Increases in overall precipitation and acute rain events are also expected for our region during the same period. Annual rainfall is expected to increase by three to four inches over annual rainfall in 1971-2000. By 2040-2070, the region is likely to experience up to two more days per year with heavy precipitation, defined as the 2% heaviest precipitation events in the area.[6]

It is important to remember that while understanding climate change is critical to the process of planning for Ypsilanti's future, these impacts may also open new opportunities for our community and region that set us apart from other areas. A temperate climate, an extended growing season, an abundance of freshwater, and a legacy of innovation and production place southeast Michigan on the top of the list for "climate positive" regions of the world. To properly prepare ourselves and our community for the future, we must adequately address how climate impacts do and will exacerbate existing vulnerabilities in our community, but also be diligent to build a resilient future – one that that not only "bounces back," but "bounces forward."

Show how research and data connect to decision making, policy & practice (actions)

Regional Climate Change

The Great Lakes Integrated Sciences and Assessments (GLISA) Center is one of the eleven regional centers funded by the National Oceanic Atmospheric Administration. It is a partnership between the University of Michigan and Michigan State University that seeks to provide usable and useful information on climate change impacts to decision makers across the Great Lakes Region. GLISA provides both *historic information*, derived from over 200 quality-controlled weather stations located in communities across the region, and *future climate information*, derived from regional and global climate models (RCMs and GCMs), as well as dynamically downscaled climate models. Historic climate information is useful for providing locally relevant information that communities can use to assess how well their physical infrastructure and social systems are faring in the face of current climate change, whereas future climate information is useful for incorporating into capital improvement processes when decisions will affect infrastructure investments over 10, 20, or 50 years.

Historic Regional Climate Change

GLISA offers curated history climate information at two scales:

- Climate Division, which are multi-county, NOAA Designated regions,
- Quality-controlled weather stations.

Ypsilanti Sustainability Plan, page 2

Show how research and data connect to decision making, policy & practice (actions)

Goal 9: Enhance infrastructure and operations to improve resilience to climate impacts

As Detroit begins to experience more extreme precipitation events, our wastewater infrastructure can become overwhelmed. However, by focusing on expanding the amount of and targeting the location of green stormwater infrastructure throughout the city, we can help reduce the impacts of these events. Likewise, informed and prepared communities will be more resilient to climate impacts. We will make information easier to access and provide emergency training to help to prepare communities for extreme events.

- Action 34: Create neighborhood scale, distributed green infrastructure projects
- Action 35: Incorporate green stormwater infrastructure into street redesign and greenway projects
- Action 36: Integrate climate change impacts into hazard mitigation planning
- Action 37: Improve resident access to sustainability-related City services
- Action 38: Expand emergency preparedness and communication tools

Explore the Goals and Actions of the Agenda webpage, City of Detroit

Can help connect academic curriculum to action projects

Work with YCUA to develop home and business water efficiency financing programs

Conduct a waste audit to understand the baseline composition of the waste stream at the municipal operations and community level

Help publicize local re-use opportunities, such as the Buy Nothing Project and Freecycle.

Implement an educational campaign on existing recycling and composting options

Expand recycling to public spaces and all City facilities by placing artful, educational, and engaging waste sorting stations throughout the community

Plant additional street trees and trees in parks in accordance with the Urban Forest Management Plan, with a particular prioritization of those sites indicated by the Tree Equity map.

Partner with Ypsilanti Community Schools on communication and education efforts.

Consider programs for habitat improvement such as bat houses, pollinator gardens, and others as they develop

Publicize available efficiency and support programs, such as the County's weatherization program and YCUA's water assistance program.

Train inspectors to spot wildlife-friendly plants to prevent their removal

Continue to monitor health of the city's wetlands and work with the Washtenaw County Parks and Recreation to protect them

Coordinate tree planting efforts with sidewalk maintenance efforts and considerations.

Prioritize pedestrians at crosswalks, and investigate where pedestrian walk signs can be made automatic

Increase and diversify the public tree stock according to the Urban Forest Management Plan

Implement an educational series about energy efficiency in different venues with a focus on teaching the most vulnerable populations about resources that help reduce their utility bills

Sustainability Commissions shall continue to work with sustainability-related organizations to develop and offer in school guest lectures, field trips, and other learning opportunities with local schools

Work with schools to reduce waste and incorporate reusable items on campus.

Conduct an Environmental Justice analysis that identifies vulnerable populations and structures that are disproportionately impacted by climate change

Investigate infrastructure materials that can weather extreme weather

City of Ypsilanti Goals

Can help connect academic curriculum to action projects

Transform vacant lots and structures into safe, productive, sustainable spaces

Support neighborhood-based efforts to care for vacant lots and structures

Increase tree plantings in vulnerable areas

Expand green jobs training and workforce development programs

Improve access to utility efficiency programs

Renovate existing and create new parks throughout the city

Provide nutrition and environmental education at recreation centers and park

Create neighborhood scale, distributed green infrastructure projects

Incorporate green stormwater infrastructure into street redesign and greenway projects

Integrate climate change impacts into hazard mitigation planning

Improve resident access to sustainability-related City services

Expand emergency preparedness and communication tools

Launch residential composting pilot program to reduce sent to landfills

City of Detroit Goals

Curriculum development: Entry points for practicing PBE

© SEMIS Coalition / Creative Commons

Entry points

Communication and neighborhood education - a HUGE need.

Most municipalities need help getting the word out about their plans, efforts, actions people can take and initiatives.

Students and teachers are in great positions to help!

Through video, PSAs, flyers, websites and more we can align our unique projects with goals in these plans and can civically engage by playing a role as community communicators!

AND, the great thing is, communication can look diverse and relate to any topic.

Challenge Letters!

What is a challenge letter? A Challenge Letter is written by a community partner directly to learners (students & teachers). In this case, a commissioner or city council member, or possibly someone who is a city employee could construct a challenge letter based on the municipal document goals.

This letter asks students for their help with a community-relevant social-ecological problem and poses a 'challenge' to the group.

Some letters are very broad, allowing more open-ended solutions; others can be more specific. In specific letters the classroom teacher and partner work together to outline the process.

Here are a few things to consider before crafting more specific letters:

- The challenge & letter is appropriate for the age of the students; students are able to respond realistically with a type of solution that is safe and developmentally meaningful.

- Planning the letter includes classroom visits by experts from the organization.

- There is a built-in performance assessment/presentation to the organization or to a public decision-making body (e.g., city council) at the end of the project.

- Built into the challenge, students must pose questions, make choices about the issues they want to focus on, gather evidence, and take some kind of action. The action piece is especially important.

southeast michigan
stewardship coalition
growing visionary educational communities

TAKING ACTION

"It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality, tied into a single garment of destiny. Whatever affects one destiny, affects all indirectly."

– DR. MARTIN LUTHER KING JR.

Page 12 of the Climate Action Plan, Detroiters Working for Environmental Justice

Connect with us!

southeast michigan stewardship coalition
growing visionary educational communities

Website

https://semiscoalition.org/

Blog

https://semiscoalition.org/blog/

Our Team

https://semiscoalition.org/our-team/

Facebook

https://www.facebook.com/semiscoalition/

Instagram

https://www.instagram.com/semiscoalition/

Who we are and why are we here?

We are educators, visionaries, resisters of injustice, public intellectuals and advocates, people with a lot of love for this world. Our Coalition brings the art and craft of place-based education into core practices in schools, and advocates for *transformational changes* to K-12 institutions, colleges and universities, so that all living systems may thrive in sustainable, healthy and just communities.

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MINUTES

City of Ypsilanti
SUSTAINABILITY COMMISSION MEETING
Virtual Meeting held via Zoom

Monday, October 11, 2021
7:00 P.M.

I. CALL TO ORDER: 7:01 p.m.

II. ROLL CALL

Keith Michalowski	Present	- Washtenaw County, Ypsilanti City
Nancy Heine	Present	- Washtenaw County, Ypsilanti City
Bryan Foley	Present	- Washtenaw County, Ypsilanti City
Beth Gibbons	Present	- Washtenaw County, Ypsilanti City
Takunia Collins	Present	- Washtenaw County, Pittsfield Township
Desirae Simmons	Present	- Washtenaw County, Ypsilanti City
Julia Bayha	Absent	

Also Present: Council Liaison Steve Wilcoxen
Staff Liaison Ron Akers, Public Services Director
Commission Recording Secretary, Nancy Hare-Dickerson

Additional Staff Present: Bonnie Wessler, Public Services Project Manager (Zoom Meeting Host)

III. PUBLIC COMMENT

One public comment from Alex Nuttle, Ypsilanti City resident.

IV. AGENDA APPROVAL

Gibbons (Second: Foley) moved to approve the Agenda as submitted.

Roll Call Vote – Ayes: Commissioners Michalowski, Heine, Foley, Gibbons, Collins, Simmons
Nays: None
Absent: Commissioner Bayha
Motion Carried.

V. INTRODUCTIONS - none

VI. PRESENTATIONS

1. **Thanksgiving Address Greetings to a Natural World**

In recognition of Indigenous People's Day, Commissioner Simmons read, as follows…

****

Haudenosaunee Thanksgiving Address Greetings to the Natural World

The People
Today we have gathered and we see that the cycles of life continue. We have been given the duty to live in balance and harmony with each other and all living things. So now, we bring our minds together as one as we give greetings and thanks to each other as people.

Now our minds are one.

The Earth Mother
We are all thankful to our Mother, the Earth, for she gives us all that we need for life. She supports our feet as we walk about upon her. It gives us joy that she continues to care for us as she has from the beginning of time. To our mother, we send greetings and thanks.

Now our minds are one.

The Waters
We give thanks to all the waters of the world for quenching our thirst and providing us with strength. Water is life. We know its power in many forms- waterfalls and rain, mists and streams, rivers and oceans. With one mind, we send greetings and thanks to the spirit of Water.

Now our minds are one.

The Fish
We turn our minds to the all the Fish life in the water. They were instructed to cleanse and purify the water. They also give themselves to us as food. We are grateful that we can still find pure water. So, we turn now to the Fish and send our greetings and thanks.

Now our minds are one.

The Plants
Now we turn toward the vast fields of Plant life. As far as the eye can see, the Plants grow, working many wonders. They sustain many life forms. With our minds gathered together, we give thanks and look forward to seeing Plant life for many generations to come.

Now our minds are one.

The Food Plants
With one mind, we turn to honor and thank all the Food Plants we harvest from the garden. Since the beginning of time, the grains, vegetables, beans and berries have helped the people survive. Many other living things draw strength from them too. We gather all the Plant Foods together as one and send them a greeting of thanks.

Now our minds are one.

The Medicine Herbs
Now we turn to all the Medicine herbs of the world. From the beginning they were instructed to take away sickness. They are always waiting and ready to heal us. We are happy there are still among us those special few who remember how to use these plants for healing. With one mind, we send greetings and thanks to the Medicines and to the keepers of the Medicines.

Now our minds are one.

The Animals
We gather our minds together to send greetings and thanks to all the Animal life in the world. They have many things to teach us as people. We are honored by them when they give up their lives so we may use their bodies as food for our people. We see them near our homes and in the deep forests. We are glad they are still here and we hope that it will always be so.

Now our minds are one

The Trees
We now turn our thoughts to the Trees. The Earth has many families of Trees who have their own instructions and uses. Some provide us with shelter and shade, others with fruit, beauty and other useful things. Many people of the world use a Tree as a symbol of peace and strength. With one mind, we greet and thank the Tree life.

Now our minds are one.

The Birds
We put our minds together as one and thank all the Birds who move and fly about over our heads. The Creator gave them beautiful songs. Each day they remind us to enjoy and appreciate life. The Eagle was chosen to be their leader. To all the Birds-from the smallest to the largest-we send our joyful greetings and thanks.

Now our minds are one.

The Four Winds
We are all thankful to the powers we know as the Four Winds. We hear their voices in the moving air as they refresh us and purify the air we breathe. They help us to bring the change of seasons. From the four directions they come, bringing us messages and giving us strength. With one mind, we send our greetings and thanks to the Four Winds.

Now our minds are one.

The Thunderers
Now we turn to the west where our grandfathers, the Thunder Beings, live. With lightning and thundering voices, they bring with them the water that renews life. We are thankful that they keep those evil things made by Okwiseres underground. We bring our minds together as one to send greetings and thanks to our Grandfathers, the Thunderers.

Now our minds are one.

The Sun
We now send greetings and thanks to our eldest Brother, the Sun. Each day without fail he travels the sky from east to west, bringing the light of a new day. He is the source of all the fires of life. With one mind, we send greetings and thanks to our Brother, the Sun.

Now our minds are one.

Grandmother Moon
We put our minds together to give thanks to our oldest Grandmother, the Moon, who lights the night-time sky. She is the leader of woman all over the world, and she governs the movement of the ocean tides. By her changing face we measure time, and it is the Moon who watches over the arrival of children here on Earth. With one mind, we send greetings and thanks to our Grandmother, the Moon.

Now our minds are one.

The Stars
We give thanks to the Stars who are spread across the sky like jewelry. We see them in the night, helping the Moon to light the darkness and bringing dew to the gardens and growing things. When we travel at night, they guide us home. With our minds gathered together as one, we send greetings and thanks to the Stars.

Now our minds are one.

The Enlightened Teachers
We gather our minds to greet and thank the enlightened Teachers who have come to help throughout the ages. When we forget how to live in harmony, they remind us of the way we were instructed to live as people. With one mind, we send greetings and thanks to these caring teachers.

Now our minds are one.

The Creator
Now we turn our thoughts to the Creator, or Great Spirit, and send greetings and thanks for all the gifts of Creation. Everything we need to live a good life is here on this Mother Earth. For all the love that is still around us, we gather our minds together as one and send our choicest words of greetings and thanks to the Creator.

Now our minds are one.

Closing Words
We have now arrived at the place where we end our words. Of all the things we have named, it was not our intention to leave anything out. If something was forgotten, we leave it to each individual to send such greetings and thanks in their own way.

Now our minds are one.

****

2. Water Street Remediation

Joe Meyers, Economic Development Director, provided information regarding the background history and remediation issues under consideration regarding the Water Street Development project. Query, comment and discussion followed.

3. Southeast Michigan Stewardship Coalition

In the absence of the scheduled presenter, Lisa Voelker, Commission Gibbons briefly summarized Ms. Voelker's role in the Coalition and asked that the presentation be included on the November agenda.

4. Ann Arbor for Public Power

Greg Woodring, an Ann Arbor for Public Power organizer and Ypsilanti City resident, provided a Power Point presentation outlining the efforts of the campaign to move Ann Arbor to a public energy system as opposed to their current DTE system. He outlined reasons behind the efforts and explained the proposed solution of municipalization. Query, comment and discussion followed.

VII. CONSENT AGENDA

1. Approval of September 13, 2021 minutes

Collins (Second: Foley) moved to approve the Consent Agenda as submitted.

Roll Call Vote – Ayes: Commissioners Michalowski, Heine, Foley, Collins, Simmons
Abstain: Commissioner Gibbons
Nays: None
Absent: Commissioner Bayha
Motion Carried.

VIII. WORK SESSIONS – none

IX. RESOLUTIONS/MOTIONS/DISCUSSIONS

1. **Resolution to Support Durbin Pellet Free Waters**
2. **Storm Drain Awareness Resolution Discussion**
3. **Recycle Bin Updates**

Heine (Second: Gibbons) moved to postpone Section 9. "Resolutions/Motions/Discussions" to the November meeting due to the lateness of the hour.

Roll Call Vote – Ayes: Commissioners Michalowski, Heine, Foley, Gibbons, Collins, Simmons
Nays: None
Absent: Commissioner Bayha
Motion Carried.

X. PUBLIC COMMENT

One public comment from Deisha Myles, Ypsilanti Township resident.

XI. COMMISSIONER REPORTS

Commissioners shared updates of events and activities they are involved with and/or are working on as relates to sustainability. Some discussion topics included: Washtenaw County Climate Action Plan; Resilience Hub; SEMIS Coalition; SAW grant; "The Story of Plastic"; Washtenaw County Black Farmer's Fund; Black Walnut trees; planting/growing/mulch classes; reading literacy; Huron River program; storm drain research.

XII. PROPOSED BUSINESS

Proposed items were notated for the next meeting.

XIII. NEXT MEETING DATE

November 8, 2021

XIV. ADJOURNMENT: 9:16 p.m.

Simmons (Second: Gibbons) moved to adjourn the meeting of the Sustainability Commission.

Voice Vote: Unanimous **Motion: Carried**

City of Ypsilanti
SUSTAINABILITY COMMISSION
One South Huron Street
Ypsilanti, Michigan 48197

2022 Calendar of Meetings

The regular meetings of the City of Ypsilanti **Sustainability Commission** for 2022 will be held on the **on the second Monday of each month,** unless otherwise indicated. Meetings will start at 7:00 p.m. in the City Hall Council Chambers (first floor) at One South Huron Street, Ypsilanti, Michigan.

January 10
February 14
March 14
April 11
May 9
June 13
August 8
September 12
October 10
November 14
December 12

The City of Ypsilanti encourages persons with disabilities to participate and will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired, Limited English Proficiency (LEP) services, and audios of printed materials being considered at the meeting. Individuals requiring auxiliary aids or services should provide two (2) days' notice to the City, and contact the City by writing or calling the following:

City Clerk's Office
One South Huron Street
Ypsilanti, Michigan 48197
(734) 483-1100

All persons are welcome to attend. For further information on the Sustainability Commission, contact the Clerk's Department at the above address or visit http://www.cityofypsilanti.com/SustainabilityCommission.

Resolved by the Ypsilanti Sustainability Commission:

Whereas the water in the Great Lakes is owned by the general public according to the Public Trust Doctrine,

Whereas the State of Michigan has an important role to play in protecting the great lakes which holds 20% of world's fresh surface water and 90% of North America's,

Whereas Sen. Dick Durbin of Illinois introduced S.1507 the "Plastic Pellet Free Waters Act To Address Pollution In Great Lakes," which places "EFFLUENT LIMITATIONS FOR WASTEWATER, SPILLS, AND RUNOFF FROM PLASTIC POLYMER PRODUCTION FACILITIES, PLASTIC MOLDING AND FORMING FACILITIES, AND OTHER POINT SOURCES ASSOCIATED WITH THE TRANSPORT AND PACKAGING OF PLASTIC PELLETS OR OTHER PRE-PRODUCTION PLASTIC MATERIALS."

Whereas Sen. Durbin's act is related to S. 984 which is Sen. Jeff Merkley of Oregon's "Break Free from Plastic Pollution Act of 2021," which wants "To amend the Solid Waste Disposal Act to reduce the production and use of certain single-use plastic products and packaging, to improve the responsibility of producers in the design, collection, reuse, recycling, and disposal of their consumer products and packaging, to prevent pollution from consumer products and packaging from entering into animal and human food chains and waterways, and for other purposes."

Whereas neither of Michigan's senators, Sen. Debbie Stabenow nor Sen. Gary Peters, have joined as co-sponsors,

Whereas the Sustainability Commission has been talking about ways to address plastics and how to move the costs of recycling and reducing plastic waste to the producers as opposed to the end-users,

Whereas the "Water is Life Festival" was hosted on September 4,

Therefore Be It Resolved That: the Sustainability Commission asks our City Council to encourage our US Senators to join as co-sponsors to these two bills, and to take leadership with others that protect our Great Lakes.

Be it Further Resolved That: The Sustainability Commission requests to learn more about work that our US Senators are doing in the areas related to our Action Plan.

Offered by Commissioner Desiraé Simmons

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117TH CONGRESS
1ST SESSION

S. 1507

To require the Administrator of the Environmental Protection Agency to promulgate certain limitations with respect to pre-production plastic pellet pollution, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 29, 2021

Mr. DURBIN introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

---

A BILL

To require the Administrator of the Environmental Protection Agency to promulgate certain limitations with respect to pre-production plastic pellet pollution, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited the "Plastic Pellet Free Waters Act".

SEC. 2. EFFLUENT LIMITATIONS FOR WASTEWATER, SPILLS, AND RUNOFF FROM PLASTIC POLYMER PRODUCTION FACILITIES, PLASTIC MOLDING AND FORMING FACILITIES, AND OTHER POINT SOURCES ASSOCIATED WITH THE TRANSPORT AND PACKAGING OF PLASTIC PELLETS OR OTHER PRE-PRODUCTION PLASTIC MATERIALS.

Not later than 60 days after the date of enactment of this Act, the Administrator of the Environmental Protection Agency (referred to in this section as the ''Administrator'') shall promulgate a final rule to ensure that—

(1) the discharge of plastic pellets or other pre-production plastic materials (including discharge into wastewater and other runoff) from facilities regulated under part 414 or 463 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), is prohibited;

(2) the discharge of plastic pellets or other pre-production plastic materials (including discharge into wastewater and other runoff) from a point source (as defined in section 502 of the Federal Water Pollution Control Act (33 U.S.C. 1362)) that makes, uses, packages, or transports those plastic pellets and other pre-production plastic materials is prohibited; and

(3) the requirements under paragraphs (1) and (2) are reflected in—

(A) all wastewater, stormwater, and other permits issued by the Administrator and State-delegated programs under section 402 of the Federal Water Pollution Control Act (33 U.S.C. 1342) to facilities and other point sources (as defined in section 502 of that Act (33 U.S.C. 1362)) that make, use, package, or transport plastic pellets or other pre-production plastic materials, as determined by the Administrator, in addition to other applicable limits and standards; and

(B) all standards of performance promulgated under section 312(p) of the Federal Water Pollution Control Act (33 U.S.C. 1322(p)) that are applicable to point sources (as defined in section 502 of that Act (33 U.S.C. 1362)) that make, use, package, or transport plastic pellets or other pre-production plastic materials, as determined by the Administrator.

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117TH CONGRESS
1ST SESSION

S. 984

To amend the Solid Waste Disposal Act to reduce the production and use of certain single-use plastic products and packaging, to improve the responsibility of producers in the design, collection, reuse, recycling, and disposal of their consumer products and packaging, to prevent pollution from consumer products and packaging from entering into animal and human food chains and waterways, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 25, 2021

Mr. MERKLEY (for himself, Mr. BOOKER, Mr. DURBIN, Mr. MARKEY, Mr. WYDEN, Mr. BLUMENTHAL, Mr. LEAHY, Mrs. GILLIBRAND, Ms. WARREN, Mr. SANDERS, and Mrs. FEINSTEIN) introduced the following bill; which was read twice and referred to the Committee on Finance

---

A BILL

To amend the Solid Waste Disposal Act to reduce the production and use of certain single-use plastic products and packaging, to improve the responsibility of producers in the design, collection, reuse, recycling, and disposal of their consumer products and packaging, to prevent pollution from consumer products and packaging from entering into animal and human food chains and waterways, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Break Free From Plastic Pollution Act of 2021''.

SEC. 2. PRODUCER RESPONSIBILITY FOR PRODUCTS AND PACKAGING.

(a) IN GENERAL.—The Solid Waste Disposal Act (42 U.S.C. 6901 et seq.) is amended by adding at the end the following:

"Subtitle K—Producer Responsibility for Products and Packaging

"SEC. 12001. DEFINITIONS.

''In this subtitle:

''(1) ADVISORY COMMITTEE.—The term 'advisory committee' means an advisory committee established by an Organization under section 12102(c).

''(2) BEVERAGE.—

''(A) IN GENERAL.—The term 'beverage' means any drinkable liquid intended for human oral consumption, including—

''(i) water;

''(ii) flavored water;

''(iii) soda water;

''(iv) mineral water;

''(v) beer;

''(vi) a malt beverage;

"(vii) a carbonated soft drink;

"(viii) liquor;

"(ix) tea;

"(x) coffee;

"(xi) hard cider;

"(xii) fruit juice;

"(xiii) an energy or sports drink;

"(xiv) coconut water;

"(xv) wine;

"(xvi) a yogurt drink;

"(xvii) a probiotic drink;

"(xviii) a wine cooler; and

"(xix) any other beverage determined to be appropriate by the Administrator.

"(B) EXCLUSIONS.—The term 'beverage' does not include—

"(i) a drug regulated under the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.);

"(ii) infant formula; or

"(iii) a meal replacement liquid.

"(3) BEVERAGE CONTAINER.—

"(A) IN GENERAL.—The term 'beverage container' means a prepackaged beverage container—

"(i) made of any material, including glass, plastic, metal, and multimaterial; and

"(ii) the volume of which is not more than 3 liters.

"(B) EXCLUSION.—The term 'beverage container' does not include a covered product of any material used to sell a prepackaged beverage, such as—

"(i) a carton;

"(ii) a pouch; or

"(iii) aseptic packaging, such as a drink box.

"(C) INCLUSION.—Notwithstanding subparagraphs (A) and (B), for purposes of the program under section 12104, the term 'beverage container' includes a container for a beverage that is not described in those subparagraphs, such as a carton, pouch, or drink box, the responsible party for which elects to participate in the program under that section.

"(4) COMPOSTABLE.—

"(A) IN GENERAL.—Subject to subparagraph (B), the term 'compostable' means, with

respect to a covered product, that the covered product—

"(i)(I) meets the ASTM International standard specification for compostable products numbered D6400 or D6868—

"(aa) as in effect on the date of enactment of this subtitle; or

"(bb) as revised after the date of enactment of this subtitle, if the revision is approved by the Administrator; and

"(II) is labeled to reflect that the covered product meets a standard described in subclause (I);

"(ii) is certified as a compostable product by an independent party that is approved by the Administrator; or

"(iii) comprises only—

"(I) wood without any—

"(aa) coatings;

"(bb) additives; or

"(cc) effective beginning on February 1, 2023, toxic substances; or

"(II) natural fiber without any—

"(aa) coatings;

"(bb) additives; or

"(cc) effective beginning on February 1, 2023, toxic substances.

"(B) EXCLUSIONS.—The term 'compostable' shall not apply to—

"(i) paper; or

"(ii) effective beginning on February 1, 2023, any covered product that contains a toxic substance.

"(5) COVERED PRODUCT.—

"(A) IN GENERAL.—The term 'covered product' means, regardless of recyclability, compostability, and material type—

"(i) packaging;

"(ii) a food service product;

"(iii) paper;

"(iv) a single-use product that is not subject to the prohibition under section 12202(c); and

"(v) a container for a beverage that is not described in subparagraphs (A) and (B) of paragraph (3), such as a carton, pouch, or aseptic packaging, such as a

drink box, the responsible party for which does not elect to participate in the program under section 12104.

"(B) EXCLUSION.—The term 'covered product' does not include a beverage container.

"(6) COVERED RETAIL OR SERVICE ESTABLISHMENT.—

"(A) IN GENERAL.—Subject to subparagraph (B), the term 'covered retail or service establishment' means—

"(i) any restaurant; or

"(ii) any business that—

"(I) sells food, alcohol, or any other good or product to the public at retail; or

"(II) elects to comply with the requirements under, as applicable—

"(aa) section 12201; or

"(bb) section 12202.

"(B) EXCEPTION.—

"(i) IN GENERAL.—The term 'covered retail or service establishment' does not include any entity described in subparagraph (A) if the State, or any local government or political subdivision thereof, in which

that entity is located has been granted a waiver pursuant to clause (ii).

"(ii) WAIVER.—The Administrator shall prescribe regulations providing for the waiver of the application of section 12201 or 12202 with respect to any State, or any local government or political subdivision thereof, that has enacted requirements that are similar to the requirements imposed under that section.

"(7) FOOD SERVICE PRODUCT.—The term 'food service product' means an item intended to deliver a food product, regardless of the recyclability or compostability of the item, including—

"(A) a utensil;

"(B) a straw;

"(C) a drink cup;

"(D) a drink lid;

"(E) a food package;

"(F) a food container;

"(G) a plate;

"(H) a bowl;

"(I) a meat tray; and

"(J) a food wrap.

"(8) MICROFIBER.—The term 'microfiber' means a particle that—

"(A) has a fibrous shape;

"(B) is less than 5 millimeters in any direction; and

"(C) is released at any point during the full life cycle of a textile, including production, use, cleaning, recycling, and disposal.

"(9) ORGANIZATION.—The term 'Organization' means a Producer Responsibility Organization established under section 12102(a)(1).

"(10) PACKAGING.—

"(A) IN GENERAL.—The term 'packaging' means—

"(i) any package or container, regardless of recyclability or compostability; and

"(ii) any part of a package or container, regardless of recyclability or compostability, that includes material that is used for the containment, protection, handling, delivery, and presentation of goods that are sold, offered for sale, or distributed to consumers in the United States, including through an internet transaction.

"(B) INCLUSIONS.—The term 'packaging' includes packaging described in subparagraph (A) that is—

"(i) intended for the consumer market;

"(ii) service packaging designed and intended to be used or filled at the point of sale, such as carry-out bags, bulk good bags, take-out bags, and home delivery food service packaging;

"(iii) secondary packaging used to group products for multiunit sale;

"(iv) tertiary packaging used for transportation or distribution directly to a consumer; and

"(v) ancillary elements hung or attached to a product and performing a packaging function.

"(C) EXCLUSION.—The term 'packaging' does not include packaging described in subparagraph (A) that is—

"(i) used for the long-term protection or storage of a product; and

"(ii) with a life of not less than 5 years.

"(11) PAPER.—

"(A) IN GENERAL.—The term 'paper' means paper that is sold, offered for sale, delivered, or distributed to a consumer or business in the United States.

"(B) INCLUSIONS.—The term 'paper' includes—

"(i) newsprint and inserts;

"(ii) magazines and catalogs;

"(iii) direct mail;

"(iv) office paper; and

"(v) telephone directories.

"(C) EXCLUSIONS.—The term 'paper' does not include—

"(i) a paper product that, due to the intended use of the paper product, could become unsafe or unsanitary to recycle; or

"(ii) a bound book.

"(12) PLAN.—The term 'Plan' means a Product Stewardship Plan described in section 12105.

"(13) PROGRAM.—The term 'Program' means a Product Stewardship Program established under section 12102(a)(2).

"(14) RECYCLABLE.—The term 'recyclable' means, with respect to a covered product or beverage container, that—

"(A) the covered product or beverage container can be economically and technically recycled in current United States market conditions;

"(B) United States processing capacity is in operation to recycle, with the geographical distribution of the capacity aligned with the population of geographical regions of the United States, of the total quantity of the covered product or beverage container—

"(i) for each of calendar years 2021 through 2024, not less than 25 percent;

"(ii) for each of calendar years 2025 through 2029, not less than 35 percent;

"(iii) for each of calendar years 2030 through 2034, not less than 50 percent; and

"(iv) for calendar year 2035 and each calendar year thereafter, not less than 60 percent;

"(C) the consumer that uses the covered product or beverage container is not required to

remove an attached component of the covered product or beverage container, such as a shrink sleeve, label, or filter, before the covered product or beverage container can be recycled; and

"(D) effective beginning on February 1, 2023, the covered product or beverage container does not contain a toxic substance.

"(15) RECYCLE.—

"(A) IN GENERAL.—The term 'recycle' means the series of activities by which a covered product is—

"(i) collected, sorted, and processed; and

"(ii)(I) converted into a raw material with minimal loss of material quality;

"(II) used in the production of a new product, including the original product; or

"(III) in the case of composting or organic recycling, productively used for soil improvement.

"(B) EXCLUSION.—The term 'recycle' does not include—

"(i) the method of sorting, processing, and aggregating materials from solid waste that does not preserve the original material

quality, and, as a result, the aggregated material is no longer usable for its initial purpose or a substantially similar product and can only be used for inferior purposes or products (commonly referred to as 'downcycling');

"(ii) the use of waste—

"(I) as a fuel or fuel substitute;

"(II) for energy production;

"(III) for repurposing into infrastructure, including—

"(aa) pavement for streets or sidewalks;

"(bb) building materials; and

"(cc) other infrastructure projects, as determined by the Administrator;

"(IV) for alternate operating cover; or

"(V) within the footprint of a landfill; or

"(iii) the conversion of waste into alternative products, such as chemicals, feedstocks, fuels, and energy, through—

"(I) incineration;

"(II) pyrolysis;

"(III) hydropyrolysis;

"(IV) methanolysis;

"(V) gasification; or

"(VI) a similar technology, as determined by the Administrator.

"(16) RESPONSIBLE PARTY.—

"(A) BEVERAGE CONTAINERS.—

"(i) IN GENERAL.—With respect to a beverage sold in a beverage container, the term 'responsible party' means—

"(I) a person that engages in the distribution or sale of the beverage in a beverage container to a retailer in the United States, including any manufacturer that engages in that sale or distribution;

"(II) if subclause (I) does not apply, a person that engages in the sale of the beverage in a beverage container directly to a consumer in the United States; or

"(III) if subclauses (I) and (II) do not apply, a person that imports

the beverage sold in a beverage container into the United States for use in a commercial enterprise, sale, offer for sale, or distribution in the United States.

"(ii) RELATED DEFINITIONS.—In this subparagraph:

"(I) DISTRIBUTOR.—The term 'distributor' means a person that engages in the sale of beverages in beverage containers to a retailer in the United States.

"(II) MANUFACTURER.—The term 'manufacturer' means a person bottling, canning, or otherwise filling beverage containers for sale to distributors, importers, or retailers.

"(III) RETAILER.—

"(aa) IN GENERAL.—The term 'retailer' means a person in the United States that—

"(AA) engages in the sale of beverages in beverage containers to a consumer; or

"(BB) provides beverages in beverage containers to a person in commerce, including provision free of charge, such as at a workplace or event.

"(bb) INCLUSION.—The term 'retailer' includes a person that engages in the sale of or provides beverages in beverage containers, as described in item (aa), through a vending machine or similar means.

"(B) COVERED PRODUCTS.—With respect to a covered product, the term 'responsible party' means—

"(i) a person that manufactures and uses in a commercial enterprise, sells, offers for sale, or distributes the covered product in the United States under the brand of the manufacturer;

"(ii) if clause (i) does not apply, a person that is not the manufacturer of the covered product but is the owner or licensee of a trademark under which the

covered product is used in a commercial enterprise, sold, offered for sale, or distributed in the United States, whether or not the trademark is registered; or

"(iii) if clauses (i) and (ii) do not apply, a person that imports the covered product into the United States for use in a commercial enterprise, sale, offer for sale, or distribution in the United States.

"(17) RESTAURANT.—

"(A) IN GENERAL.—The term 'restaurant' means an establishment the primary business of which is the preparation of food or beverage—

"(i) for consumption by the public;

"(ii) in a form or quantity that is consumable immediately at the establishment, whether or not the food or beverage is consumed within the confines of the place where the food or beverage is prepared; or

"(iii) in a consumable form for consumption outside the place where the food or beverage is prepared.

"(B) INCLUSION.—The term 'restaurant' includes a fast food restaurant.

"(18) REUSABLE.—The term 'reusable' means, with respect to a covered product or beverage container, that the covered product or beverage container is—

"(A) technically feasible to reuse or refill in United States market conditions; and

"(B) reusable or refillable for such number of cycles, but not less than 100 cycles, as the Administrator determines to be appropriate for the covered product or beverage container.

"(19) SINGLE-USE PRODUCT.—

"(A) IN GENERAL.—The term 'single-use product' means a consumer product that is routinely disposed of, recycled, or otherwise discarded after a single use.

"(B) EXCLUSIONS.—The term 'single-use product' does not include—

"(i) medical food, supplements, devices, or other products determined by the Secretary of Health and Human Services to necessarily be made of plastic for the protection of public health;

"(ii) personal protective equipment, including—

"(I) masks;

"(II) gloves;

"(III) face shields; and

"(IV) other personal protective equipment determined by Secretary of Health and Human Services to be necessarily made out of plastic for the protection of public health;

"(iii) a personal hygiene product that, due to the intended use of the product, could become unsafe or unsanitary to recycle, such as a diaper; or

"(iv) packaging that is—

"(I) for any product described in clause (i); or

"(II) used for the shipment of hazardous materials that is prohibited from being composed of used materials under section 178.509 or 178.522 of title 49, Code of Federal Regulations (as in effect on the date of enactment of this subtitle).

"(20) TOXIC SUBSTANCE.—

"(A) IN GENERAL.—The term 'toxic substance' means any substance, mixture, or compound that may cause personal injury or dis-

ease to humans through ingestion, inhalation, or absorption through any body surface and satisfies 1 or more of the following conditions:

"(i) The substance, mixture, or compound is subject to reporting requirements under—

"(I) the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11001 et seq.);

"(II) the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.); or

"(III) section 112(r) of the Clean Air Act (42 U.S.C. 7412(r)).

"(ii) Testing has produced evidence recognized by the National Institute for Occupational Safety and Health or the Environmental Protection Agency that the substance, mixture, or compound poses acute or chronic health hazards.

"(iii) The Administrator or the Secretary of Health and Human Services has issued a public health advisory for the substance, mixture, or compound.

"(iv) Exposure to the substance, mixture, or compound is shown by expert testimony recognized by the Environmental Protection Agency to increase the risk of developing a latent disease.

"(v) The substance, mixture, or compound is—

"(I) a perfluoroalkyl or polyfluoroalkyl substance;

"(II) an ortho-phthalate;

"(III) a bisphenol compound (not including an alkyl-substituted bisphenol compound generated through a xylenol-aldehyde process); or

"(IV) a halogenated or nanoscale flame retardant chemical.

"(B) EXCLUSIONS.—The term 'toxic substance' does not include—

"(i) a pesticide applied—

"(I) in accordance with Federal, State, and local laws (including regulations); and

"(II) in accordance with the instructions of the manufacturer of the pesticide; or

"(ii) ammunition, a component of ammunition, a firearm, an air rifle, discharge of a firearm or an air rifle, hunting or fishing equipment, or a component of hunting or fishing equipment.

"(21) TRANSLATION SERVICES.—The term 'translation services' means professional language interpretation and translation services provided in any language spoken by more than 5 percent of the population residing within a community for written documents and notices and oral communications.

"(22) UNITED STATES.—The term 'United States', when used in a geographical sense, means all of the States.

"(23) UTENSIL.—

"(A) IN GENERAL.—The term 'utensil' means a product designed to be used by a consumer to facilitate the consumption of a food or beverage.

"(B) INCLUSIONS.—The term 'utensil' includes a knife, a fork, a spoon, a spork, a cock-

tail pick, a chopstick, a splash stick, and a stirrer.

"PART I—PRODUCTS IN THE MARKETPLACE

"SEC. 12101. EXTENDED PRODUCER RESPONSIBILITY.

''(a) IN GENERAL.—Except as provided in subsection (b), beginning on February 1, 2023, each responsible party for any covered product or beverage sold in a beverage container that is sold, distributed, or imported into the United States shall—

''(1) participate as a member of an Organization for which a Plan is approved by the Administrator; and

''(2) through that participation, satisfy the performance targets under section 12105(g).

''(b) EXEMPTIONS.—A responsible party for a covered product or beverage sold in a beverage container, including a responsible party that operates as a single point of retail sale and is not supplied by, or operated as part of, a franchise, shall not be subject to this part if the responsible party—

''(1)(A) for fiscal year 2022, has an annual revenue of less than $1,000,000; and

''(B) for fiscal year 2023 and each subsequent fiscal year, has an annual revenue of less than the applicable amount during the preceding fiscal year,

as adjusted to reflect changes for the 12-month period ending on the preceding November 30 in the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics of the Department of Labor; or

"(2) is the responsible party for less than 1 ton of covered products or beverage containers in commerce each year.

"(c) ENFORCEMENT.—

"(1) PROHIBITION.—It shall be unlawful for any person that is a responsible party for a covered product or beverage sold in a beverage container to sell, use, or distribute any covered product or beverage sold in a beverage container in commerce except in compliance with this part.

"(2) CIVIL PENALTY.—Any person that violates paragraph (1) shall be subject to a fine for each violation and for each day that the violation occurs in an amount of not more than $70,117.

"(3) INJUNCTIVE RELIEF.—The Administrator may bring a civil action to enjoin the sale, distribution, or importation into the United States of a covered product or beverage sold in a beverage container in violation of this part.

"(4) STATE ENFORCEMENT.—The Administrator may permit a State to carry out enforcement under paragraph (2) or (3) if the Administrator determines that the State meets such requirements as the Administrator may establish.

"(d) INAPPLICABILITY OF THE ANTITRUST LAWS.—The antitrust laws, as defined in the first section of the Clayton Act (15 U.S.C. 12), shall not apply to a responsible party or Organization that carries out activities in accordance with an approved Plan if the conduct is necessary to plan and implement the Plan.

"SEC. 12102. PRODUCER RESPONSIBILITY ORGANIZATIONS.

"(a) IN GENERAL.—

"(1) ESTABLISHMENT.—To satisfy the requirement under section 12101(a)(1), 1 or more responsible parties for a category of covered product or beverage sold in a beverage container shall establish a Producer Responsibility Organization that shall act as an agent and on behalf of each responsible party to carry out the responsibilities of the responsible party under this part with respect to that category of covered product or beverage sold in a beverage container.

"(2) PROGRAM.—An Organization shall establish a Product Stewardship Program to carry out

the responsibilities of the Organization under this part.

"(3) COORDINATION.—If more than 1 Organization is established under paragraph (1) with respect to a category of covered product or beverage sold in a beverage container, the Administrator shall—

"(A) coordinate and manage those Organizations; or

"(B) establish an entity—

"(i) to carry out subparagraph (A); and

"(ii) to conduct business between those Organizations and State and local governments.

"(4) MULTIPLE ORGANIZATIONS.—A responsible party—

"(A) may participate in more than 1 Organization if each Organization is established for a different category of covered products or beverages sold in beverage containers; and

"(B) may participate in—

"(i) only 1 national Organization with respect to—

"(I) each category of covered products; or

"(II) beverages sold in beverage containers; or

"(ii) only 1 regional Organization with respect to beverages sold in beverage containers and each category of covered products for each region in which the covered products or beverages sold in beverage containers produced by the responsible party are sold.

"(5) NONPROFIT STATUS.—An Organization shall be established and operated as an organization described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from taxation under 501(a) of that Code.

"(6) CATEGORIES.—The Administrator, in consultation with Organizations, shall promulgate regulations to establish categories of covered products and beverages sold in beverage containers for purposes of this part.

"(b) PARTICIPATION FEES.—

"(1) IN GENERAL.—Subject to paragraph (5), an Organization shall charge each responsible party

a fee for membership in the Organization in accordance with this subsection.

"(2) COMPONENTS.—A fee charged to a responsible party under paragraph (1) shall include—

"(A) costs of management and cleanup in accordance with paragraph (3); and

"(B) administrative costs in accordance with paragraph (4).

"(3) MANAGEMENT AND CLEANUP COSTS.—

"(A) IN GENERAL.—A fee under paragraph (1) shall include, with respect to a responsible party, the costs of management (which shall include costs assessed by the advisory committee for the Organization, in consultation with municipalities, other government entities, contracted entities, and other stakeholders, for collecting, transporting, processing, recycling, and composting) or cleaning up the covered products or beverage containers of the responsible party after consumer use through the applicable Program, including administrative costs.

"(B) CONSIDERATIONS.—In determining the costs of management and cleanup described in subparagraph (A) with respect to a respon-

sible party, an Organization shall, at a minimum, take into account—

"(i) the cost to properly manage the applicable category of covered product or beverage container waste;

"(ii) the cost to assist in cleaning up the covered product or beverage container waste, including waste generated before the date of enactment of this subtitle, of the responsible party from—

"(I) public places;

"(II) freshwater and marine environments, to the extent that cleanup can be accomplished without harming the existing marine life and intact ecosystems; and

"(III) materials in compost facilities or other facilities handling organic wastes;

"(iii) to the extent that cleanup of the covered products or beverage containers from freshwater and marine environments cannot be accomplished without harming the existing freshwater and marine life and

intact ecosystems, the cost of other appropriate mitigation measures;

"(iv) the higher cost of managing covered products that—

"(I) bond materials together, making the covered product more difficult to recycle, such as plastic bonded with paper or metal;

"(II) would typically be recyclable or compostable, but, as a consequence of the design of the covered product, has the effect of disrupting recycling or composting processes;

"(III) includes labels, inks, liners, and adhesives containing—

"(aa) heavy metals; or

"(bb) effective beginning on February 1, 2023, other toxic substances; or

"(IV) cannot be mechanically recycled;

"(v) the lower cost of managing—

"(I) beverage containers that have—

"(aa) nondetachable caps; or

"(bb) other innovations and design characteristics to prevent littering; and

"(II) contact containers and other covered products that—

"(aa) are specifically designed to be reusable or refillable; and

"(bb) have a high reuse or refill rate;

"(vi) covered products with lower environmental impacts, including—

"(I) covered products that are made of—

"(aa) sustainable or renewably sourced materials; or

"(bb) at least 90 percent by weight of any combination of—

"(AA) postconsumer recycled content; or

"(BB) materials derived from land or freshwater or marine environment litter; and

"(II) compostable covered products that—

"(aa) have direct contact with food; or

"(bb) help divert food waste from a landfill; and

"(vii) the percentage of postconsumer recycled content verified by an independent party designated by the Administrator that exceeds the minimum requirements established under section 12302 in the packaging, if the recycled content does not disrupt the potential for future recycling.

"(4) ADMINISTRATIVE COSTS.—

"(A) IN GENERAL.—A fee under paragraph (1) shall include—

"(i) the administrative costs to the Organization of carrying out the Program;

"(ii) the cost to the Administrator of administering this part with respect to the applicable Organization, including—

"(I) oversight, including annual oversight;

"(II) issuance of any rules;

"(III) planning;

"(IV) Plan review;

"(V) compliance;

"(VI) outreach and education;

"(VII) professional language interpretation and translation services for all publicly distributed materials;

"(VIII) enforcement;

"(IX) sufficient staff positions to administer this part; and

"(X) other activities directly related to the activities described in subclauses (I) through (IX); and

"(iii) the cost to a State for carrying out enforcement with respect to the applicable Organization.

"(B) CONSIDERATION.—In determining the fee for a responsible party under subparagraph (A), an Organization shall consider the company size and annual revenue of the responsible party.

"(C) REIMBURSEMENT.—An Organization shall reimburse—

"(i) the Administrator for costs described subparagraph (A)(ii) incurred by the Administrator; and

"(ii) a State for costs described in subparagraph (A)(iii) incurred by the State.

"(D) ADMINISTRATOR REIMBURSEMENTS ACCOUNT.—

"(i) IN GENERAL.—The Administrator shall deposit reimbursements received from an Organization under subparagraph (C)(i) into a dedicated account established for that Organization, which shall be available to the Administrator for activities of the Administrator associated with overseeing the Plan and Program of the Organization.

"(ii) REPORTS.—Not less frequently than annually, the Administrator shall—

"(I) submit to Congress a report describing the amount of reimbursements deposited into each account under clause (i); and

"(II) make the report described in subclause (I) publicly available.

"(5) APPROVAL.—

"(A) IN GENERAL.—Before an Organization may charge a fee or revise the amount of a fee to be charged under paragraph (1)—

"(i) the Organization shall submit to the Administrator the fee structure and the methodology for determining that fee structure; and

"(ii)(I) the Organization shall receive notification of approval of the fee structure under subparagraph (B)(ii); or

"(II) the fee structure shall be considered approved under subparagraph (C).

"(B) APPROVAL.—Not later than 60 days after receipt of a fee structure under subparagraph (A)(i), the Administrator shall—

"(i)(I) approve the fee structure if the Administrator determines that the fee structure is in accordance with this subsection; or

"(II) deny the fee structure if the Administrator determines that the fee structure is not in accordance with this subsection; and

"(ii) notify the Organization of—

"(I) the determination under clause (i); and

"(II) in the case of a denial under clause (i)(II), the reasons for

the denial and recommendations for revisions that are likely to be approved.

"(C) FAILURE TO MEET DEADLINE.—If the Administrator does not make a determination under clause (i) of subparagraph (B) by the date required under that subparagraph, the fee structure shall be considered to be approved.

"(c) ADVISORY COMMITTEES.—

"(1) IN GENERAL.—An Organization shall establish an advisory committee that represents a range of interested and engaged persons relevant to the category of covered products or beverages sold in beverage containers of the applicable Program, including—

"(A) collection providers;

"(B) cleanup service providers;

"(C) recyclers;

"(D) composters; and

"(E) governmental entities.

"(2) COMPOSITION.—

"(A) IN GENERAL.—At a minimum, an advisory committee shall include individuals representing each of—

"(i) responsible parties, such as a trade association;

"(ii) States;

"(iii) cities, including—

"(I) small and large cities; and

"(II) cities located in urban and rural counties;

"(iv) counties, including—

"(I) small and large counties; and

"(II) urban and rural counties;

"(v) public sector recycling, composting, and solid waste industries for the applicable type of product or packaging;

"(vi) private sector recycling, composting, and solid waste industries for the applicable type of product or packaging;

"(vii) recycled feedstock users for the applicable type of product or packaging;

"(viii) public place litter programs;

"(ix) freshwater and marine litter programs;

"(x) environmental organizations;

"(xi) disability advocates;

"(xii) Indian Tribes; and

"(xiii) environmental and human health scientists.

"(B) REQUIREMENTS.—

"(i) IN GENERAL.—Each individual serving on an advisory committee may represent only 1 category described in clauses (i) through (xiii) of subparagraph (A).

"(ii) DISPROPORTIONATE REPRESENTATION.—An Organization shall ensure that no category described in clauses (i) through (xiii) of subparagraph (A) has disproportionate representation on an advisory committee.

"(3) PUBLIC COMMENT.—

"(A) IN GENERAL.—Each year, an Organization shall provide a process to receive comments from additional stakeholders and community members, which to the maximum extent practicable shall include diverse ethnic populations.

"(B) COMMUNICATION METHODS AND REQUIREMENTS.—With respect to the public com-

ment process described in subparagraph (A), an Organization—

"(i) shall provide translation services; and

"(ii)(I) shall not require members of the public to produce a form of identification or register their names, provide other information, complete a questionnaire, or otherwise fulfill any condition precedent to attending a public hearing; and

"(II) shall include on any attendance list, register, questionnaire, or other similar document that is used during a public hearing a clear statement that the signing, registering, or completion of the document is voluntary.

"(4) EXPENSES.—

"(A) IN GENERAL.—An Organization shall reimburse representatives of community groups, Indian Tribes, State and local governments, and nonprofit organizations for expenses relating to participating on the advisory committee.

"(B) OTHER MEMBERS.—Other members of the advisory committee may be compensated for travel expenses as needed to ensure the abil-

ity of those members to participate on the advisory committee.

"(C) LANGUAGE AND INTERPRETATION SERVICES.—An Organization shall be financially responsible for providing translation services under paragraphs (3)(B)(i) and (6)(E).

"(5) DUTIES OF ADVISORY COMMITTEES.—An advisory committee shall—

"(A)(i) prepare a Plan for the Organization and any revisions to that Plan; and

"(ii) submit to the Organization that Plan or revisions to the Plan for review and approval under paragraph (6)(B); and

"(B) submit to the Organization and directly to the Administrator any reports, recommendations, or objections of the advisory committee relating to the Plan, fee structure, or other activities of the Organization.

"(6) DUTIES.—An Organization—

"(A) shall hold an advisory committee meeting at least once per year;

"(B) shall review and approve the Plan or revisions to the Plan submitted by an advisory committee under paragraph (5)(A)(ii) prior to

the submission to the Administrator of the Plan or revisions under section 12105;

"(C) shall include a summary of advisory committee engagement and input in the report under section 12107;

"(D) shall not modify a Plan without the approval of the advisory committee of the Organization; and

"(E) shall provide translation services for any member of the advisory committee.

"SEC. 12103. COVERED PRODUCT MANAGEMENT.

"(a) IN GENERAL.—In carrying out a Program, a responsible party, acting through an Organization, shall—

"(1) meet the performance targets under the applicable Plan, as described in section 12105(g)—

"(A) in the case of covered products, by providing for the collection and sorting of covered products in accordance with subsection (b); or

"(B) in the case of beverage containers, by carrying out the responsibilities under section 12104(e); and

"(2) in accordance with subsection (c), provide for the cleanup of covered products or beverage containers that become litter.

"(b) COLLECTION.—

"(1) IN GENERAL.—A Program shall provide widespread, convenient, and equitable access to opportunities for the collection of covered products in accordance with this subsection.

"(2) CONVENIENCE.—

"(A) IN GENERAL.—Subject to subparagraph (B), collection opportunities described in paragraph (1) shall—

"(i) be provided throughout each State, Tribal land, and territory in which the applicable covered product is sold, including in rural and island communities;

"(ii) be as convenient as trash collection in the applicable area; and

"(iii) in a case in which collection of the applicable covered product by curbside collection is not practicable, be, as determined by the Administrator, and in the case of a city with a population of 750,000 or more residents, subject to the approval of the city, available for not less than 95 percent of the population of the applicable area within—

"(I) in the case of an urban area, a 10-minute walk; or

"(II) in the case of a rural area, the longer of—

"(aa) a 45-minute drive; and

"(bb) the time to drive to the nearest rural service center.

"(B) WAIVER.—The Administrator may waive the requirement under subparagraph (A) after—

"(i) consultation with the advisory committee of the applicable Organization and other appropriate stakeholders; and

"(ii) approval by the unit of local government with jurisdiction over the applicable area.

"(3) METHODS.—

"(A) CURBSIDE OR MULTIFAMILY COLLECTION.—With respect to a geographic area described in paragraph (2)(A), an Organization shall, at a minimum, provide the opportunity for the collection of the applicable covered product through a curbside or multifamily recycling collection service, if—

"(i) curbside collection is provided, as of the date of enactment of this subtitle, to residents in single family and multifamily residences in an applicable area;

"(ii) the category of covered product—

"(I) is suitable for curbside or multifamily recycling collection; and

"(II) can be effectively sorted by facilities receiving the covered product after collection; and

"(iii) the provider of the service agrees—

"(I) to accept the category of covered product; and

"(II) to a compensation agreement described in subparagraph (C).

"(B) OTHER METHODS.—In addition to the method described in subparagraph (A), an Organization may comply with the requirement under paragraph (1) by—

"(i) entering into an agreement with—

"(I) an entity that carries out a program through which consumers

may drop off the covered product at a designated location (commonly known as a 'depot drop-off program'); or

''(II) a retailer that accepts the covered product from consumers (commonly known as 'retailer take-back'); or

''(ii) such other means as the Organization determines to be appropriate, including by establishing a collection program or service, including a program or service that provides collection from public spaces.

''(C) COMPENSATION AGREEMENTS.—

''(i) IN GENERAL.—An Organization may comply with this subsection by entering into an agreement with a governmental or private entity under which the Organization compensates the entity for the collection of covered products.

''(ii) REQUIREMENT.—As part of a compensation agreement under clause (i), an Organization shall offer to provide reimbursement of not less than 100 percent of the cost to the entity of managing the

covered products, including, as applicable, administrative costs, sorting, and reprocessing.

"(4) MANAGING COLLECTED COVERED PRODUCTS.—In carrying out this subsection, an Organization shall—

"(A) ensure that—

"(i) the collection means and systems used direct the covered product waste to—

"(I) facilities that are effective in sorting and reprocessing covered product waste prior to shipment in a form ready for remanufacture into new products; or

"(II) other facilities that the Administrator determines appropriately manage the covered product waste;

"(ii) covered products are managed in an environmentally sound and socially just manner at reprocessing, disposal, or other facilities operating with human health and environmental protection standards that are broadly equivalent to the standards required in—

"(I) the United States; or

"(II) other countries that are members of the Organization for Economic Cooperation and Development; and

"(iii) the Program includes measures to track, verify, and publicly report that covered products are managed responsibly and not reexported to countries in which standards described in clause (ii) are not met; and

"(B) take measures—

"(i) to promote high-quality recycling that retains material quality;

"(ii) to meet the necessary quality standards for the relevant facilities that manufacture new products from the collected, sorted, and reprocessed materials; and

"(iii) to prioritize the recycling of products and packaging into uses that achieve the greatest environmental benefits from displacing the use of virgin materials.

"(5) COSTS.—

"(A) IN GENERAL.—A responsible party or an Organization may not charge an entity de-

scribed in subparagraph (B) any amount for the cost of carrying out this subsection.

"(B) ENTITIES DESCRIBED.—An entity referred to in subparagraph (A) is a single family or multifamily dwelling or publicly owned land (such as a sidewalk, plaza, and park) for which a recycling collection service is provided.

"(6) EFFECT.—Nothing in this subsection—

"(A) requires a governmental entity to provide for the collection of covered products; or

"(B) prohibits a governmental entity from providing for the collection and sorting of covered products.

"(c) CLEANUP; REDUCTION IN WASTE.—A Program shall—

"(1) provide funding to, and coordinate with, entities that collect covered product or beverage container litter from public places or freshwater or marine environments in the United States, including Tribal land and territories; and

"(2) coordinate product design and Program innovations to reduce covered product or beverage container waste.

"(d) MINIMUM FUNDING REQUIREMENTS.—

"(1) IN GENERAL.—Of Program expenditures for a fiscal year, an Organization shall ensure that—

"(A)(i) for the 10-year period beginning on the date on which the Organization is established, not less than 50 percent is used for the improvement and development of new market, recycling, or composting infrastructure in the United States, which may include installing or upgrading equipment at existing sorting and reprocessing facilities—

"(I) to improve sorting of covered product waste; or

"(II) to mitigate the impacts of covered product waste to other commodities; and

"(ii) for each year thereafter, such percentage as the Administrator may establish, but not less than 10 percent, is used for the purposes described in clause (i); and

"(B) not less than 10 percent is used for—

"(i) cleanup activities under subsection (c)(1); and

"(ii) the removal of covered product or beverage container contaminants at

compost facilities and other facilities that manage organic materials.

"(2) DETERMINATION OF EXPENDITURES.—For purposes of carrying out paragraph (1), Program expenditures for a fiscal year shall be based on—

"(A) in the case of the first fiscal year of the Program, budgeted expenditures for the fiscal year; and

"(B) in the case of each fiscal year thereafter, Program expenditures for the previous fiscal year.

"SEC. 12104. NATIONAL BEVERAGE CONTAINER PROGRAM.

"(a) RESPONSIBILITIES OF RESPONSIBLE PARTIES.—

"(1) IN GENERAL.—Each responsible party for beverages sold in beverage containers shall—

"(A) charge to a retailer to which the beverage in a beverage container is delivered a deposit in the amount of the applicable refund value described in subsection (c) on delivery; and

"(B) on receipt of an empty beverage container from a retailer, pay to the retailer a re-

fund in the amount of the applicable refund value described in subsection (c).

"(2) USE OF DEPOSITS FROM UNREDEEMED BEVERAGE CONTAINERS.—A responsible party shall use any amounts received as deposits under paragraph (1)(A) for which an empty beverage container is not returned to the Organization responsible for the material of the beverage container for investment in collection, recycling, and reuse infrastructure.

"(b) RESPONSIBILITIES OF RETAILERS.—

"(1) IN GENERAL.—Except as provided in paragraph (2), each retailer of beverages in beverage containers shall—

"(A) charge to the customer to which the beverage in a beverage container is sold a deposit in the amount of the applicable refund value described in subsection (c) on the sale;

"(B) on receipt of an empty beverage container from a customer, pay to the customer a refund in the amount of the applicable refund value described in subsection (c);

"(C) accept a beverage container and pay a refund under subparagraph (B)—

"(i) during any period that the retailer is open for business; and

"(ii) regardless of whether the specific beverage container was sold by the retailer; and

"(D) in the case of a retailer that is equal to or greater than 5,000 square feet, accept any brand and size of beverage container and pay a refund under subparagraph (B) for the beverage container, regardless of whether the retailer sells that brand or size of beverage container.

"(2) EXCEPTIONS.—

"(A) DIRTY OR DAMAGED.—A retailer described in paragraph (1) may refuse to accept a beverage container and pay a refund under paragraph (1)(B) if the beverage container—

"(i) visibly contains or is contaminated by a substance other than—

"(I) water;

"(II) residue of the original contents; or

"(III) ordinary dust; or

"(ii) is so damaged that the brand or refund label appearing on the container cannot be identified.

"(B) CONTAINER LIMITATION.—

"(i) LARGE RETAILERS.—A retailer described in paragraph (1) that is equal to or greater than 5,000 square feet may refuse to accept, and pay a refund under paragraph (1)(B) for, more than 250 beverage containers per person per day.

"(ii) SMALL RETAILERS.—A retailer described in paragraph (1) that is less than 5,000 square feet may refuse to accept, and pay a refund under paragraph (1)(B) for, more than 50 beverage containers per person per day.

"(C) BRAND AND SIZE.—A retailer described in paragraph (1) that is less than 5,000 square feet may refuse to accept, and pay a refund under paragraph (1)(B) for, a brand or size of beverage container that the retailer does not sell.

"(D) RESTAURANTS.—A retailer described in paragraph (1) that is a restaurant may refuse to accept, and pay a refund under para-

graph (1)(B) for, a beverage container that the restaurant did not sell.

"(E) OTHER MEANS OF RETURN.—The Administrator may permit the establishment of convenience zones, under which a retailer within a convenience zone is exempt from this subsection if the Administrator determines that the retailer—

"(i) is located within close proximity to a redemption center established under subsection (e)(2); and

"(ii) shares in the cost of the operation of that redemption center with the responsible party.

"(c) APPLICABLE REFUND VALUE.—

"(1) IN GENERAL.—The amount of the refund value referred to in subsections (a) and (b) shall be not less than 10 cents.

"(2) ADJUSTMENTS.—Beginning on the date that is 3 years after the date of enactment of this subtitle, the Administrator may—

"(A) increase the minimum refund value under paragraph (1) to account for—

"(i) inflation; and

"(ii) other factors, such as a failure to meet performance targets described in section 12105(g); or

"(B) decrease the minimum refund value under paragraph (1) to account for beverage containers that—

"(i) are specifically designed to be reusable or refillable; and

"(ii) have a high reuse or refill rate.

"(3) DISCRETIONARY INCREASES.—A responsible party, with respect to a covered product or beverage container, or a State may require a refund value that is more than the minimum refund value under paragraph (1).

"(d) LABELING.—Any manufacturer, importer, or distributor of a beverage in a beverage container that is sold in the United States shall include on the label of the beverage container a standardized description of the applicable refund value in such a manner that the description is clearly visible.

"(e) RESPONSIBILITIES OF ORGANIZATIONS.—

"(1) COLLECTION AND STORAGE.—An Organization of responsible parties for beverages sold in beverage containers shall facilitate collection and storage of beverage containers that are returned to

retailers under this section by providing storage or other means to collect the beverage containers until collection for recycling, such as reverse vending or other convenient options for consumers.

"(2) REDEMPTION CENTERS.—

"(A) IN GENERAL.—An Organization of responsible parties for beverages sold in beverage containers shall establish and operate facilities to accept beverage containers from consumers.

"(B) REQUIREMENTS.—A facility established under subparagraph (A) shall—

"(i) be staffed and available to the public—

"(I) each day other than a Federal or local holiday; and

"(II) not less than 10 hours each day;

"(ii) accept—

"(I) any beverage container; and

"(II) not less than 350 beverage containers per person per day; and

"(iii) provide—

"(I) hand or automated counts conducted by staff of the facility;

"(II) a drop door for consumers to drop off bags of mixed beverage containers for staff of the facility to count, for which the facility may collect a convenience fee; or

"(III) any other convenient means of receiving and counting beverage containers, as determined by the Administrator.

"(3) CURBSIDE COLLECTION.—An Organization may pay an entity that collects curbside recycling the value of the applicable refund value under subsection (c) for beverage containers collected, based on weight or another measurement that approximates the amount of the refunds, as negotiated by the Organization and the entity.

"(f) EXCLUDED STATES.—

"(1) DEFINITION OF ELIGIBLE STATE.—In this subsection, the term 'eligible State' means a State that—

"(A) has in effect a beverage container law before the date of enactment of this subtitle; and

"(B) enacts legislation after the date of enactment of this subtitle to update the beverage

container law described in subparagraph (A) to be consistent with the refund value amounts under, and beverage containers covered by, this part.

"(2) COMPLIANCE WITH STATE LAW.—In the case of an eligible State, compliance with the law of the eligible State by a distributor, retailer, manufacturer, importer, or Organization shall be considered to be compliance with this section.

"(3) CONFORMITY.—An eligible State is encouraged to negotiate with relevant Organizations on updated features of the beverage container law of the eligible State, such as sharing new revenue from increased deposits.

"SEC. 12105. PRODUCT STEWARDSHIP PLANS.

"(a) IN GENERAL.—Not later than February 1, 2023, each Organization shall submit to the Administrator a Product Stewardship Plan that describes how the Organization will carry out the responsibilities of the Organization under this part.

"(b) CONTENTS.—Each Plan shall contain, at a minimum—

"(1) contact information for the Organization submitting the Plan;

"(2) a list of participating responsible parties and brands covered by the applicable Program, including organization structure for each responsible party; and

"(3) a description of—

"(A) each category of covered product or beverage sold in a beverage container covered by the Plan;

"(B) funding for the Organization, including how fees will be structured and collected in accordance with section 12102(b)(5).

"(C) performance targets under subsection (g);

"(D) the means by which each type of covered product or beverage container will be collected in accordance with section 12103 or 12104, as applicable, to meet—

"(i) the consumer convenience and geographic coverage standards for collection under this part; and

"(ii) the performance targets under subsection (g);

"(E) consumer education plans in accordance with section 12106;

"(F) a customer service process, such as a process for answering citizen or customer questions and resolving issues;

"(G) sound management practices for worker health and safety;

"(H) plans for complying with design-for-environment and labeling requirements under sections 12303 and 12304, respectively;

"(I) the means by which responsible parties will work with, improve, and fund existing recycling, composting, litter cleanup, and disposal programs and infrastructure;

"(J) any plans to transition to reusable covered products;

"(K) the process to consider and establish innovative means to increase collection of covered products;

"(L) the means by which the Organization is mitigating fraud in the applicable Program;

"(M) the means by which responsible parties will consult with the Federal Government, State and local governments, and any other important stakeholders; and

"(N) plans for market development.

"(c) APPROVAL OR DENIAL.—Not later than 90 days after receiving a Plan under subsection (a), the Administrator shall—

"(1) approve or deny the Plan; and

"(2) notify the applicable Organization of the determination of the Administrator under paragraph (1).

"(d) IMPLEMENTATION.—Beginning on August 1, 2023, not later than 60 days after receiving a notification of approval of a Plan under subsection (c)(2), the applicable Organization shall begin implementation of the Plan.

"(e) EXPIRATION.—A Plan—

"(1) shall expire on the date that is 5 years after the date on which the Plan is approved; and

"(2) may be renewed.

"(f) REVISIONS.—The Administrator may require a revision to a Plan before the expiration date of the Plan if—

"(1) the performance targets under subsection (g) are not being met; or

"(2) there is a change in circumstances that otherwise warrants a revision.

"(g) PERFORMANCE TARGETS.—

"(1) IN GENERAL.—Each Plan shall contain achievable performance targets for the collection and

recycling of the applicable covered product or beverage container in accordance with section 12103 or 12104, as applicable.

"(2) MINIMUM REQUIREMENTS.—Performance targets under paragraph (1) shall be not less than, by weight of covered product—

"(A) by December 31, 2027—

"(i) 65 percent of all covered products, except paper, recycled;

"(ii) 75 percent of all beverage containers and paper covered products recycled; and

"(iii) 50 percent of all industrially compostable covered products composted;

"(B) by December 31, 2030, 15 percent of covered products for which packaging is eliminated or offered in reusable packaging;

"(C) by such dates as the Administrator determines to be appropriate after December 31, 2030, such percentage of covered products for which packaging shall be eliminated or that shall be offered in reusable packaging as the Administrator determines to be appropriate; and

"(D) by December 31, 2032—

"(i) 80 percent of all covered products, except paper, recycled;

"(ii) 90 percent of all beverage containers and paper covered products recycled; and

"(iii) 70 percent of all industrially compostable covered products composted.

"(3) LABELING RESTRICTION.—A responsible party for a covered product shall not include on the covered product a label claiming that the covered product is recyclable or compostable if the covered product does not satisfy the performance targets under paragraph (2).

"SEC. 12106. OUTREACH AND EDUCATION.

"(a) IN GENERAL.—A Program shall include the provision of outreach and education to consumers throughout the United States regarding—

"(1) proper end-of-life management of covered products and beverage containers;

"(2) the location and availability of curbside and drop-off collection opportunities;

"(3) how to prevent litter of covered products and beverage containers; and

"(4) recycling and composting instructions that are—

"(A) consistent nationwide, except as necessary to take into account differences among State and local laws;

"(B) easy to understand; and

"(C) easily accessible, including accessibility in multiple languages to reach a diverse ethnic population.

"(b) ACTIVITIES.—Outreach and education under subsection (a) shall—

"(1) be designed to achieve the management goals of covered products and beverage containers under this part, including the prevention of contamination by covered products and beverage containers in other management systems or in other materials;

"(2) be coordinated across programs nationally to avoid confusion for consumers; and

"(3) include, at a minimum—

"(A) consulting on education, outreach, and communications with the advisory committee of the applicable Organization and other stakeholders;

"(B) coordinating with and assisting local municipal programs, municipal contracted programs, solid waste collection companies, and

other entities providing services to the Program;

"(C) developing and providing outreach and education to the diverse ethnic populations of the United States through translated and culturally appropriate materials, including in-language and targeted outreach;

"(D) establishing consumer websites and mobile applications that provide information about methods to prevent covered product and beverage container pollution and how consumers may access and use collection services;

"(E) working with Program participants to label covered products and beverage containers with information to assist consumers in responsibly managing covered product and beverage container waste; and

"(F) determining the effectiveness of outreach, education, communications, and convenience of services through periodic surveys of consumers.

"(c) EVALUATION.—If the Administrator determines that performance targets under section 12105(g) are not being met with respect to an Organization, the Organization shall—

"(1) conduct an evaluation of the effectiveness of outreach and education efforts under this section to determine whether changes are necessary to improve those outreach and education efforts; and

"(2) develop information that may be used to improve outreach and education efforts under this section.

"SEC. 12107. REPORTING.

"(a) IN GENERAL.—An Organization shall annually make available on a publicly available website a report that contains—

"(1) with respect to covered products or beverages in beverage containers sold or imported by members of the Organization, a description of, at a minimum—

"(A) the quantity of covered products or beverage containers sold or imported and collected, by submaterial type and State, for the year covered by the report and each prior year;

"(B) management of the covered products or beverage containers, including recycling rates, by submaterial type, for the year covered by the report and each prior year;

"(C) data on the final destination and quantity of reclaimed covered products or bev-

erage containers, by submaterial type, including the form of any covered products or beverage containers exported;

"(D) contamination in the recycling stream of the covered products or beverage containers;

"(E) collection service vendors and collection locations, including—

"(i) the geographic distribution of collection;

"(ii) distance to population centers;

"(iii) hours;

"(iv) actions taken to reduce barriers to collection by expanding curbside collection or facilitating drop-offs; and

"(v) frequency of collection availability;

"(F) efforts to reduce environmental impacts at each stage of the lifecycle of the covered products or beverage containers; and

"(G) the quantity of covered products that have been eliminated or replaced by reusable packaging, delineated by submaterial type and State, for the year covered by the report and for each prior year for which a report was submitted;

"(2) the composition of the advisory committee for the Organization;

"(3) expenses of the Organization;

"(4) outreach and education efforts under section 12106, including the results of those efforts;

"(5) customer service efforts and results;

"(6) performance relative to the performance targets of the Plan under section 12105(g);

"(7) the status of packaging innovation and design characteristics to prevent littering, make covered products or beverage containers reusable or refillable, or reduce overall covered product and beverage container waste; and

"(8) any other information that the Administrator determines to be appropriate.

"(b) CONSISTENCY.—Organizations shall make efforts to coordinate reporting under subsection (a) to provide for consistency of information across a category of covered products or beverage containers.

"(c) AUDITS.—Every 2 years, the Administrator shall conduct an audit of—

"(1) collection and recycling to provide an accounting of the collection and recycling of covered products and beverage containers that are not pro-

duced by a responsible party or an Organization; and

"(2) covered products and beverage containers of brand names found in litter to provide for an accounting of covered products and other litter that continues to create pollution.

"(d) REDUCTIONS IN STATE AND LOCAL TAXES.—Not later than February 1, 2025, and annually thereafter, the Administrator shall prepare and make publicly available a report describing—

"(1) the effect of this part on costs incurred by State and local governments for the management and cleanup of covered products and beverage containers; and

"(2) any reductions in State and local taxes as a result of any reductions of costs described in paragraph (1).

"PART II—REDUCTION OF SINGLE-USE PRODUCTS

"SEC. 12201. PROHIBITION ON SINGLE-USE PLASTIC CARRY-OUT BAGS.

"(a) DEFINITION OF SINGLE-USE PLASTIC BAG.—In this section:

"(1) IN GENERAL.—The term 'single-use plastic bag' means a bag that is—

"(A) made of plastic; and

"(B) provided by a covered retail or service establishment to a customer at the point of sale, home delivery, the check stand, cash register, or other point of departure to a customer for use to transport, deliver, or carry away purchases.

"(2) EXCLUSIONS.—The term 'single-use plastic bag' does not include—

"(A) a bag that is subject to taxation under section 4056 of the Internal Revenue Code of 1986;

"(B) a bag that—

"(i) is made a material other than plastic film;

"(ii) is woven or nonwoven nylon, polypropylene, polyethylene-terephthalate, or Tyvek in a quantity less than 80 grams per square meter;

"(iii) has handles that are stitched and not heat-fused; and

"(iv) is machine washable; or

"(C) a covered product that is—

"(i) used by a consumer inside a store—

"(I) to package bulk items, such as fruit, vegetables, nuts, grains, candy, unwrapped prepared foods or bakery goods, or small hardware items; or

"(II) to contain or wrap—

"(aa) prepackaged or non-prepackaged frozen foods, meat, or fish; or

"(bb) flowers, potted plants, or other items the dampness of which may require the use of the nonhandled bag;

"(ii) a bag sold at retail in packages containing multiple bags intended to contain garbage or pet waste;

"(iii) a newspaper bag;

"(iv) a door hanger bag; or

"(v) a laundry or dry cleaning bag.

"(b) PROHIBITION.—A covered retail or service establishment shall not provide at the point of sale a single-use plastic bag to a customer.

"(c) ENFORCEMENT.—

"(1) WRITTEN NOTIFICATION FOR FIRST VIOLATION.—If a covered retail or service establishment

violates subsection (b), the Administrator shall provide that covered retail or service establishment with written notification regarding the violation of the requirement under that subsection.

"(2) SUBSEQUENT VIOLATIONS.—

"(A) IN GENERAL.—If a covered retail or service establishment, subsequent to receiving a written notification described in paragraph (1), violates subsection (b), the Administrator shall fine the covered retail or service establishment in accordance with subparagraph (B).

"(B) AMOUNT OF PENALTY.—For each violation during a calendar year, the amount of the penalty under subparagraph (A) shall be—

"(i) in the case of the first violation, $250;

"(ii) in the case of the second violation, $500; and

"(iii) in the case of the third violation or any subsequent violation, $1,000.

"(C) SEIZURE.—On a third violation or any subsequent violation under this paragraph by a covered retail or service establishment, the Administrator may seize any single-use plastic

bags in the possession of the covered retail or service establishment.

"(D) LIMITATION.—In the case of a covered retail or service establishment the annual revenue of which is less than $1,000,000, a penalty shall not be imposed under this paragraph more than once during any 7-day period.

"(3) STATE ENFORCEMENT.—The Administrator may permit a State to carry out enforcement under this subsection if the Administrator determines that the State meets such requirements as the Administrator may establish.

"(d) EFFECTIVE DATE.—The prohibition under this section shall take effect on January 1, 2023.

"SEC. 12202. REDUCTION OF OTHER SINGLE-USE PRODUCTS.

"(a) PROHIBITION ON PLASTIC UTENSILS AND PLASTIC STRAWS.—

"(1) UTENSILS.—A covered retail or service establishment may not use, provide, distribute, or sell a plastic utensil.

"(2) PLASTIC STRAWS.—

"(A) IN GENERAL.—Subject to subparagraphs (B) and (C), a covered retail or service establishment that sells food or beverages—

"(i) except as provided in clause (ii), may not provide a plastic straw to a customer;

"(ii) shall provide a plastic straw to a customer who requests a plastic straw;

"(iii) shall provide accessible means of communication, across all ordering platforms used by the covered retail or service establishment (such as online, mobile, and in-person), for customers to request a plastic straw; and

"(iv) shall keep in stock plastic straws for customers who request plastic straws.

"(B) EFFECTIVE FUNCTIONAL EQUIVALENTS.—If the Administrator, in consultation with the National Council on Disability and advocates representing the disability and environmental communities, determines that an effective functional equivalent to a plastic straw that can be recycled, composted, or disposed with minimal harm to the environment has been developed—

"(i) subparagraph (A) shall no longer apply; and

"(ii) a covered retail or service establishment may not provide a plastic straw to a customer.

"(C) EXCLUSION.—Subparagraph (A) shall not apply to the sale of plastic straws in bulk for home or personal use.

"(3) NONPLASTIC ALTERNATIVES.—A covered retail or service establishment may provide, distribute, or sell a reusable, compostable, or recyclable alternative to a plastic utensil or plastic straw only—

"(A) on request of a customer;

"(B) in the case of a compostable or recyclable alternative, if composting or recycling, as applicable, for the item is provided and locally accessible; and

"(C) effective beginning on February 1, 2023, if the alternative does not contain a toxic substance.

"(b) PROHIBITION ON OTHER SINGLE-USE PRODUCTS.—

"(1) IN GENERAL.—Except as provided in paragraphs (3) and (4), a covered retail or service establishment may not sell or distribute any single-use product that the Administrator determines is not re-

cyclable or compostable and can be replaced by a reusable or refillable item.

"(2) INCLUSIONS.—In the prohibition under paragraph (1), the Administrator shall include—

"(A) expanded polystyrene for use in food service products, disposable consumer coolers, or shipping packaging;

"(B) single-use personal care products, such as miniature bottles containing shampoo, soap, and lotion that are provided at hotels or motels;

"(C) noncompostable produce stickers; and

"(D) such other products that the Administrator determines by regulation to be appropriate.

"(3) EXCEPTION.—The prohibition under paragraph (1) shall not apply to the sale or distribution of an expanded polystyrene cooler for any medical use determined to be necessary by the Secretary of Health and Human Services.

"(4) TEMPORARY WAIVER.—The Administrator may grant a temporary waiver of not more than 1 year from the prohibition under paragraph (1) for the use of expanded polystyrene in shipping pack-

aging to protect a product of high value if a viable alternative to expanded polystyrene is not available.

"(c) ENFORCEMENT.—

"(1) WRITTEN NOTIFICATION FOR FIRST VIOLATION.—If a covered retail or service establishment violates subsection (a) or (b), the Administrator shall provide that covered retail or service establishment with written notification regarding the violation of the requirement under that subsection.

"(2) SUBSEQUENT VIOLATIONS.—

"(A) IN GENERAL.—If any covered retail or service establishment, subsequent to receiving a written notification described in paragraph (1), violates subsection (a) or (b), the Administrator shall fine the covered retail or service establishment in accordance with subparagraph (B).

"(B) AMOUNT OF PENALTY.—For each violation during a calendar year, the amount of the penalty under subparagraph (A) shall be—

"(i) in the case of the first violation, $250;

"(ii) in the case of the second violation, $500; and

"(iii) in the case of the third violation or any subsequent violation, $1,000.

"(C) SEIZURE.—On a third violation or any subsequent violation under this paragraph by a covered retail or service establishment, the Administrator may seize any plastic products prohibited under subsection (a) or (b) that are in the possession of the covered retail or service establishment.

"(D) LIMITATION.—In the case of a covered retail or service establishment the annual revenue of which is less than $1,000,000, a penalty shall not be imposed under this paragraph more than once during any 7-day period.

"(3) STATE ENFORCEMENT.—The Administrator may permit a State to carry out enforcement under this subsection if the Administrator determines that the State meets such requirements as the Administrator may establish.

"(d) EFFECTIVE DATE.—The prohibition under this section shall take effect on January 1, 2023.

"SEC. 12203. STUDY AND ACTION ON PLASTIC TOBACCO FILTERS AND ELECTRONIC CIGARETTES.

"(a) STUDY.—Not later than 2 years after the date of enactment of this subtitle, the Administrator, in con-

junction with the Commissioner of Food and Drugs and the Director of the National Institutes of Health, shall conduct a study on—

"(1) the environmental impacts and efficacy of tobacco filters made from plastic; and

"(2) the environmental impacts of electronic cigarettes, including disposable components of electronic cigarettes.

"(b) REPORT TO CONGRESS.—

"(1) IN GENERAL.—Not later than 180 days after the date on which the study under subsection (a) is concluded, the Administrator, in conjunction with the Commissioner of Food and Drugs, shall submit to the committees described in paragraph (2) a report describing recommendations to establish a program to reduce litter from, and the environmental impacts of, single-use tobacco filter products and electronic cigarettes.

"(2) COMMITTEES.—The committees referred to in paragraph (1) are—

"(A) the Committee on Health, Education, Labor, and Pensions of the Senate;

"(B) the Committee on Environment and Public Works of the Senate;

"(C) the Committee on Commerce, Science, and Transportation of the Senate; and

"(D) the Committee on Energy and Commerce of the House of Representatives.

"(c) PUBLICATION.—On submission of the report under subsection (b)(1), the Administrator, in conjunction with the Commissioner of Food and Drugs, shall publish in the Federal Register for public comment—

"(1) the report; and

"(2) a description of the actions the Administrator and the Commissioner of Food and Drugs intend to take during the 1-year period after the date of publication to reduce litter from, and the environmental impacts of, single-use tobacco filter products and electronic cigarettes, including recommendations for incorporating plastic tobacco filters and electronic cigarette components into an extended producer responsibility program.

"PART III—RECYCLING AND COMPOSTING

"SEC. 12301. RECYCLING AND COMPOSTING COLLECTION.

"The Administrator, in consultation with Organizations, State and local governments, and affected stakeholders, shall issue guidance to standardize recycling and composting collection across communities and States.

"SEC. 12302. REQUIREMENTS FOR THE PRODUCTION OF PRODUCTS CONTAINING RECYCLED CONTENT.

"(a) PLASTIC BEVERAGE CONTAINERS.—

"(1) IN GENERAL.—Subject to paragraph (2), the Administrator shall require each responsible party for plastic beverage containers to make the plastic beverage containers—

"(A) by 2025, of 25 percent post-consumer recycled content from United States sources;

"(B) by 2030, of 50 percent post-consumer recycled content from United States sources;

"(C) by 2035, of 70 percent post-consumer recycled content from United States sources;

"(D) by 2040, of 80 percent post-consumer recycled content from United States sources; and

"(E) by such dates thereafter as the Administrator shall establish, such percentages of post-consumer recycled content from United States sources as the Administrator determines by a rule to be appropriate.

"(2) ADJUSTMENT.—After consideration of the results of the study under subsection (b)(1), the Administrator may issue regulations to modify 1 or

more of the percentages described in subparagraphs (A) through (D) of paragraph (1).

"(3) NONTOXIC REQUIREMENT.—The Administrator shall require each responsible party for plastic beverage containers to ensure that, effective beginning on February 1, 2023, the plastic beverage containers do not contain any toxic substances.

"(b) OTHER COVERED PRODUCTS AND BEVERAGE CONTAINERS.—

"(1) STUDY.—The Administrator, in coordination with the Director of the National Institute of Standards and Technology, the Commissioner of Food and Drugs, and the head of any other relevant Federal agency, shall carry out a study to determine the technical and safe minimum post-consumer recycled content requirements for covered products and beverage containers, including beverage containers composed of glass, aluminum, and other materials.

"(2) REPORT.—

"(A) IN GENERAL.—Not later than 1 year after the date of enactment of this subtitle, the Administrator shall submit to Congress a report describing the results of the study under paragraph (1), including—

"(i) an estimate of the current and projected consumption of covered products and use of beverage containers in the United States;

"(ii) an estimate of current and projected future recycling rates of covered products and beverage containers in the United States;

"(iii) an assessment of techniques and recommendations to minimize the creation of new materials for covered products and beverage containers; and

"(iv) an assessment of—

"(I) post-consumer recycled content standards for covered products and beverage containers that are technologically feasible; and

"(II) the impact of the standards described in subclause (I) on recycling rates of covered products and beverage containers.

"(B) PUBLICATION.—On submission of the report under subparagraph (A) to Congress, the Administrator shall publish in the Federal Register for public comment—

"(i) the report; and

"(ii) a description of the actions the Administrator intends to take during the 1-year period after the date of publication in the Federal Register to establish minimum post-consumer recycled content standards for covered products and beverage containers.

"(3) MINIMUM STANDARDS.—

"(A) IN GENERAL.—Not later than 1 year after the Administrator publishes the report under paragraph (2)(B), the Administrator shall establish minimum post-consumer recycled content standards for covered products and beverage containers.

"(B) REQUIREMENT.—The standards established under subparagraph (A) shall increase the percentage by which covered products and beverage containers shall be composed of post-consumer recycled content over a time period established by the Administrator.

"SEC. 12303. DESIGNING FOR THE ENVIRONMENT.

"(a) IN GENERAL.—The Administrator shall require each responsible party for covered products and beverage containers to design the covered products and beverage

containers to minimize the environmental and health impacts of the covered products and beverage containers.

"(b) REQUIREMENTS.—In designing covered products and beverage containers in accordance with subsection (a), to minimize the impacts of extraction, manufacture, use, and end-of-life management, a responsible party shall consider—

"(1) eliminating or reducing the quantity of material used;

"(2) effective beginning on February 1, 2023, eliminating toxic substances;

"(3) eliminating or reducing mixed-polymer and mixed-material packaging;

"(4) reducing the use of all additives;

"(5) designing for reuse, refill, and lifespan extension;

"(6) incorporating recycled materials;

"(7) designing to reduce environmental impacts across the lifecycle of a product;

"(8) incorporating sustainably and renewably sourced material;

"(9) optimizing material to use the minimum quantity of packaging necessary to effectively deliver a product without damage or spoilage;

"(10) degradability of materials in cold-water environments; and

"(11) improving recyclability and compostability.

"(c) ENFORCEMENT.—

"(1) IN GENERAL.—If the Administrator determines that a responsible party for covered products or beverage containers has not designed covered products or beverage containers in accordance with subsection (b), the Administrator—

"(A) in the case of the first violation, shall provide that responsible party with written notification regarding the violation of the requirement under that subsection; and

"(B) in the case of any subsequent violation, may impose on the responsible party a fine in an amount of not more than $70,117, as determined by the Administrator, for each violation.

"(2) USE OF FEES.—The Administrator shall transfer the amounts of fees collected under paragraph (1) to the Reduction, Recycling, and Litter Cleanup Trust Fund established by section 9512 of the Internal Revenue Code of 1986.

"SEC. 12304. PRODUCT LABELING.

"(a) IN GENERAL.—A responsible party shall include labels on covered products and beverage containers that—

"(1) are easy to read; and

"(2) indicate that the covered product or beverage container is—

"(A) recyclable;

"(B) not recyclable;

"(C) compostable; or

"(D) reusable;

"(3) in the case of a covered product or beverage container that is not recyclable, does not include the universal chasing arrows recycling symbol or any other similar symbol that would lead a consumer to believe that the item should be sorted for recycling;

"(4) in the case of a plastic bag that is not compostable, is not tinted green or brown;

"(5) in the case of a compostable bag, is tinted green or brown and includes information identifying the entity designated by the Administrator that has certified that the product is compostable;

"(6) in the case of a covered product or beverage container that is compostable, includes a green or brown stripe or similar marking to identify that the item is compostable; and

"(7) in the case of a covered wipe product (as defined in subsection (a) of section 12305), satisfy the requirements under the regulations issued under subsection (b) of that section.

"(b) STANDARDIZED LABELS.—Not later than 2 years after the date of enactment of this subtitle, the Administrator shall establish or approve a standardized label for each category of covered product and beverage container to be used by responsible parties under subsection (a).

"(c) REQUIREMENT.—A label described in subsection (a), including a shrink sleeve—

"(1) shall be compatible with the intended method of discard for the covered product or beverage container; and

"(2) shall not require removal by consumers.

"(d) COMPATIBILITY.—The Administrator shall encourage label manufacturers, in coordination with the supply chains of those manufacturers, including substrate suppliers, converters, and ink suppliers, to work with the recycling industry to address label recycling compatibility challenges.

"(e) ENFORCEMENT.—

"(1) PROHIBITION.—It shall be unlawful for any person that is a responsible party for a covered

product or beverage sold in a beverage container to sell, use, or distribute any covered product or beverage sold in a beverage container in commerce except in compliance with this section.

"(2) CIVIL PENALTY.—Any person that violates paragraph (1) shall be subject to a fine for each violation and for each day that the violation occurs in an amount of not more than $70,117, as determined by the Administrator.

"(3) INJUNCTIVE RELIEF.—The Administrator may bring a civil action to enjoin the sale, distribution, or importation into the United States of a covered product or beverage sold in a beverage container in violation of this section.

"(4) STATE ENFORCEMENT.—The Administrator may permit a State to carry out enforcement under paragraph (2) or (3) if the Administrator determines that the State meets such requirements as the Administrator may establish.

"SEC. 12305. 'DO NOT FLUSH' LABELING.

"(a) DEFINITIONS.—In this section:

"(1) COMBINED PRODUCT.—The term 'combined product' means 2 or more products sold in shared retail packaging, of which—

"(A) at least 1 of the products is a covered wipe product; and

"(B) at least 1 of the products is another consumer product intended to be used in combination with that covered wipe product.

"(2) COVERED ENTITY.—The term 'covered entity' means a manufacturer, wholesaler, supplier, or retailer that is responsible for the labeling or packaging of a covered wipe product that is sold, produced, or offered for sale in the United States.

"(3) COVERED WIPE PRODUCT.—

"(A) IN GENERAL.—The term 'covered wipe product' means a premoistened, nonwoven disposable wipe sold or offered for sale—

"(i) that is marketed as a baby wipe or diapering wipe; or

"(ii) that—

"(I) is composed entirely, or in part, of petrochemical-derived fibers; and

"(II) has significant potential to be flushed.

"(B) INCLUSIONS.—The term 'covered wipe product' includes—

"(i) antibacterial wipes and disinfecting wipes;

"(ii) wipes intended for general purpose cleaning or bathroom cleaning, including toilet cleaning and hard surface cleaning; and

"(iii) wipes intended for personal care use on the body, including hand sanitizing, makeup removal, feminine hygiene, adult hygiene (including incontinence hygiene), and body cleansing.

"(4) HIGH CONTRAST.—

"(A) IN GENERAL.—The term 'high contrast' means, with respect to a symbol or label notice, that the symbol or label notice—

"(i) is light on a solid dark background or dark on a solid light background; and

"(ii) has a contrast percentage of at least 70 percent between that symbol or label notice and the background, using the formula described in subparagraph (B).

"(B) CONTRAST PERCENTAGE.—The contrast percentage referred to in subparagraph (A)(ii) is the product obtained by multiplying—

"(i) the quotient obtained by dividing—

"(I) the difference between—

"(aa) the light reflectance value of a lighter area; and

"(bb) the light reflectance value of a darker area; by

"(II) the light reflectance value of the lighter area described in subclause (I)(aa); and

"(ii) 100.

"(5) LABEL NOTICE.—The term 'label notice' means the written phrase 'Do Not Flush'.

"(6) PRINCIPAL DISPLAY PANEL.—The term 'principal display panel' means the side of a product package—

"(A) that is most likely to be displayed, presented, or shown under customary conditions of display for retail sale; and

"(B)(i) in the case of a cylindrical or near-cylindrical package, the surface area of which constitutes at least 40 percent of the product package, as measured by multiplying the height by the circumference of the package; or

"(ii) in the case of a flexible film package in which a rectangular prism or near-rectangular prism stack of wipes is housed within the film, the surface area of which is measured by multiplying the length by the width of the side of the package when the flexible packaging film is pressed flat against the stack of wipes on all sides of the stack.

"(7) SYMBOL.—The term 'symbol' means—

"(A) the 'Do Not Flush' symbol, as depicted in the Guidelines for Assessing the Flushability of Disposable Nonwoven Products (Edition 4; May 2018) published by the Association of the Nonwoven Fabrics Industry and the European Disposables And Nonwovens Association; or

"(B) a symbol otherwise identical to the symbol described in subparagraph (A) depicting an individual of another gender.

"(b) REGULATIONS.—Not later than 2 years after the date of enactment of this subtitle, the Administrator shall issue regulations requiring covered entities to label covered wipe products clearly and conspicuously in accordance with this section.

"(c) REQUIREMENTS.—

"(1) CYLINDRICAL PACKAGING.—In issuing regulations under subsection (b), the Administrator shall require a covered wipe product sold in cylindrical or near-cylindrical packaging, and intended to dispense individual wipes, to have—

"(A) the symbol and label notice on the principal display panel in a location reasonably visible to the user each time a wipe is dispensed; or

"(B) the symbol on the principal display panel and the label notice, or a combination of the label notice and symbol, on a flip lid in a manner that covers at least 8 percent of the surface area of the flip lid.

"(2) FLEXIBLE FILM PACKAGING.—In issuing regulations under subsection (b), the Administrator shall require a covered wipe product sold in flexible film packaging, and intended to dispense individual wipes, to have—

"(A) the symbol on the principal display panel and, if the principal display panel is not on the dispensing side of the packaging, on the dispensing side panel; and

"(B) the label notice on the principal display panel or the dispensing side panel, in a

prominent location reasonably visible to the user each time a wipe is dispensed.

"(3) RIGID PACKAGING.—In issuing regulations under subsection (b), the Administrator shall require a covered wipe product sold in a refillable tub or other rigid packaging that may be reused by a customer, and intended to dispense individual wipes, to have the symbol and label notice on the principal display panel in a prominent location reasonably visible to the user each time a wipe is dispensed.

"(4) PACKAGING NOT INTENDED TO DISPENSE INDIVIDUAL WIPES.—In issuing regulations under subsection (b), the Administrator shall require a covered wipe product sold in packaging that is not intended to dispense individual wipes to have the symbol and label notice on the principal display panel in a prominent location reasonably visible to the user of the covered wipe product.

"(5) BULK PACKAGING.—

"(A) IN GENERAL.—In issuing regulations under subsection (b), the Administrator shall require a covered wipe product sold in bulk at retail to have labeling in compliance with those regulations on both the outer packaging visible

at retail and the individual packaging contained within the outer packaging.

"(B) EXEMPTION.—The Administrator shall exempt from the requirements under subparagraph (A) the following:

"(i) Individually packaged covered wipe products that—

"(I) are contained within outer packaging;

"(II) are not intended to dispense individual wipes; and

"(III) have no retail labeling.

"(ii) Outer packaging that does not obscure the symbol and label notice on individually packaged covered wipe products contained within.

"(6) PACKAGING OF COMBINED PRODUCTS.—

"(A) OUTER PACKAGING.—In issuing regulations under subsection (b), the Administrator shall exempt the outer packaging of a combined product from the requirements of those regulations.

"(B) PACKAGES LESS THAN 3 BY 3 INCHES.—In issuing regulations under subsection (b), the Administrator shall provide

that, with respect to a covered wipe product in packaging smaller than 3 inches by 3 inches (such as an individually packaged wipe in tear-top packaging) and sold as part of a combined product, if a symbol and label notice are placed in a prominent location reasonably visible to the user of the covered wipe product, that covered wipe product shall be considered to be labeled clearly and conspicuously in accordance with those regulations.

"(d) REASONABLE VISIBILITY OF SYMBOL AND LABEL NOTICE.—

"(1) IN GENERAL.—In requiring the symbol and label notice under this section, the Administrator shall require that—

"(A) packaging seams or folds or other packaging design elements do not obscure the symbol or label notice;

"(B) the symbol and label notice are each equal in size to at least 2 percent of the surface area of the principal display panel; and

"(C) except as provided in paragraph (3), the symbol and label notice have high contrast with the immediate background of the packaging such that the symbol and label notice

may be seen and read by an ordinary individual under customary conditions of purchase and use.

"(2) PROXIMITY OF SYMBOL AND LABEL NOTICE.—In requiring the symbol and label notice under this section, the Administrator may allow a symbol and label notice on a principal display panel to be placed adjacently or on separate areas of the principal display panel.

"(3) EXCEPTION.—Paragraph (1)(C) shall not apply to an embossed symbol or label notice on the flip lid of a covered wipe product sold in cylindrical or near-cylindrical packaging.

"(e) ADDITIONAL WORDS OR PHRASES.—In issuing regulations under subsection (b), the Administrator shall allow additional words or phrases on a covered wipe product that describe consequences associated with flushing or disposing of that covered wipe product, if those words or phrases are consistent with the purposes of this section.

"(f) REPRESENTATIONS OF FLUSHABILITY.—In issuing regulations under subsection (b), the Administrator shall prohibit, with respect to a covered wipe product, the representation or marketing of flushable attributes, performance, or efficacy benefits.

"(g) COMPLIANCE WITH OTHER REQUIREMENTS.—

"(1) FIFRA REQUIREMENTS.—In issuing regulations under subsection (b), the Administrator shall include, with respect to a covered wipe product that contains a pesticide required to be registered under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), the following:

"(A) Instructions describing how such a covered wipe product may comply with the requirements of that Act and the regulations issued under subsection (b).

"(B) A requirement that, not later than 90 days after the date on which regulations are issued under subsection (b), a covered entity shall submit for approval by the Administrator a product label compliant with the instructions under subparagraph (A).

"(2) TYPE SIZE.—

"(A) FIFRA.—In issuing regulations under subsection (b), the Administrator shall require, in the case of a covered wipe product described in paragraph (1) that (by operation of requirements under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.) with respect to a pesticide in that covered wipe product) is required to display a

warning, if the requirements of those regulations would result in a type size for a label notice on the principal display panel of that covered wipe product larger than that warning, that the type size for the label notice shall be equal to or greater than the type size required for the 'keep out of reach of children' statement under that Act.

"(B) FHSA.—In issuing regulations under subsection (b), the Administrator shall ensure that if a covered wipe product is subject to a labeling requirement under section 2(p)(1) of the Federal Hazardous Substances Act (15 U.S.C. 1261(p)(1)) and the requirements of those regulations would result in a type size for a label notice larger than first aid instructions required under that section, the type size for the label notice shall be equal to or greater than the type size required for those first aid instructions.

"(h) APPLICABILITY.—The Administrator shall provide that the regulations issued under subsection (b) shall apply with respect to covered wipe products manufactured on or after the date that is 90 days after the date on which those regulations are issued.

"(i) PENALTY.—The Administrator may impose fines for purposes of enforcing this section in accordance with the following:

"(1) A fine of not more than $2,500 for each day that a violation of this section occurs.

"(2) In no event may the total amount of fines imposed for a single violation of this section exceed $100,000.

"SEC. 12306. RECYCLING AND COMPOSTING RECEPTACLE LABELING.

"(a) PURPOSE.—The purpose of this section is to establish guidelines for a national standardized labeling system for the development of labels for recycling and composting receptacles that use a methodology that is consistent throughout the United States to assist members of the public in properly recycling and composting.

"(b) DEFINITIONS.—In this section:

"(1) PUBLIC SPACE.—The term 'public space' means a business, an airport, a school, a stadium, a government office, a park, and any other public space, as determined by the Administrator.

"(2) RECYCLING OR COMPOSTING RECEPTACLE.—The term 'recycling or composting receptacle' means a recycling or composing bin, cart, or dumpster.

"(3) RESIDENTIAL RECYCLING AND COMPOSTING PROGRAM.—The term 'residential recycling and composting program' means a recycling and composting program that services single family dwellings, multifamily dwellings or facilities, or both.

"(c) GUIDELINES.—Not later than 2 years after the date of enactment of this subtitle, the Administrator shall develop and publish guidelines for a national standardized labeling system for an Organization to use to develop labels that—

"(1) use a national standardized methodology of colors, images, format, and terminology, including to address diverse ethnic populations;

"(2) shall be placed on recycling and composting receptacles in public spaces and the service area of the Organization in accordance with paragraphs (1)(D) and (2) of subsection (e); and

"(3) communicate to users of those recycling and composting receptacles—

"(A) the specific recyclables and compostables that the Organization accepts; and

"(B) the specific rules of sorting for that Organization.

"(d) DEVELOPMENT OF LABELS.—

"(1) IN GENERAL.—Each Organization in the United States shall, in accordance with the guidelines published under subsection (c), use the national standardized labeling system to develop labels for use on recycling and composting receptacles in public spaces and the service area of the Organization to communicate to users of those recycling and composting receptacles—

"(A) the specific recyclables and compostables that the Organization accepts; and

"(B) the specific rules of sorting for that Organization.

"(2) SIMPLE AND DETAILED VERSIONS.—In developing labels under paragraph (1), an Organization shall develop—

"(A) a simple version of the label for use on recycling and composting receptacles used in public spaces, which shall list the basic recyclables and compostables that the Organization accepts; and

"(B) a detailed version of the label for use on recycling and composting receptacles used as part of a residential recycling and composting program, taking into consideration the com-

plexity of the packaging and products disposed of by single family dwellings and multifamily dwellings and facilities.

"(e) DISTRIBUTION OF LABELS.—

"(1) SIMPLE VERSION.—

"(A) IN GENERAL.—An Organization shall distribute the simple version of the label developed by that Organization under subsection (d)(2)(A) to each customer of that Organization that owns or operates a public space in the service area of the Organization.

"(B) QUANTITY.—The quantity of labels distributed to an owner or operator of a public space under subparagraph (A) shall be reasonably sufficient to ensure that a label may be placed on each recycling and composting receptacle in that public space.

"(C) ADDITIONAL LABELS.—If the quantity of labels distributed under subparagraph (B) is insufficient, an Organization shall make available to owners and operators described in subparagraph (A) additional labels to purchase or download.

"(D) REQUIREMENT OF OWNERS AND OPERATORS.—An owner or operator of a public

space that receives labels under subparagraph (A) shall display the labels on the recycling and composting receptacles in that public space.

"(2) DETAILED VERSION.—An Organization or municipality, as applicable, that services a residential recycling and composting program in the area served by an Organization shall display a detailed standardized label developed by that Organization under subsection (d)(2)(B) on each recycling and composting receptacle used by the residential recycling and composting program.

"SEC. 12307. PROHIBITION ON CERTAIN EXPORTS OF WASTE.

"No person may export from the United States plastic waste, plastic parings, or scraps of plastic—

"(1) to a country that is not a member of the Organization for Economic Cooperation and Development;

"(2) without the prior informed consent of the relevant authorities in a receiving country that is a member of the Organization for Economic Cooperation and Development, if those exports—

"(A) are not of a single, nonhalogenated plastic polymer;

"(B) are contaminated with greater than 0.5 percent of—

"(i) other plastics; or

"(ii) other materials, including—

"(I) labels, adhesives, varnishes, waxes, inks, and paints; and

"(II) composite materials mixing plastics with nonplastic materials; or

"(C) are to be re-exported to a country that is not a member of the Organization for Economic Cooperation and Development; or

"(3) that are contaminated with—

"(A) hazardous chemicals;

"(B) effective beginning on February 1, 2023, toxic substances; or

"(C) other substances, to the extent that the export becomes hazardous waste.

"PART IV—LOCAL GOVERNMENT EFFORTS

"SEC. 12401. PROTECTION OF LOCAL GOVERNMENTS.

"Nothing in this subtitle or section 4056 of the Internal Revenue Code of 1986 preempts any State or local law in effect on or after the date of enactment of this subtitle that—

"(1) requires the collection and recycling of recyclables in a greater quantity than required under section 12105(g);

"(2) prohibits the sale or distribution of products that are not prohibited under part II;

"(3) requires products to be made of a greater percentage of post-consumer recycled content than required under section 12302;

"(4) imposes a fee or other charge for products not subject to taxation under section 4056 of the Internal Revenue Code of 1986; or

"(5) in any way exceeds the requirements of this subtitle.

"SEC. 12402. CLEAN COMMUNITIES PROGRAM.

"The Administrator shall establish a program, to be known as the 'Clean Communities Program', under which the Administrator shall leverage smart technology and social media to provide technical assistance to units of local government of States in cost-effectively—

"(1) identifying concentrated areas of pollution in that unit of local government; and

"(2) implementing source reduction solutions.

"PART V—REDUCTION OF OTHER SOURCES OF PLASTIC POLLUTION

"SEC. 12501. STUDY AND ACTION ON DERELICT FISHING GEAR.

''(a) REPORT.—Not later than 2 years after the date of enactment of this subtitle, the Under Secretary of Commerce for Oceans and Atmosphere (referred to in this section as the 'Under Secretary') shall submit to the Committee on Commerce, Science, and Transportation and the Committee on Environment and Public Works of the Senate and the Committee on Natural Resources of the House of Representatives a report that includes—

''(1) an analysis of the scale of fishing gear losses by United States and foreign fisheries, including—

''(A) the variance in the quantity of gear lost among—

''(i) domestic and foreign fisheries;

''(ii) types of fishing gear; and

''(iii) methods of fishing;

''(B) the means by which lost fishing gear is transported by ocean currents; and

''(C) common reasons that fishing gear is lost;

"(2) an evaluation of the ecological, human health, and maritime safety impacts of derelict fishing gear, and how those impacts vary across—

"(A) types of fishing gear;

"(B) materials used to construct fishing gear; and

"(C) geographic location;

"(3) recommendations on management measures—

"(A) to prevent fishing gear losses; and

"(B) to reduce the impacts of lost fishing gear;

"(4) an assessment of the cost of implementing management measures described in paragraph (3); and

"(5) an assessment of the impact of fishing gear loss attributable to foreign countries.

"(b) PUBLICATION.—On submission of the report under subsection (a), the Under Secretary shall publish in the Federal Register for public comment—

"(1) the report; and

"(2) a description of the actions the Under Secretary intends to take during the 1-year period after the date of publication to reduce litter from, and the environmental impacts of, commercial fishing gear.

"SEC. 12502. MANDATORY FILTRATION STANDARD FOR CLOTHES WASHERS.

"(a) DEFINITIONS.—In this section:

"(1) BUILT-IN FILTRATION UNIT.—The term 'built-in filtration unit' means a required filtration unit that is built into a newly manufactured clothes washer.

"(2) COMMERCIAL CLOTHES WASHING BUSINESS.—The term 'commercial clothes washing business' means a business establishment containing 1 or more clothes washers, including self-service clothes cleaning establishments.

"(3) LOW-INCOME INDIVIDUAL.—The term 'low-income individual' has the meaning given the term in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102).

"(4) REQUIRED FILTRATION UNIT.—The term 'required filtration unit' means a filtration unit that has a mesh size of not greater than 100 micrometers.

"(5) RETROFIT FILTRATION UNIT.—The term 'retrofit filtration unit' means a required filtration unit that—

"(A) is an-line filtration unit; and

"(B) may be retrofit onto an existing clothes washer.

"(b) FILTRATION UNITS REQUIRED.—

"(1) COMMERCIAL, INDUSTRIAL, AND GOVERNMENT-CONTRACTED CLOTHES WASHERS.—

"(A) IN GENERAL.—The Administrator shall ensure that—

"(i) not later than January 1, 2023, each government-contracted commercial clothes washer has a required filtration unit; and

"(ii) not later than January 1, 2024, each commercial clothes washer and industrial clothes washer has a required filtration unit.

"(B) NEW OR RETROFIT.—The requirement under subparagraph (A) may be met by—

"(i) the installation of a retrofit filtration unit on a previously purchased clothes washer; or

"(ii) the purchase of a new clothes washer that has a built-in filtration unit.

"(2) GENERAL REQUIREMENT.—The Administrator shall ensure that all new clothes washers, including residential clothes washers, sold in interstate commerce in the United States on and after January 1, 2025, have built-in filtration units.

"(c) GRANT, LOAN, AND FUNDING PROGRAMS.—

"(1) GOVERNMENT-CONTRACTED CLOTHES WASHERS.—The Administrator shall coordinate funding among other Federal agencies to ensure that the Federal Government meets the requirement under subsection (b)(1)(A)(i).

"(2) COMMERCIAL AND INDUSTRIAL CLOTHES WASHERS.—The Administrator may provide low-interest or forgivable loans to commercial clothes washing businesses to meet the requirement under subsection (b)(1)(A)(ii).

"(3) INDIVIDUALS.—The Administrator may provide grants, low-interest loans, or some combination of grants and low-interest loans to low-income individuals to assist low-income individuals in replacing a clothes washer without a built-in filtration unit with a clothes washer that has a built-in filtration unit.

"(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator such sums as are necessary to carry out this section.

"SEC. 12503. STUDY AND ACTION ON MICROFIBER POLLUTION REDUCTION.

"(a) IN GENERAL.—Not later than 1 year after the date of enactment of this subtitle, the Administrator, in

consultation with the heads of relevant Federal agencies, shall establish a competitive grant program to provide grants to eligible entities described in subsection (c) to carry out microfiber pollution reduction projects in accordance with this section.

"(b) OBJECTIVES.—To be eligible for a grant under subsection (a), a microfiber pollution reduction project shall accomplish 1 or more of the following objectives:

"(1) Improve industry and manufacturing best practices to reduce the generation of microfiber pollution—

"(A) during—

"(i) the production of textiles;

"(ii) the lifetime use of textiles; or

"(iii) the washing and cleaning of textiles; and

"(B) with a focus on increasing the use of recycled fibers.

"(2) Improve filtration technology for the removal of microfiber pollution from—

"(A) washing machines; or

"(B) wastewater treatment plants.

"(c) ELIGIBLE ENTITIES.—An entity that is eligible to receive a grant under subsection (a) is—

"(1) an institution of higher education;

"(2) a nonprofit organization;

"(3) a State, local, or Tribal government;

"(4) a for-profit organization;

"(5) a State agency responsible for managing wastewater treatment plants; or

"(6) a Federal agency that has statutory authority to receive transfers of funds.

"(d) PRIORITY.—In awarding grants under subsection (a), the Administrator shall give priority to a project that achieves more than 1 of the objectives described in subsection (b).

"(e) REPORT.—Not later than 2 years after the date on which the first grant is provided under subsection (a), the Administrator shall submit to Congress a report describing the results of the microfiber pollution reduction projects conducted under this section.

"(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

"SEC. 12504. MICROPLASTICS PILOT PROGRAM.

"(a) DEFINITION OF MICROPLASTIC.—In this section, the term 'microplastic' means a plastic or plastic-coated particle that is less than 5 millimeters in any dimension.

"(b) ESTABLISHMENT.—The Administrator shall establish a pilot program (referred to in this section as the 'pilot program') to test the efficacy and cost effectiveness of tools, technologies, and techniques—

"(1) to remove microplastics from the environment; and

"(2) to prevent the release of microplastics into the environment.

"(c) REQUIREMENTS.—In carrying out the pilot program, the Administrator shall include the testing of—

"(1) natural infrastructure;

"(2) green infrastructure (as defined in section 502 of the Federal Water Pollution Control Act (33 U.S.C. 1362)); and

"(3) mechanical removal systems (such as pumps) and filtration technologies.

"(d) ELIGIBLE PILOT PROGRAM LOCATIONS.—In carrying out the pilot program, the Administrator may carry out projects located in—

"(1) stormwater systems;

"(2) wastewater treatment facilities;

"(3) drinking water systems;

"(4) ports, harbors, inland waterways, estuaries, and marine environments; and

"(5) roadways, highways, and other streets used for vehicular travel.

"(e) OUTREACH.—In determining selection criteria and projects to carry out under the pilot program, the Administrator shall conduct outreach to—

"(1) the Interagency Marine Debris Coordinating Committee established under section 5(a) of the Marine Debris Act (33 U.S.C. 1954(a)); and

"(2) stakeholders and experts in the applicable field, as determined by the Administrator.

"(f) REPORTS.—

"(1) INITIAL REPORT.—Not later than 180 days after the date of enactment of this subtitle, the Administrator shall submit to Congress a report describing the outreach conducted under subsection (e).

"(2) SUBSEQUENT REPORT.—Not later than 3 years after the date on which the Administrator establishes the pilot program, the Administrator shall submit to Congress a report describing the effectiveness of projects carried out under the pilot program.

"(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

"SEC. 12505. GRANT PROGRAM TO SUPPORT INNOVATION IN PACKAGING REDUCTION AND REUSE.

''(a) IN GENERAL.—Not later than 1 year after the date of enactment of this subtitle, the Administrator shall establish a competitive grant program (referred to in this section as the 'program') to provide grants to eligible entities described in subsection (c) to carry out pilot-scale packaging reduction or reuse projects in accordance with this section.

''(b) OBJECTIVES.—To be eligible for a grant under the program, a pilot-scale packaging reduction or reuse project shall evaluate the efficacy and cost-effectiveness of tools, technologies, and techniques for 1 or more of the following objectives:

''(1) Expanding reuse and refill programs for—

''(A) cleaning materials;

''(B) bulk food products; and

''(C) beverages.

''(2) Assessing best practices for eliminating or reducing the use of plastic produce bags.

''(3) Expanding consumer knowledge of reuse and refill programs.

''(4) Otherwise eliminating or reducing the use of single-use plastic bags, as determined by the Administrator.

"(c) ELIGIBLE ENTITIES.—To be eligible to receive a grant under the program, an entity shall be—

"(1) an institution of higher education;

"(2) a nonprofit organization;

"(3) a State, local, or Tribal government;

"(4) a for-profit organization; or

"(5) a public-private partnership.

"(d) PRIORITIES.—In awarding grants under the program, the Administrator shall—

"(1) give priority to a project that achieves more than 1 of the objectives described in subsection (b); and

"(2) ensure that a grant is provided to carry out a project in each region of the Environmental Protection Agency.

"(e) REPORT.—Not later than 3 years after the date on which the Administrator establishes the program, the Administrator shall submit to Congress a report describing the effectiveness of the projects carried out under the program.

"(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated from the Reduction, Recycling, and Litter Cleanup Trust Fund established by section 9512 of the Internal Revenue Code of 1986 such sums as are necessary to carry out the pilot program.

"SEC. 12506. REPORT ON REUSE AND REFILL PRODUCT DELIVERY SYSTEMS.

"(a) IN GENERAL.—Not later than 3 years after the date of enactment of this subtitle, and every 5 years thereafter, the Administrator shall make publicly available a report on feasability and best practices relating to reuse and reusability within the following sectors:

"(1) Food service, including—

"(A) take out;

"(B) delivery of prepared meals; and

"(C) meal kits.

"(2) Consumer food and beverage products.

"(3) Consumer cleaning products.

"(4) Consumer personal care products.

"(5) Transportation or shipping of wholesale and retail goods.

"(6) Other sectors, as identified by the Administrator.

"(b) OBJECTIVES.—The report under subsection (a) shall evaluate and summarize—

"(1) types of reuse and refill product delivery systems that can be best used at different scales;

"(2) job creation opportunities through the use or expansion of reuse and refill systems;

"(3) economic costs and benefits for—

"(A) the businesses that deploy reuse and refill technologies; and

"(B) the parties responsible for waste collection and management; and

"(4) types of local, State, and Federal support needed to expand the use of reuse and refill systems.".

(b) CLERICAL AMENDMENT.—The table of contents for the Solid Waste Disposal Act (Public Law 89–272; 79 Stat. 997) is amended by inserting after the item relating to section 11011 the following:

"Subtitle K—Producer Responsibility for Products and Packaging

"Sec. 12001. Definitions.

"PART I—PRODUCTS IN THE MARKETPLACE

"Sec. 12101. Extended producer responsibility.
"Sec. 12102. Producer Responsibility Organizations.
"Sec. 12103. Covered product management.
"Sec. 12104. National beverage container program.
"Sec. 12105. Product Stewardship Plans.
"Sec. 12106. Outreach and education.
"Sec. 12107. Reporting.

"PART II—REDUCTION OF SINGLE-USE PRODUCTS

"Sec. 12201. Prohibition on single-use plastic carryout bags.
"Sec. 12202. Reduction of other single-use products.
"Sec. 12203. Study and action on plastic tobacco filters and electronic cigarettes.

"PART III—RECYCLING AND COMPOSTING

"Sec. 12301. Recycling and composting collection.
"Sec. 12302. Requirements for the production of products containing recycled content.
"Sec. 12303. Designing for the environment.
"Sec. 12304. Product labeling.
"Sec. 12305. 'Do Not Flush' labeling.
"Sec. 12306. Recycling and composting receptacle labeling.
"Sec. 12307. Prohibition on certain exports of waste.

"PART IV—LOCAL GOVERNMENT EFFORTS

"Sec. 12401. Protection of local governments.
"Sec. 12402. Clean Communities Program.

"PART V—REDUCTION OF OTHER SOURCES OF PLASTIC POLLUTION

"Sec. 12501. Study and action on derelict fishing gear.
"Sec. 12502. Mandatory filtration standard for clothes washers.
"Sec. 12503. Study and action on microfiber pollution reduction.
"Sec. 12504. Microplastics pilot program.
"Sec. 12505. Grant program to support innovation in packaging reduction and reuse.
"Sec. 12506. Report on reuse and refill product delivery systems.".

SEC. 3. IMPOSITION OF TAX ON CARRYOUT BAGS.

(a) GENERAL RULE.—Chapter 31 of the Internal Revenue Code of 1986 is amended by inserting after subchapter C the following new subchapter:

"Subchapter D—Carryout Bags

"Sec. 4056. Imposition of tax.

"SEC. 4056. IMPOSITION OF TAX.

"(a) GENERAL RULE.—There is hereby imposed on any retail sale a tax on each carryout bag provided to a customer by an applicable entity.

"(b) AMOUNT OF TAX.—The amount of tax imposed by subsection (a) shall be $0.10 per carryout bag.

"(c) LIABILITY FOR TAX.—The applicable entity shall be liable for the tax imposed by this section.

"(d) DEFINITIONS.—For purposes of this section—

"(1) APPLICABLE ENTITY.—

"(A) IN GENERAL.—Subject to subparagraph (B), the term 'applicable entity' means—

"(i) any restaurant (as defined in section 12001 of the Solid Waste Disposal Act), or

"(ii) any business which—

"(I) sells food, alcohol, or any other good or product to the public at retail, or

"(II) elects to comply with the requirements under this section.

"(B) EXCEPTION.—

"(i) IN GENERAL.—For purposes of this section, the term 'applicable entity' shall not include any entity described in subparagraph (A) if the State, or any local government or political subdivision thereof, in which such entity is located has been granted a waiver pursuant to clause (ii).

"(ii) WAIVER.—The Secretary shall prescribe rules providing for the waiver of application of this section with respect to any State, or any local government or political subdivision thereof, which has enacted a tax or fee on the provision of carryout bags which is similar to the tax imposed under this section.

"(2) CARRYOUT BAG.—

"(A) IN GENERAL.—The term 'carryout bag' means a bag of any material that is provided to a consumer at the point of sale to carry or cover purchases, merchandise, or other items.

"(B) EXCEPTIONS.—Such term shall not include any product described in section 12201(a)(2)(C) of the Solid Waste Disposal Act.

"(e) BAG TAX STATED SEPARATELY ON RECEIPT.—The tax imposed by subsection (a) shall be separately stated on the receipt of sale provided to the customer.

"(f) EXCEPTIONS.—The tax imposed under subsection (a) shall not apply to any carryout bag that is provided to a customer as part of a transaction in which the customer is purchasing any item using benefits received under the supplemental nutrition assistance program established under the Food and Nutrition Act of 2008 (7 U.S.C. 2011 et seq.) or the supplemental nutrition program for women, infants, and children authorized under section 17 of the Child Nutrition Act of 1966 (42 U.S.C. 1786).

"(g) PENALTIES.—

"(1) WRITTEN NOTIFICATION FOR FIRST VIOLATION.—If any applicable entity fails to collect the tax imposed under subsection (a) or satisfy the requirements under subsection (e), the Secretary shall provide such entity with written notification regarding the violation of the requirements under such subsections.

"(2) SUBSEQUENT VIOLATIONS.—

"(A) IN GENERAL.—If any applicable entity, subsequent to receiving a written notification described in paragraph (1), fails to collect the tax imposed under subsection (a) or satisfy the requirements under subsection (e), such entity shall pay a penalty in addition to the tax imposed under this section.

"(B) AMOUNT OF PENALTY.—For each violation during a calendar year, the amount of the penalty under subparagraph (A) shall be—

"(i) in the case of the first violation, $250,

"(ii) in the case of the second violation, $500, and

"(iii) in the case of the third violation or any subsequent violation, $1,000.

"(C) LIMITATION.—In the case of any applicable entity with less than $1,000,000 in total revenue for the year preceding the imposition of any penalty under this paragraph, any such penalty may not be imposed under this paragraph more than once during any 7-day period.

"(h) RULE OF CONSTRUCTION.—Nothing in this section or any regulations promulgated under this section shall preempt, limit, or supersede, or be interpreted to preempt, limit, or supersede—

"(1) any law or regulation relating to any tax or fee on carryout bags which is imposed by a State or local government entity, or any political subdivision, agency, or instrumentality thereof, or

"(2) any additional fees imposed by any applicable entity on carryout bags provided to its customers.".

(b) CARRYOUT BAG CREDIT PROGRAM.—Subchapter B of chapter 65 of such Code is amended by adding at the end the following new section:

"SEC. 6431. CARRYOUT BAG CREDIT PROGRAM.

"(a) ALLOWANCE OF CREDIT.—If—

"(1) tax has been imposed under section 4056 on any carryout bag,

"(2) an applicable entity provides such bag to a customer in a point of sale transaction, and

"(3) such entity has kept and can produce records for purposes of this section and section 4056 that include—

"(A) the total number of carryout bags provided to customers for which the tax was imposed under section 4056(a) and the amounts passed through to customers for such bags pursuant to section 4056(e), and

"(B) the total number of bags for which a refund was provided to customers pursuant to a carryout bag credit program,

the Secretary shall pay (without interest) to such entity an amount equal to the applicable amount for each bag provided by such entity in connection with a point of sale transaction.

"(b) APPLICABLE AMOUNT.—For purposes of subsection (a), the applicable amount is an amount equal to—

"(1) in the case of an applicable entity that has established a carryout bag credit program, $0.10, and

"(2) in the case of an applicable entity that has not established a carryout bag credit program, $0.04.

"(c) CARRYOUT BAG CREDIT PROGRAM.—For purposes of this section, the term 'carryout bag credit program' means a program established by an applicable entity which—

"(1) for each bag provided by the customer to package any items purchased from the applicable entity, such entity refunds such customer $0.05 for each such bag from the total cost of their purchase,

"(2) separately states the amount of such refund on the receipt of sale provided to the customer, and

"(3) prominently advertises such program at each entrance and checkout register of the applicable entity.

"(d) DEFINITIONS.—For purposes of this section, the terms 'applicable entity' and 'carryout bag' have the same meanings given such terms under section 4056(d).".

(c) ESTABLISHMENT OF TRUST FUND.—Subchapter A of chapter 98 of such Code is amended by adding at the end the following:

"SEC. 9512. REDUCTION, RECYCLING, AND LITTER CLEANUP TRUST FUND.

"(a) CREATION OF TRUST FUND.—There is established in the Treasury of the United States a trust fund to be known as the 'Reduction, Recycling, and Litter

Cleanup Trust Fund' (referred to in this section as the 'Trust Fund'), consisting of such amounts as may be appropriated or credited to the Trust Fund as provided in this section or section 9602(b).

"(b) TRANSFERS TO TRUST FUND.—There is hereby appropriated to the Trust Fund amounts equivalent to—

"(1) the amounts received in the Treasury pursuant to section 4056; and

"(2) the amounts determined by the Secretary to be equivalent to the amounts of fees collected under section 12303(c) of the Solid Waste Disposal Act.

"(c) EXPENDITURES FROM TRUST FUND.—Amounts in the Trust Fund shall be available, as provided by appropriation Acts, for—

"(1) making payments under section 6431,

"(2) making grants for—

"(A) reusable carryout bags, and

"(B) recycling, reuse, and composting infrastructure and litter cleanup, and

"(3) carrying out the grant program to support innovation in packaging reduction and reuse under section 12505 of the Solid Waste Disposal Act.".

(d) STUDY.—Not later than the date which is 18 months after the date of enactment of this Act, the Comp-

1 troller General of the United States shall conduct a study
2 on the effectiveness of sections 4056, 6431, and 9512 of
3 the Internal Revenue Code of 1986 (as added by this Act)
4 at reducing the use of carryout bags and encouraging the
5 use of reusable bags. The report shall address—
6 (1) the use of plastic or paper single-use carry-
7 out bags during the period preceding the enactment
8 of such sections,
9 (2) the effect of such sections on the citizens
10 and residents of the United States, including—
11 (A) the percentage reduction in the use of
12 plastic or paper single-use carryout bags as a
13 result of the enactment of such sections,
14 (B) the opinion among citizens and resi-
15 dents of the United States regarding the effect
16 of such sections, disaggregated by race and in-
17 come level, and
18 (C) the amount of substitution between
19 other types of plastic bags for single-use carry-
20 out bags,
21 (3) measures that the Comptroller General de-
22 termines may increase the effectiveness of such sec-
23 tions, including the amount of tax imposed on each
24 carryout bag, and

(4) any effects, both positive and negative, on United States businesses as a result of the enactment of such sections, including costs, storage space, and changes in paper bag usage.

The Comptroller General shall submit a report of such study to the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate.

(e) CLERICAL AMENDMENTS.—

(1) The table of subchapters for chapter 31 of such Code is amended by inserting after the item relating to subchapter C the following new item:

"Subchapter D. Carryout bags.".

(2) The table of sections for subchapter B of chapter 65 of such Code is amended by adding at the end the following new item:

"Sec. 6431. Carryout bag credit program.".

(3) The table of sections for subchapter A of chapter 98 of such Code is amended by adding at the end the following new item:

"Sec. 9512. Reduction, recycling, and litter cleanup trust fund.".

(f) EFFECTIVE DATE.—The amendments made by this section shall take effect on January 1, 2023.

SEC. 4. CLEAN AIR, CLEAN WATER, AND ENVIRONMENTAL JUSTICE.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) COVERED FACILITY.—The term ''covered facility'' means—

(A) an industrial facility that transforms natural gas liquids into ethylene and propylene for later conversion into plastic polymers;

(B) a plastic polymerization or polymer production facility;

(C) an industrial facility that repolymerizes plastic polymers into chemical feedstocks for use in new products or as fuel; and

(D) an industrial facility that generates fuel or energy from plastic polymers through waste-to-fuel technology, an incinerator, or other similar technology, as determined by the Administrator.

(3) COVERED PRODUCTS.—The term ''covered plastic'' means—

(A) ethylene;

(B) propylene;

(C) polyethylene in any form (including pellets, resin, nurdle, powder, and flakes);

(D) polypropylene in any form (including pellets, resin, nurdle, powder, and flakes);

(E) polyvinyl chloride in any form (including pellets, resin, nurdle, powder, and flakes); or

(F) other plastic polymer raw materials in any form (including pellets, resin, nurdle, powder, and flakes).

(4) ENVIRONMENTAL JUSTICE.—The term ''environmental justice'' means the fair treatment and meaningful involvement of all individuals, regardless of race, color, national origin, educational level, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies to ensure that—

(A) communities of color, indigenous communities, and low-income communities have access to public information and opportunities for meaningful public participation with respect to human health and environmental planning, regulations, and enforcement;

(B) no community of color, indigenous community, or low-income community is exposed to a disproportionate burden of the negative human health and environmental impacts

of pollution or other environmental hazards; and

(C) the 17 principles described in the document entitled ''The Principles of Environmental Justice'', written and adopted at the First National People of Color Environmental Leadership Summit held on October 24 through 27, 1991, in Washington, DC, are upheld.

(5) FENCELINE MONITORING.—The term ''fenceline monitoring'' means continuous, real-time monitoring of ambient air quality around the entire perimeter of a facility.

(6) FRONTLINE COMMUNITY.—

(A) IN GENERAL.—The term ''frontline community'' means a community located near a covered facility that has experienced systemic socioeconomic disparities or other forms of injustice.

(B) INCLUSIONS.—The term ''frontline community'' includes a low-income community, a community that includes indigenous peoples, and a community of color.

(7) MATERIAL RECOVERY FACILITY.—The term ''material recovery facility'' means a solid waste

management facility that processes materials for reuse or recycling.

(8) RENEWABLE ENERGY.—The term ''renewable energy'' means energy supplied by a project that uses wind, solar, geothermal, wave, current, tidal, or ocean thermal energy to generate electricity.

(9) SECRETARY.—The term ''Secretary'' means the Secretary of the Army, acting through the Chief of Engineers.

(10) SINGLE-USE PLASTIC.—

(A) IN GENERAL.—The term ''single-use plastic'' means a plastic product or packaging that is routinely disposed of, recycled, or otherwise discarded after a single use.

(B) EXCLUSIONS.—The term ''single-use plastic'' does not include—

(i) medical food, supplements, devices, or other products determined by the Secretary of Health and Human Services to necessarily be made of plastic for the protection of public health; or

(ii) packaging that is—

(I) for any product described in clause (i); or

(II) used for the shipment of hazardous materials that is prohibited from being composed of used materials under section 178.509 or section 178.522 of title 49, Code of Federal Regulations (as in effect on the date of enactment of this Act).

(11) TEMPORARY PAUSE PERIOD.—The term ''temporary pause period'' means the period—

(A) beginning on the date of enactment of this Act; and

(B) ending on the date that is the first date on which all regulations required under subsections (d) and (e) are in effect.

(12) ZERO-EMISSIONS ENERGY.—

(A) IN GENERAL.—The term ''zero-emissions energy'' means renewable energy the production of which emits no greenhouse gases at the production source.

(B) EXCLUSIONS.—The term ''zero-emissions energy'' does not include any energy generated by—

(i) a waste-to-energy technology;

(ii) an incinerator; or

(iii) any other similar technology, as determined by the Administrator.

(b) TEMPORARY PAUSE.—

(1) IN GENERAL.—Subject to paragraph (2), during the temporary pause period, notwithstanding any other provision of law—

(A) the Administrator shall not issue a new permit for a covered facility under—

(i) the Clean Air Act (42 U.S.C. 7401 et seq.); or

(ii) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

(B) the Secretary shall not issue a new permit for a covered facility under section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344);

(C) the Administrator shall object in writing under subsections (b) and (c) of section 505 of the Clean Air Act (42 U.S.C. 7661d) or section 402(d)(2) of the Federal Water Pollution Control Act (33 U.S.C. 1342(d)(2)), as applicable, to any new permit issued to a covered facility by a State agency delegated authority under the Clean Air Act (42 U.S.C. 7401 et seq.) or

the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.); and

(D) subject to subsection (g), the export of covered products is prohibited.

(2) EXCEPTION.—Paragraph (1) does not apply to a permit described in that paragraph for a facility that is—

(A) a material recovery facility; or

(B) a compost facility.

(c) STUDY.—

(1) IN GENERAL.—

(A) AGREEMENT.—The Administrator shall offer to enter into an agreement with the National Academy of Sciences and the National Institutes of Health to conduct a study of—

(i) the existing and planned expansion of the industry of the producers of covered products, including the entire supply chain, the extraction and refining of feedstocks, end uses, disposal fate, and lifecycle impacts of covered products;

(ii) the environmental justice and pollution impacts of covered facilities and the products of covered facilities;

(iii) the existing standard technologies and practices of covered facilities with respect to the discharge and emission of pollutants into the environment; and

(iv) the best available technologies and practices that reduce or eliminate the environmental justice and pollution impacts of covered facilities and the products of covered facilities.

(B) FAILURE TO ENTER AGREEMENT.—If the Administrator fails to enter into an agreement described in subparagraph (A), the Administrator shall conduct the study described in that subparagraph.

(2) REQUIREMENTS.—The study under paragraph (1) shall—

(A) consider—

(i) the direct, indirect, and cumulative environmental impacts of the industries of covered facilities to date; and

(ii) the impacts of the planned expansion of those industries, including local, regional, national, and international air, water, waste, climate change, public health,

and environmental justice impacts of those industries; and

(B) recommend technologies, standards, and practices to remediate or eliminate the local, regional, national, and international air, water, waste, climate change, public health, and environmental justice impacts of covered facilities and the industries related to covered facilities.

(3) REPORT.—Not later than 18 months after the date of enactment of this Act, the Administrator shall submit to Congress a report describing the results of the study under paragraph (1).

(d) CLEAN AIR.—

(1) TIMELY REVISION OF EMISSIONS STANDARDS.—Section 111(b)(1)(B) of the Clean Air Act (42 U.S.C. 7411(b)(1)(B)) is amended by striking the fifth sentence.

(2) NATIONAL SOURCE PERFORMANCE STANDARDS IMPLEMENTATION IMPROVEMENTS.—

(A) ZERO-EMISSIONS ENERGY.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule requiring that—

(i) covered facilities that manufacture olefins, including ethylene and propylene, use only zero-emissions energy sources, except to the extent that waste gases are recycled; and

(ii) covered facilities that manufacture low-density polyethylene, linear low-density polyethylene, high-density polyethylene, styrene, vinyl chloride, or synthetic organic fibers use only zero-emissions energy sources, except to the extent that waste gases are recycled, unless the Administrator—

(I) determines that under certain conditions (such as during the commencement or shut down of production at a covered facility), expenditures of energy that are not from zero-emissions energy sources are required; and

(II) publishes the determination under subclause (I) and a proposed mixture of zero-emissions energy and non-zero-emissions energy for those conditions in a rulemaking.

(B) NEW SOURCE PERFORMANCE STANDARDS FOR CERTAIN FACILITIES.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule—

(i) designating ethylene, propylene, polyethylene, and polypropylene production facilities as a category of stationary source under section 111(b)(1)(A) of the Clean Air Act (42 U.S.C. 7411(b)(1)(A)); and

(ii) establishing new source performance standards for the category of stationary source designated under clause (i) under section 111(f)(1) of the Clean Air Act (42 U.S.C. 7411(f)(1)).

(C) STORAGE VESSELS FOR COVERED PRODUCTS.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule modifying section 60.112b(a) of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that an owner or operator of a storage vessel containing liquid with a vapor pressure of equal to or more than 5 millimeters of mercury under actual storage

conditions that is regulated under that section uses—

(i) an internal floating roof tank connected to a volatile organic compound control device; or

(ii) a fixed-roof tank connected to a volatile organic compound control device.

(D) FLARING.—Not later than 30 days after the date of enactment of this Act, the Administrator shall promulgate a final rule—

(i) modifying title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that flaring, either at ground-level or elevated, shall only be permitted when necessary solely for safety reasons; and

(ii) modifying sections 60.112b(a)(3)(ii), 60.115b(d)(1), 60.482–10a(d), 60.662(b), 60.702(b), and 60.562–1(a)(1)(i)(C) of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that—

(I) references to flare standards under those sections refer to the flare

standards established under clause (i); and

(II) the flare standards under those sections are, without exception, continuously applied.

(E) SOCMI EQUIPMENT LEAKS.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule—

(i) modifying section 60.482–1a of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that owners and operators use process units and components with a leak-less or seal-less design;

(ii) modifying section 60.482–1a(f) of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that owners and operators use optical gas imaging monitoring pursuant to section 60.5397a of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), on a quarterly basis, unless the owner or operator receives approval from the Administrator

in writing to use Method 21 of the Environmental Protection Agency (as described in appendix A–7 of part 60 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act)) with a repair threshold of 500 parts per million;

(iii) modifying 60.482–6a of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that the use of open-ended valves or lines is prohibited except if a showing is made that the use of an open-ended valve or line is necessary for safety reasons; and

(iv) modifying subpart VVa of part 60 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act) to ensure that—

(I) the term ''no detectable emissions'' is defined to mean an instrument reading of less than 50 parts per million above background concentrations; and

(II) the term ''leak'' is defined to mean an instrument reading of great-

er than or equal to 50 parts per million above background concentrations.

(F) NATURAL-GAS FIRED STEAM BOILERS.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule revising subpart Db of part 60 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that boilers or heaters located at an affected covered facility regulated under that subpart may only burn gaseous fuels, not solid fuels or liquid fuels.

(G) MONITORING.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule revising subparts DDD, NNN, RRR, and other relevant subparts of part 60 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act)—

(i) to require continuous emissions monitoring of nitrogen oxides, sulfur dioxide, carbon monoxide, and filterable particulate matter for all combustion devices except for non-enclosed flares, including during startups, shutdowns, and malfunctions

of the facilities regulated by those subparts;

(ii) to require—

(I) accurate and continuous recordkeeping when continuous monitoring is required under clause (i); and

(II) the records required under subclause (I) to be made available to the public; and

(iii) to require fenceline monitoring under section 63.658 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), for nitrogen oxides, sulfur dioxide, carbon monoxide, filterable and condensable particulate matter, and all other relevant hazardous air pollutants.

(3) NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS IMPLEMENTATION IMPROVEMENTS.—

(A) EQUIPMENT LEAKS OF BENZENE.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule modifying section 61.112

of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act) that strikes subsection (c).

(B) BENZENE WASTE OPERATIONS.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule modifying subpart FF of part 61 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that—

(i) the term ''no detectable emissions'' is defined to mean an instrument reading of less than 50 parts per million above background concentrations; and

(ii) the term ''leak'' is defined to mean an instrument reading of greater than or equal to 50 parts per million above background concentrations.

(C) MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY STANDARDS FOR COVERED FACILITIES.—Not later than 3 years after the date of enactment of this Act, the Administrator shall—

(i) promulgate a final rule modifying subpart YY of part 63 of title 40, Code of

Federal Regulations (as in effect on the date of enactment of this Act), to ensure that—

(I) the generic maximum achievable control technology standards described in that subpart—

(aa) require no detectable emissions of hazardous air pollutants, unless the Administrator—

(AA) determines that the maximum degree of reduction in emissions of hazardous air pollutants achievable pursuant to section 112(d)(2) of the Clean Air Act (42 U.S.C. 7412(d)(2)) justifies higher limits; and

(BB) publishes the determination under subitem (AA) and the proposed higher limits in a rulemaking;

(bb) ensure an ample margin of safety to protect public health and prevent an adverse environmental effect; and

(cc) prevent adverse cumulative effects to fetal health, the health of children, and the health of vulnerable subpopulations; and

(II) the term ''no detectable emissions'', as required under subclause (I)(aa), is defined to mean an instrument reading of less than 50 parts per million above background concentrations; and

(ii) in promulgating the final rule required in clause (i)(I), consider—

(I) the effects and risks of exposure from multiple sources of hazardous air pollutants under the subpart modified under that clause; and

(II) the best available science, including science provided by the National Academies of Science.

(e) CLEAN WATER.—

(1) REVISED EFFLUENT LIMITATION GUIDELINES FOR THE ORGANIC CHEMICAL, PLASTICS, AND SYNTHETIC FIBERS INDUSTRIAL CATEGORY.—

(A) BAT AND NSPS STANDARDS FOR PLASTIC POLYMER PRODUCTION.—Not later than 3

years after the date of enactment of this Act, the Administrator shall promulgate a final rule—

(i) that ensures that the best available technology limitations described in part 414 of title 40, Code of Federal Regulations (as modified under clause (ii)) applies to covered facilities that produce fewer than 5,000,001 pounds of covered products per year;

(ii) modifying part 414 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that the best available technology and new source performance standard requirements under that part reflect updated best available technology and best available demonstrated control technology for all pollutants discharged by covered facilities that produce covered products, including pollutants of concern that are not regulated on the date of enactment of this Act; and

(iii) modifying sections 414.91(b), 414.101(b), and 414.111(b) of title 40,

Code of Federal Regulations (as in effect on the date of enactment of this Act) to ensure that—

(I) for new source performance standards for applicable covered facilities producing covered products, the maximum effluent limit for any 1 day and for any monthly average for the priority pollutants described in appendix A to part 423 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), is 0 milligrams per liter unless the Administrator—

(aa) determines that higher limits are justified using best available demonstrated control technology; and

(bb) publishes the determination under item (aa) and the proposed higher limits in a rulemaking; and

(II) for best available technology and new source performance standards, the maximum effluent limit for

any 1 day and for any monthly average for total plastic pellets and other plastic material is 0 milligrams per liter.

(B) EFFLUENT LIMITATIONS FOR WASTEWATER, SPILLS, AND RUNOFF FROM PLASTIC POLYMER PRODUCTION FACILITIES, PLASTIC MOLDING AND FORMING FACILITIES, AND OTHER POINT SOURCES ASSOCIATED WITH THE TRANSPORT AND PACKAGING OF PLASTIC PELLETS OR OTHER PRE-PRODUCTION PLASTIC MATERIALS.—Not later than 60 days after the date of enactment of this Act, the Administrator shall promulgate a final rule to ensure that—

(i) the discharge of plastic pellets or other pre-production plastic materials (including discharge into wastewater and other runoff) from facilities regulated under part 414 or 463 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), is prohibited;

(ii) the discharge of plastic pellets or other pre-production plastic materials (in-

cluding discharge into wastewater and other runoff) from a point source (as defined in section 502 of the Federal Water Pollution Control Act (33 U.S.C. 1362)) that makes, uses, packages, or transports those plastic pellets and other pre-production plastic materials is prohibited; and

(iii) the requirements under clauses (i) and (ii) are reflected in—

(I) all wastewater, stormwater, and other permits issued by the Administrator and State-delegated programs under section 402 of the Federal Water Pollution Control Act (33 U.S.C. 1342) to facilities and other point sources (as defined in section 502 of that Act (33 U.S.C. 1362)) that make, use, package, or transport plastic pellets or other pre-production plastic materials, as determined by the Administrator, in addition to other applicable limits and standards; and

(II) all standards of performance promulgated under section 312(p) of

the Federal Water Pollution Control Act (33 U.S.C. 1322(p)) that are applicable to point sources (as defined in section 502 of that Act (33 U.S.C. 1362)) that make, use, package, or transport plastic pellets or other pre-production plastic materials, as determined by the Administrator.

(2) REVISED EFFLUENT LIMITATIONS GUIDELINES FOR ETHYLENE AND PROPYLENE PRODUCTION.—

(A) BAT AND NSPS STANDARDS.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule—

(i) modifying sections 419.23, 419.26, 419.33, and 419.36 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that the best available technology and new source performance standards reflect updated best available technology and best available demonstrated control technology for all pollutants discharged by covered fa-

cilities producing ethylene or propylene; and

(ii) modifying sections 419.26(a) and 419.36(a) of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that the new source performance standards for any 1 day and for average of daily values for 30 consecutive days for the priority pollutants described in appendix A to part 423 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), is 0 milligrams per liter unless the Administrator—

(I) determines that higher limits are necessary based on the best available demonstrated control technology; and

(II) the Administrator publishes the determination under item (aa) and the proposed higher limits in a rulemaking.

(B) RUNOFF LIMITATIONS FOR ETHYLENE AND PROPYLENE PRODUCTION.—Not later than 3 years after the date of enactment of this Act,

the Administrator shall promulgate a final rule modifying sections 419.26(e) and 419.36(e) of title 40, Code of Federal Regulations (as in effect on the date of enactment of this Act), to ensure that runoff limitations that reflect best available demonstrated control technology are included.

(f) ENVIRONMENTAL JUSTICE REQUIREMENTS FOR COVERED FACILITY PERMITS.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of this Act, the Administrator shall promulgate a final rule to ensure that—

(A) any proposed permit to be issued by the Administrator or by a State agency delegated authority under the Clean Air Act (42 U.S.C. 7401 et seq.) or the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) with respect to a covered facility is accompanied by an environmental justice assessment that—

(i) assesses the direct and cumulative economic, environmental, and public health impacts of the proposed permit on frontline communities; and

(ii) proposes changes or alterations to the proposed permit that would, to the

maximum extent practicable, eliminate or mitigate the impacts described in clause (i);

(B) each proposed permit and environmental justice assessment described in subparagraph (A) is delivered to applicable frontline communities at the beginning of the public comment period for the proposed permit, which shall include notification—

(i) through direct means;

(ii) through publications likely to be obtained by residents of the frontline community, including non-English language publications; and

(iii) in the form of a public hearing in the frontline community—

(I) for which public notice is provided—

(aa) not less than 60 days before the date on which the public hearing is to be held; and

(bb) using the means described in clauses (i) and (ii); and

(II) for which translation services (as defined in section 12001 of the Solid Waste Disposal Act) are provided; and

(III) that is accessible through live-streaming or alternative video streaming services for which translation services (as so defined) are provided;

(C) the Administrator or a State agency delegated authority under the Clean Air Act (42 U.S.C. 7401 et seq.) or the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as applicable, shall not approve a proposed permit described in subparagraph (A) unless—

(i) changes or alterations have been incorporated into the proposed permit that, to the maximum extent practicable, eliminate or mitigate the environmental justice impacts described in subparagraph (A)(i); and

(ii) the changes or alterations described in clause (i) have been developed with meaningful input from residents or representatives of the frontline community

in which the covered facility to which the proposed permit would apply is located or seeks to locate;

(D) the Administrator or a State agency delegated authority under the Clean Air Act (42 U.S.C. 7401 et seq.) or the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as applicable, shall not approve a proposed permit described in subparagraph (A) during the 45-day period beginning on the date on which a public hearing described in subparagraph (B)(iii) is held for the proposed permit; and

(E) the approval of a proposed permit described in subparagraph (A) is conditioned on the covered facility providing comprehensive fenceline monitoring and response strategies that fully protect public health and safety and the environment in frontline communities.

(2) REQUIREMENT.—The Administrator shall develop the final rule required under paragraph (1) with input from—

(A) residents of frontline communities; and

(B) representatives of frontline communities.

(g) EXTENDED PRODUCER RESPONSIBILITY FOR INTERNATIONAL PLASTIC EXPORTS.—The temporary pause on the export of covered products under subsection (b)(4) shall remain in place until the Secretary of Commerce promulgates a final rule that—

(1) requires the tracking of covered products from sale to disposal;

(2) prohibits the export of covered products to purchasers that convert those plastics into single-use plastics or energy;

(3) requires the Secretary of Commerce, not less frequently than once every 2 years and in consultation with the Administrator and the Secretary of Health and Human Services, to publish a report measuring and evaluating the environmental and environmental justice impacts of exporting covered products from sale to disposal; and

(4) establishes enforceable mechanisms for sellers or purchasers of covered products to mitigate the environmental and environmental justice impacts of those covered products from sale to disposal.

○

OHM Advancing Communities®

City of Ypsilanti

SAW Grant Project No. 1445-01

August 17, 2021

City of Ypsilanti
Pride. Diversity. Heritage.

Stormwater, Asset Management, Wastewater (SAW) Program

Objectives of SAW Program:

- ***To help municipalities develop, update, and improve asset management plans (AMP).***
- ***To be able to inform their stake holders on the current and future needs of the systems.***
- ***For wastewater and stormwater systems.***

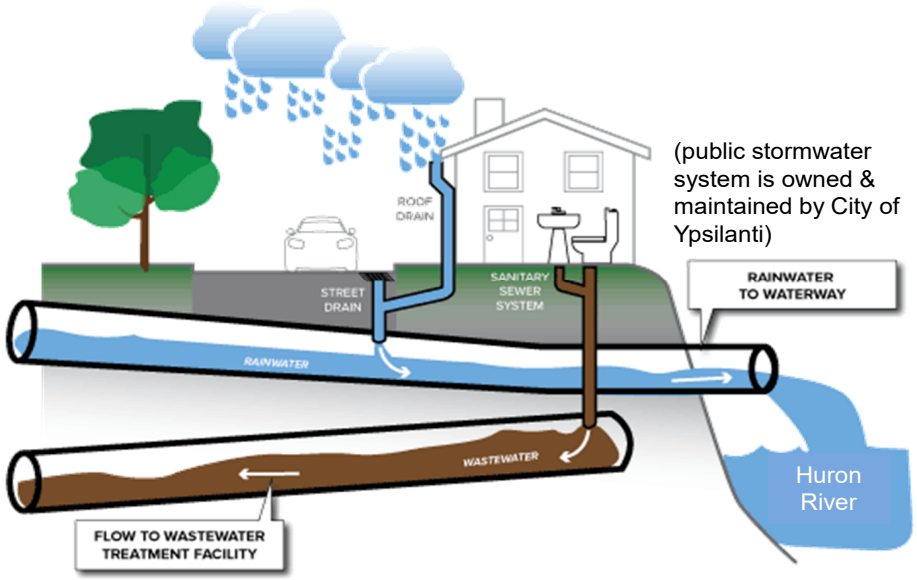
The mission of City of Ypsilanti Public Services Department is to provide cost effective, high quality municipal services, and to operate and maintain public infrastructure in a way that respects the environment and the ability of government to preserve these assets for future generations.

- SAW Program was established by the Michigan Department of Environment, Great Lakes, and Energy (EGLE, previously MDEQ) in 2013.
- OHM assisted the City of Ypsilanti to apply for a SAW Grant to prepare a Stormwater Asset Management Plan (AMP) in 2013.
- The SAW application was approved in 2018 for a total of $418,098, including a 10% local match. The City had until May 2021 to complete the grant requirements.
- All SAW Grant recipients must submit a summary of the AMP along with identification of the major assets of the plan to EGLE.
- A copy of the AMP must be made available to the public for at least 15 years.

Stormwater Asset Management Plan

The AMP includes:

- Inventory of stormwater assets
- Condition Assessment (including inspection)
- Level of Service
- Criticality Analysis
- Capital Improvement Plan (CIP)
- Computerized Maintenance Management System (CMMS)



(public stormwater system is owned & maintained by City of Ypsilanti)

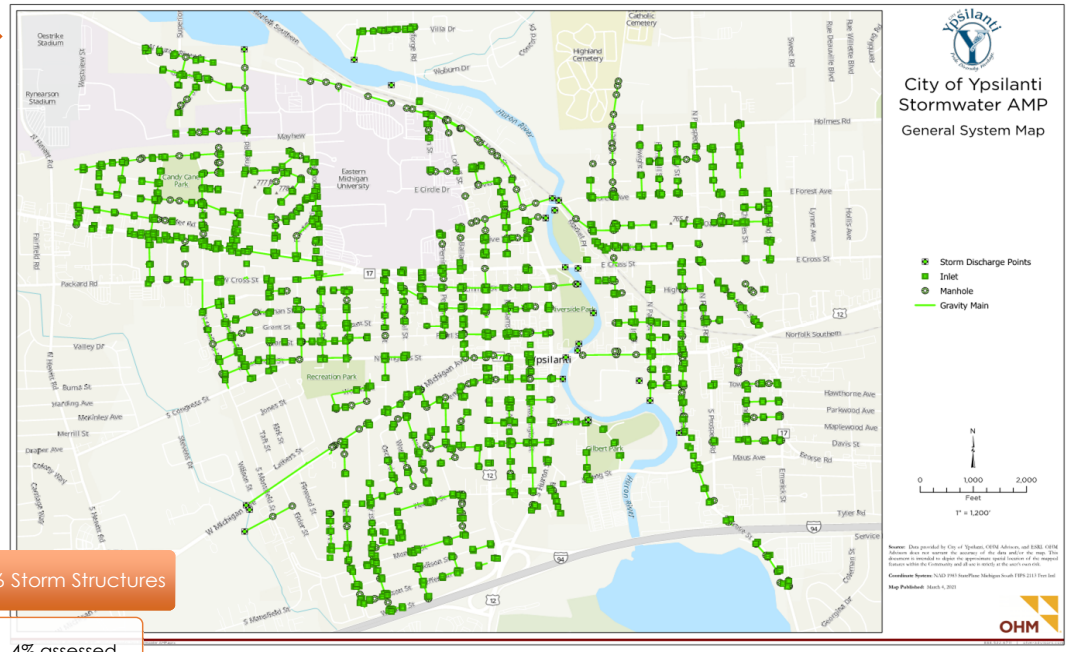
(wastewater system is owned & maintained by YCUA)

OHM Advisors

Inventory

Mapped Stormwater System Assets:

- 2,046 Structures
- 36 Miles of Sewer
- 22 Outfalls



36 Miles of Storm Sewers

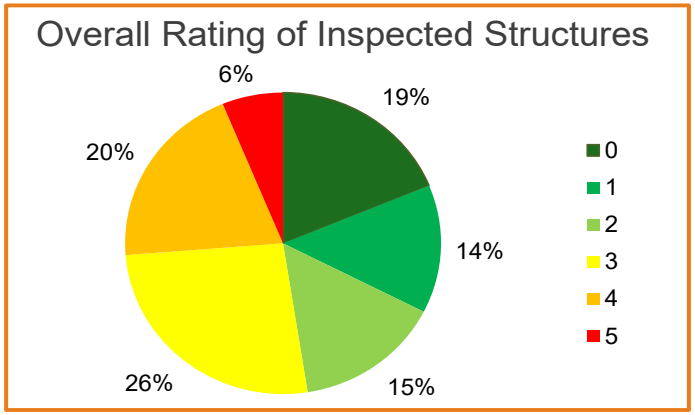
8% assessed

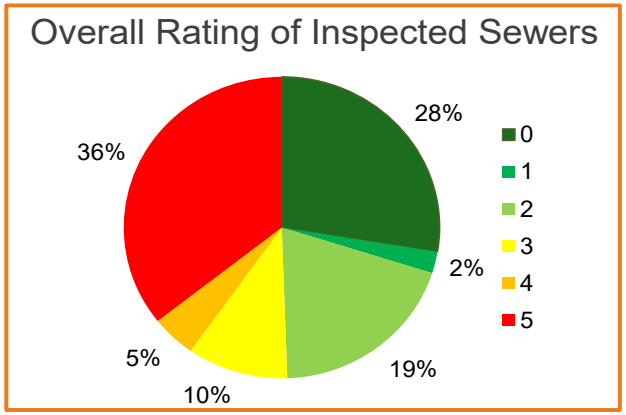
2,046 Storm Structures

4% assessed

Condition Assessment

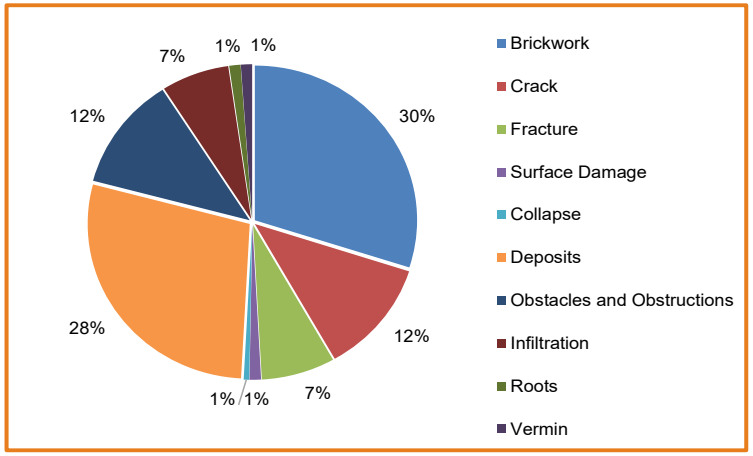
Under the SAW Grant, the City inspected 80 storm structures (4% of total structures) and 3-miles of storm sewer (8% of total sewer). A rating of 0 is “excellent condition” and a rating of 5 is considered “poor condition and/or failed”.





OHM Advisors

Defects of the Storm Structures



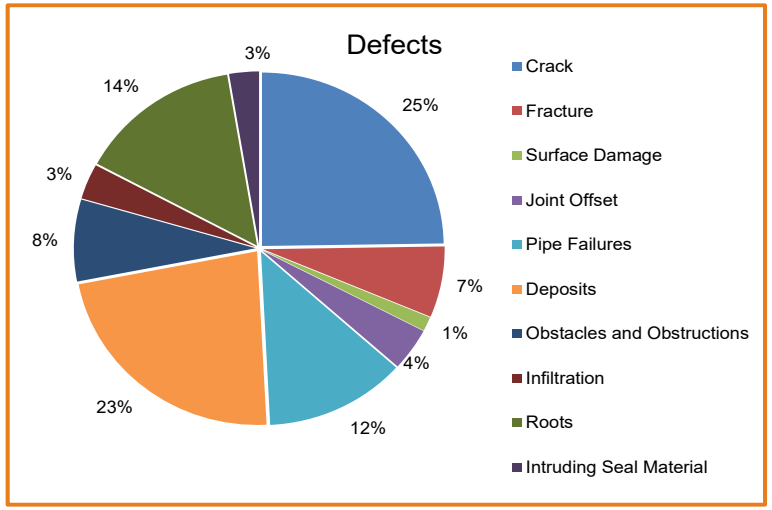
Structure Collapsed

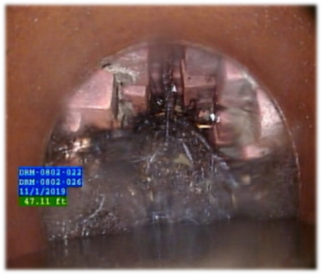
Wall Section Failure

Structure defects were predominantly related to brickwork failure (30%) and deposits (28%).

OHM Advisors

Defects of the Storm Sewers





Root Ball

Pipe Failure

Storm sewer defects were predominantly Cracks (25%) and Deposits (23%)

OHM Advisors

Level of Service

The City adopted a level of service criteria that is in line with its mission statement. These criteria provide the guidelines to manage the storm water asset infrastructure.

The mission of City of Ypsilanti Public Services Department is to provide cost effective, high quality municipal services, and to operate and maintain public infrastructure in a way that respects the environment and the ability of government to preserve these assets for future generations.

Key Service Criteria	Performance Indicator	Target Level of Service
Asset Condition Assessment	Annual MACP* and PACP** inspections	• MACP inspection and cleaning of 5% of manholes & catch basins per year. • PACP inspection and cleaning of 2% of sewers per year.
GIS Asset Inventory	Tracking asset conditions in the GIS geodatabase	• Maintain a continuously updated GIS geodatabase
Service Delivery	Response to stormwater complaints	• Respond to complaints efficiently
Cost Control	Provide cost effective service to minimize rate increases	• Proactively inspect and maintain infrastructure to maximize useful life.
Environmental	Provide storm water Best Management Practices that are "green" and environmentally friendly	• Consider green infrastructure for storm water projects.

Criticality Assessment

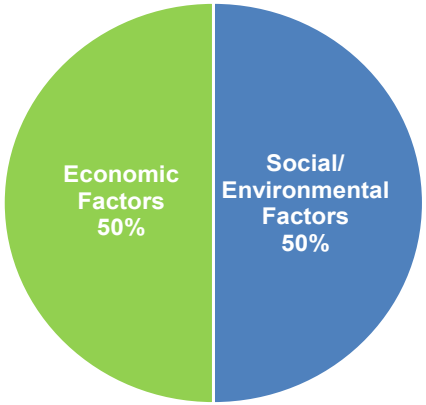
Critical Factors Considered for Consequence of Failure Include:

- Asset Diameter
- Proximity to Top Users
- Location of Asset
- Network Position

Critical Users/Locations:

- Hospitals/Health Facilities
- Educational Institutions
- Downtown Areas
- MI Dept. of Health and Human Services (DHHS)

Assets are assigned a criticality rating based on their potential risk. The goal is to identify the consequence and probability of failure of an asset to perform its function.



OHM Advisors

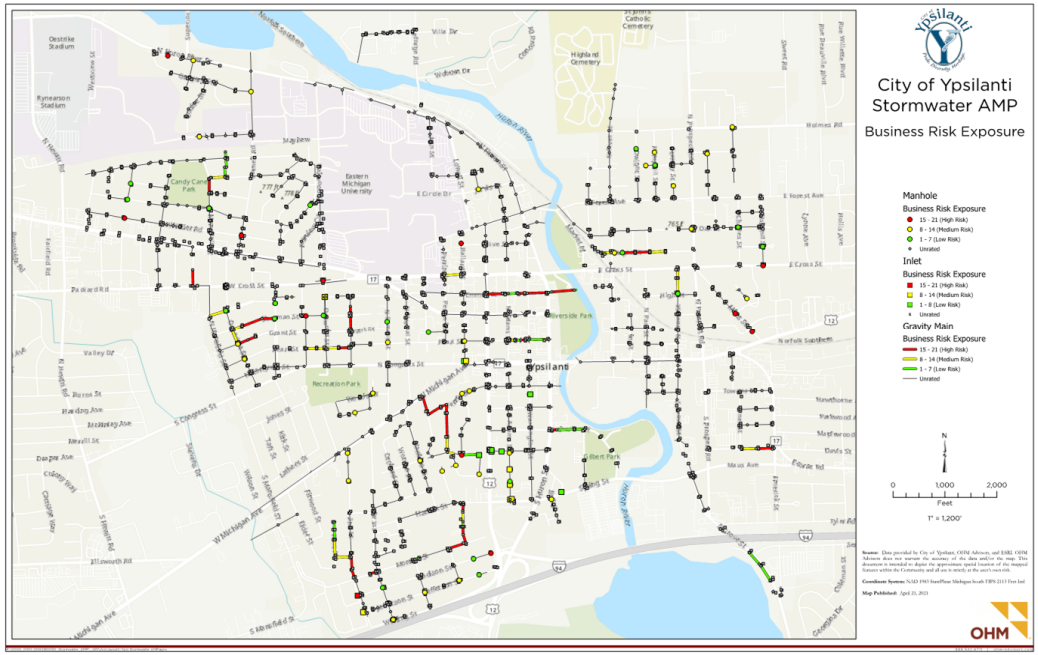
Business Risk Exposure (BRE)

Probability of Failure × Consequence of Failure = Business Risk Exposure

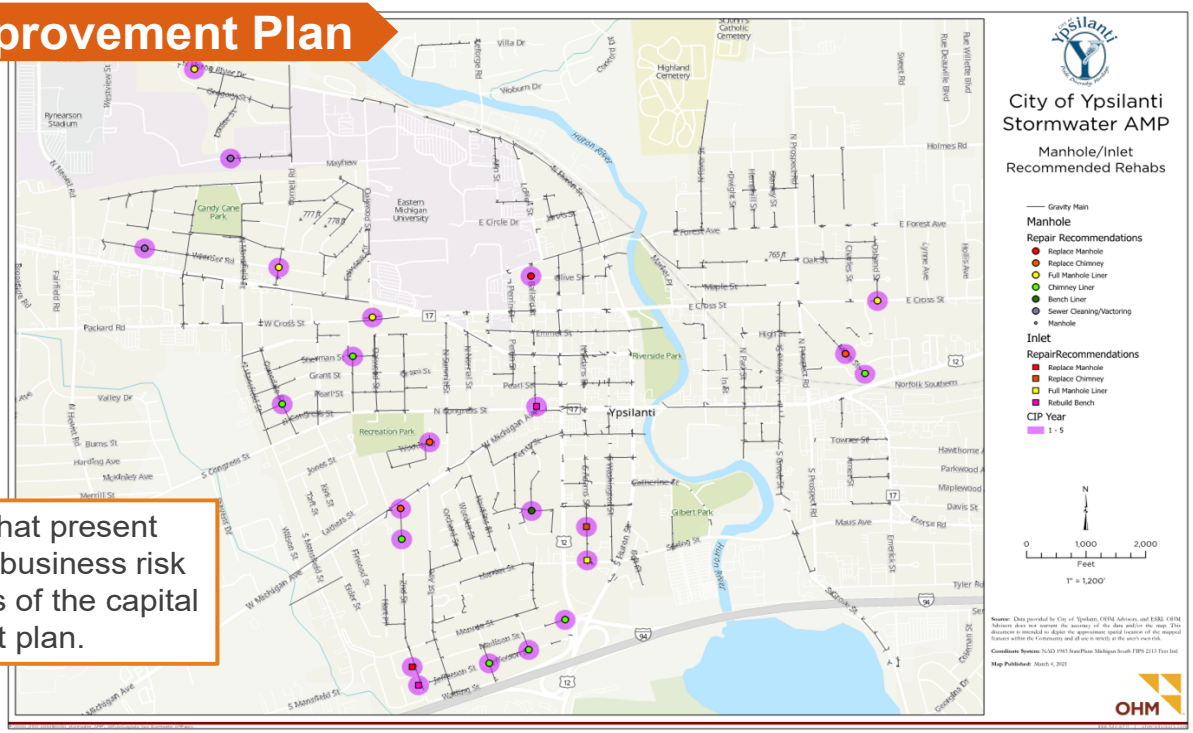
Consequence of Failure \ Probability of Failure	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

- Low Priority
- Medium Priority
- High Priority

BRE is a tool used in an AMP to determine where a utility should allocate resources.

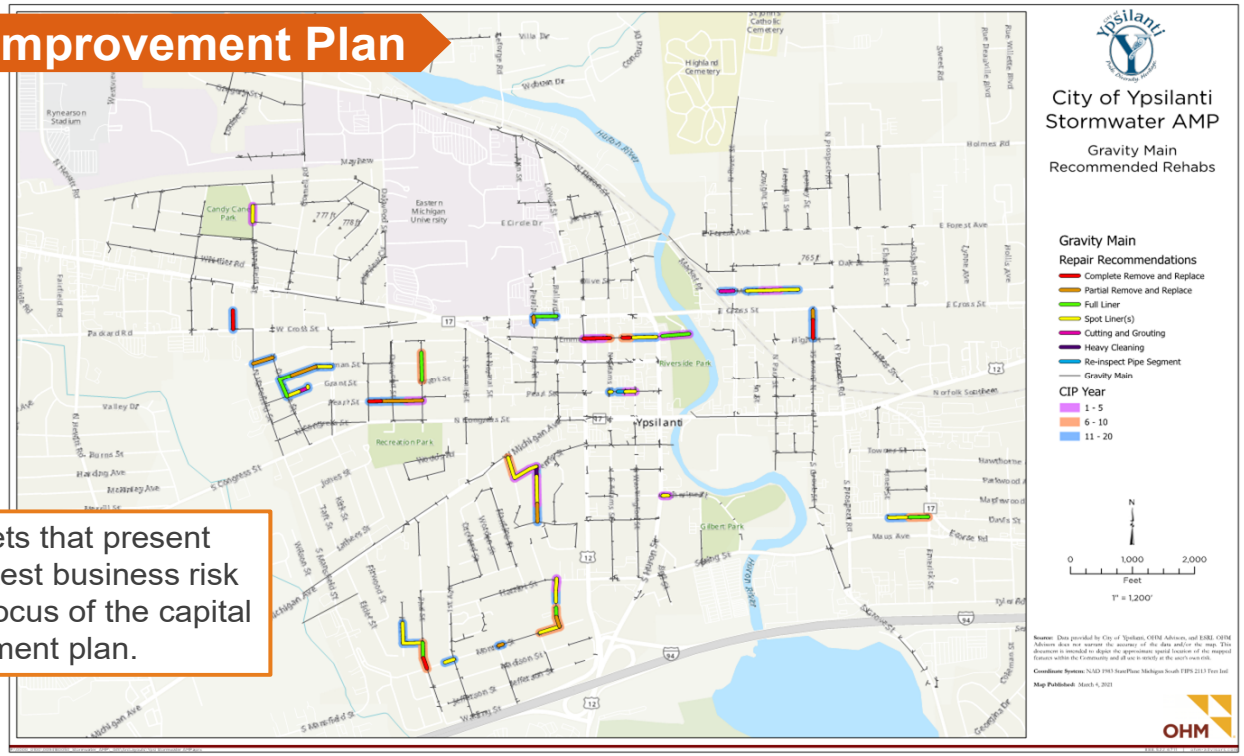


Capital Improvement Plan



The assets that present the greatest business risk are the focus of the capital improvement plan.

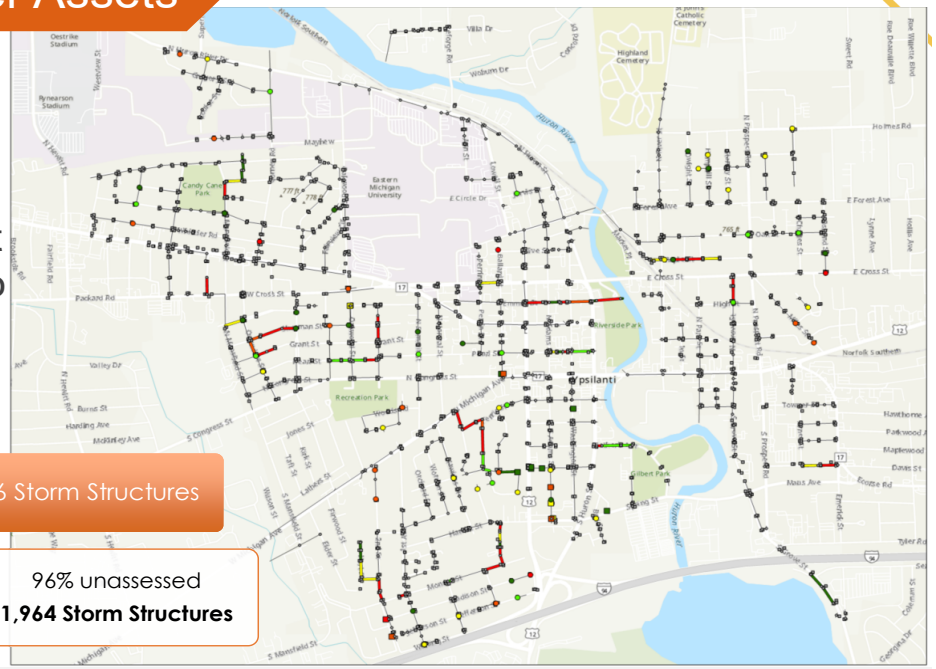
Capital Improvement Plan



The assets that present the greatest business risk are the focus of the capital improvement plan.

Uninspected Stormwater Assets

All the grey assets in the map have not been inspected. It is recommended these are put on an inspection schedule to protect the assets from possible failures.



36 Miles of Storm Sewers

92% unassessed
33-miles of Sewer

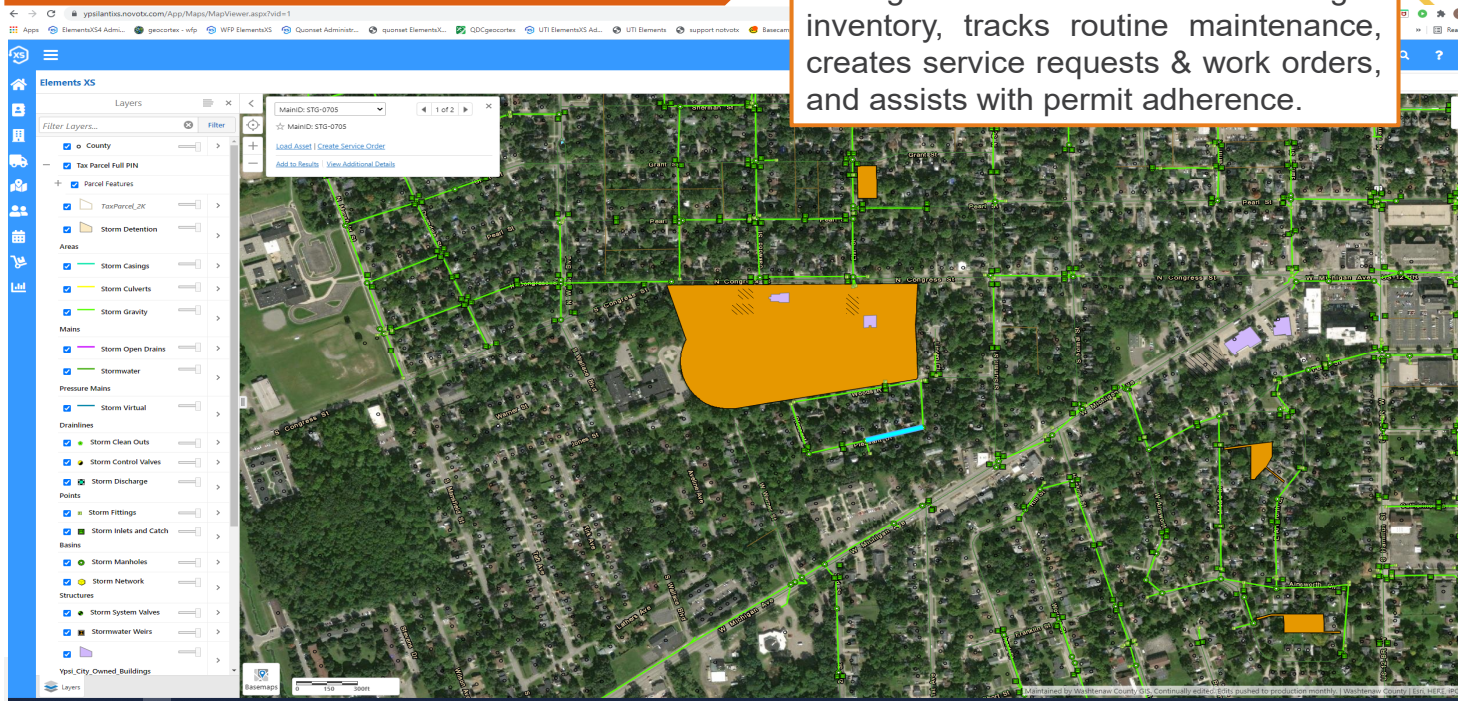
2,046 Storm Structures

96% unassessed
1,964 Storm Structures

OHM Advisors

ElementsXS (CMMS Software)

ElementsXS is a web-based asset management software that manages inventory, tracks routine maintenance, creates service requests & work orders, and assists with permit adherence.



Recent Flooding due to Large Rainfall Events

- The industry standard for design of a storm sewer system is for a 10-year storm event.
- Rain events larger than a 10-year storm will cause some surface flooding because the storm system was not designed for the rainfall intensity and pipes will take longer to take in and convey the rainwater.
- Low lying land will flood first. A proper stormwater management system on the premises will reduce the chances of buildings flooding due to rainwater. The City Ordinance refers to the Washtenaw County Water Resources Commissioner Rules and Guidelines for Stormwater Management Systems.
- Large rain events can overwhelm wastewater systems due to inflow of stormwater into the sanitary system. Buildings with wastewater services are at risk for backups if there is no backflow preventer valve installed on sanitary service to the building.

Figure: Huron Heights and Huron Ridge Apartments

Solutions to Mitigate Surface Flooding

- Perform periodic cleaning and inspections of the storm system assets.
- Make necessary repairs of the assets and completing CIP projects on schedule.
- Update the GIS system with the latest inspection results/repair work.
- Use CMMS program to manage assets by tracking inventory, creating service requests, and creating work orders.
- Provide stormwater storage like detention/retention facilities.

*Information presented on this slide is not referencing basement flooding due to sanitary sewer backups during large rain events.

Figure: Clogged Inlet

MDOT Michigan Department of Transportation

Together... Better Roads, Cleaner Streams

Storm Water Management MDOT Michigan Department of Transportation

Used motor oil can be recycled.

Never dump it on the ground or into a storm drain!

Use kitty litter to soak up oil leaks and spills. Then sweep it, double bag it, and put it in the trash.

Never hose down!

Use the least toxic products and follow directions carefully.

Never apply garden products when rain is on the way!

At Home, School, and on the Road...

Kids can make a difference!

Please share these cleaner streams tips with your parents and help them however you can!

Our Cleaner Streams Mascot *DOT the Drop* Reminds Us...

ONLY RAIN IN THE DRAIN!

www.michigan.gov/stormwatermgt

Carpool, take the bus or ride a bike.

When it rains, air pollution turn into water pollution!

Scoop pet waste into a bag and put it in the trash.

Pet waste left on the lawn or pavement ends up in the water - yuck!

Sweep sidewalks.

Don't hose trash, dirt, or chemicals into the street!

MDOT
Michigan Department of Transportation

Together... Better Roads, Cleaner Streams

Storm Water Management
MDOT
Michigan Department of Transportation

Ten Steps to Comply with MDOT SESC

1. Preserve vegetation near all waterways
2. Phase work to minimize exposed soil
3. Divert upland runoff around exposed soil
4. Seed/mulch/cover disturbed areas within five days, or...
5. If within 150 feet of a lake, stream, or wetland, seed/mulch/cover within 24 hours
6. Use sediment barriers and basins to trap soil runoff
7. Protect culvert, ditch, and catch basin inlets and outlets
8. Prevent tracking of sediment onto pavement
9. Inspect and maintain erosion and sediment control Best Management Practices (BMPs)
10. Properly manage trash, materials, and supplies

MDOT Storm Water Management Activities

- Storm Water Educational Web Site: www.michigan.gov/stormwatermgt
- MDOT Staff and Contractor Training: General Storm Water, Pesticide, and Soil Erosion and Sedimentation Control (SESC) Certification
- Public Education: Tap-in/Discharge Permit, Brochure, Litter Bags
- MDOT Drainage Manual
- MDOT SESC Manual and Quality Assurance Program
- Adopt-A-Highway Litter Clean-up Program
- Storm Water Outfall Mapping and Labeling
- Illicit Discharge Investigation and Correction
- MDOT Facility Pollution Incidence Prevention Plans
- Total Maximum Daily Load (TMDL) Compliance
- Early Coordination with Government Agencies and Watershed Groups
- Pollution Prevention: Street Sweeping, Salt Truck Calibration, Catch Basin Cleaning, Ditch Clean Out

How MDOT is Helping Protect Michigan's Water Quality

1. **Education and Outreach**
   Educating the job-related and traveling public on storm water issues, including watershed stewardship, pollution prevention, and illicit discharge reporting.
2. **Public Involvement/Participation**
   Encouraging the job-related and traveling public to review and comment on MDOT's storm water management program. Cooperating with local planning groups.
3. **Illicit Discharge Elimination Program**
   Identifying locations where storm water discharges to waters of the state (outfalls). Investigating outfalls for pollutants (illicit discharges). Reducing the discharge of pollutants to protect Michigan's water quality.
4. **Post-Construction Storm Water Management**
   Incorporating storm water controls into designs to minimize water quality and quantity impacts on waters of the state.
5. **Construction Storm Water Runoff Control**
   Controlling storm water discharge from construction activity involving land disturbance of greater than, or equal to one acre.
6. **Pollution Prevention/Good Housekeeping**
   Preventing or reducing pollutant runoff from operational activities through proper materials handling and storage, disposal and recycling of waste materials, and staff training on environmental stewardship.

Make the Connection!
Storm Drains empty into Waterways!
STORMWATER matters

Storm Drains are NOT for Dumping!

Have you ever wondered what happens to the water flowing down a storm drain after a storm? Stormwater, the runoff water after it rains or snows, flows from parking lots and streets into storm drains so that the pavement won't be flooded. Underground pipes then channel the stormwater directly to the nearest waterway, usually with little or no treatment. So whatever flows down a storm drain comes out in a nearby waterway, such as a wetland, stream, pond, or the ocean.

Please help keep our local waters clean:

- Never dump anything down storm drains – this includes litter, sand, leaves, pet waste, motor oil, or paint.
- Clear sand, leaves, litter, debris, and snow away from storm drains.
- Support municipal efforts to conduct regular street sweeping and catch basin cleaning.
- Participate in a neighborhood cleanup or storm drain marking project.

STORMWATER
matters
Spread the word:
Stormwater Matters!

DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
MONTGOMERY COUNTY • MARYLAND

Storm Drain Art Contest 2018

Did you know that most storm drains in Montgomery County lead directly to our streams?...***No?*** You are not alone.

Storm drains are designed to capture rain that falls on streets, parking lots and sidewalks. Unfortunately, some people treat storm drains as trash cans because of the misconception that the water will eventually be cleaned.

The truth is that most of the trash, pollution, chemicals and yard waste that goes into our storm drains enters our local streams untreated!

What can we do about this problem? The answer is educate – spread the word to stop litter and other pollution from entering our storm drains and eventually ending up in our waterways!

Art for the Environment
The Storm Drain Art Contest seeks to use art to educate the public about the connection between our storm drains, streams and the Bay. The winners will see their art painted on storm drains in the County during Earth Month 2018!

We're looking for artists, of all ages, to submit original pieces of art focused on environmental themes such as water quality, storm drains, pollution and our streams.

The art will be used to paint storm drains in the County. View pictures of storm drain art currently installed at the Aspen Hill Library and the Kensington Park Library. The photo album also includes images of how storm drain art is installed.

Storm Drain Art at the Aspen Hill Library

Rules and Restrictions

Prize:

Six (6) winners will be selected from all valid entries. They will have their storm drain art installed on storm drains or inlets in the Wheaton Urban District on/or around April 2018 (Earth Month).

The timing and the location of the storm drain art will be the sole discretion of the Montgomery County government. The six (6) winners will be chosen based on the guidelines outlined in “What to Enter” and "Judging" sections below.

Deadline for Submissions:

All entries must be received by 4:00pm EST on February 16th, 2018.

Judging:

All entries submitted into the Storm Drain Art Contest will first be reviewed for their validity at meeting the guidelines, rules and restrictions of the contest. Those meeting the minimum guidelines will be eligible to move onto the next round of judging.

Submitted entries must be entered into one of the five (5) categories. The artwork will be judged within the selected category first. The categories are:

- Celebrate Wheaton’s Cultural Diversity
- Environment and Youth (For ages 16 and under only)
- Fight litter
- Water
- Wheaton area specific

Valid entries will be presented to a panel of judges, including Montgomery County Department of Environmental Protection staff and local County nonprofits. The entries will be scored based on their ability to meet the “Guidelines for Art” outlined below and the selected category. For each entry, the scores from the judges will be added together. The total scores will then be ranked.

There will be one winner for each of the five (5) categories. All remaining valid entries will then be entered into the judging for the People's Choice Public Voting.

People’s Choice - Public Voting:
All valid entries that did not win a category will be voted on by the public on the Department of Environmental Facebook page (Facebook.com/@mygreenmontgomery).

The entries will be posted on the DEP Facebook page on March 10th, 2018. The artwork to receive the most “likes” by 4:00pm EDT on March 16th, 2018 will become the winner of the “People’s Choice” award.

The winners will be announced spring 2018. DEP will notify the winners via the contact information provided at the time of entry. Winners will be invited to the installation of their art, but the timing and location of the art installation are the full discretion of Montgomery County.

What to Enter:

To enter the contest, submit:

- An original work of art in .jpg, .png or .pdf format. A maximum of two (2) entries are allowed per individual.
- Signed Entry and Release Forms stating the originality of the art, permission to enter the contest and address in Montgomery County, MD. For those under 18, the parental consent portion of the release must be completed by a legal guardian.

Entries must be submitted by email to DEP.contests@montgomerycountymd.gov. Each email must contain the signed Entry and Release Forms and the original work of art. **The maximum size of the total attachments in the email should be less than 6MB.** Larger emails will bounce back and not be received by the Montgomery County Department of Environmental Protection. If your email was sent successfully, you will receive an automatic reply. If you have not received an automatic reply, call 240-777-7778 to confirm receipt.

For those submitting two (2) entries, **each entry must be sent in a separate email** and have their own signed Entry and Release Forms included in the email.
All entries must be submitted for one (1) category:

- Celebrate Wheaton's Cultural Diversity
- Environment and Youth (For ages 16 and under only)
- Fight litter
- Water
- Wheaton area specific

Guidelines for Art:

- The art must be original. Confirmation of this must be signed in the release form.
- A maximum of ten (10) colors can be used on each art design.
- Entries must be digital format, either .jpg, .png or .pdf.
- The art must contain at least one (1) slogan or tagline.

The art entries will be judged on whether the art:

- **Educates about a water quality issue related to streams or storm drains or other environmental topic.** Examples include: litter, pet waste, oil, chemicals, yard waste, or how the storm drain leads to a nearby stream or other waterway.

- **Is creative, colorful and original**. We want the designs to be eye-catching. If people don't see it, then it won't be able to serve as an educational tool.

- **Is easy to re-create.** A complicated design might be creatively interesting, but if County staff or volunteers can't replicate it easily, it won't work.

- **Has a coherent, easy to understand message.** Don't try to fit every water quality or environmental topic into your art. For the public to easily understand, stick to one theme.

- **Has a slogan or tagline.** Integrate at least one (1) slogan or tagline into your design. It should be connected to the theme, and large enough to be read by passerbys. The slogan does not have to be in English. Examples from the Aspen Hill Library include, “Mi Agua es Tu Agua”, “Drains to Rock Creek” and “Protect Rock Creek: Scoop the Poop”.

- **Is submitted as a high resolution .jpg, .png or .pdf file.** Clarity of the art will be used in the judging portion. The art design does not have to be made on a computer, only submitted as a .jpg, .png or .pdf file. For instance, the art can be hand drawn and then a picture of the drawing as a .jpg is submitted to the contest. As long as the clarity and resolution of the image is high.

- **The artwork is appropriate for the selected category.** There are five (5) categories to choose from:
    - Celebrate Wheaton’s Cultural Diversity
    - Environment and Youth (For ages 16 and under only)
    - Fight litter
    - Water
    - Wheaton area specific

- **Meets all the guidelines expressed in the Rules and Restrictions.**

How to Enter:

Entries must be submitted by email to DEP.contests@montgomerycountymd.gov. We do not accept art submitted through the mail.

Each email must contain a .jpg, .png or .pdf of the original work of art with signed Entry and Release Forms. **The maximum size of the total attachments in the email should be less than 6MB.** Larger emails will bounce back and not be received by the Montgomery County Department of Environmental Protection. If your email was sent successfully, you will receive an automatic reply. If you have not received an automatic reply, call 240-777-7778 to confirm receipt.

For those submitting two (2) entries, each entry must be sent in a separate email and have their own signed Entry and Release Forms included in the email.
For language assistance or technological support, contact 240-777-7778.

Participants retain the rights to their art; however, by entering the contest, you grant the Montgomery County Department of Environmental Protection (and those authorized by the Montgomery County Department of Environmental Protection) a royalty-free, perpetual, non-exclusive license to publicly display, distribute, reproduce, and create derivative works of the entries, in whole or in part, in any media now existing or later developed, for any Montgomery County Department of Environmental Protection purpose, including, but not limited to, advertising and promotion of the Department on its website, and Montgomery County Department of Environmental Protection publications. Any art reproduced will include a credit as feasible. The Montgomery County Department of Environmental Protection will not be required to pay any additional consideration or seek any additional approval in connection with such uses.

Entry deadline:
All entries must be received by 4:00pm EST, February 16th, 2018.

Terms and Conditions:

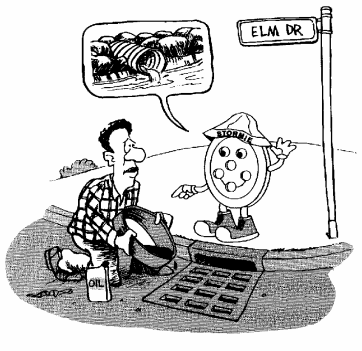
1. The Montgomery County Department of Environmental Protection (DEP) Storm Drain Art Contest begins 12:01am EST, January 15th, 2018 and ends 4:00pm EST, February 16th, 2018. By submitting an entry, each contestant agrees to the rules of the contest. Entries by those under 18 must include a parent or legal guardian signature.
2. Contest is only open to residents of Montgomery County, MD.
3. There is no entry fee and no purchase necessary to enter this competition. Offer is void where prohibited.
4. Montgomery County does not accept responsibility for entries not received for whatever reason.
5. Art/slogans/messages that violate or infringe upon any group or individual rights, including but not limited to copyright, are not eligible. Designs that contain obscene, defamatory, sexually explicit or otherwise objectionable or inappropriate content will be disqualified at Montgomery County's sole discretion.
6. Montgomery County reserves the right to cancel or amend the competition and these terms and conditions without notice in the event of a catastrophe, war, civil or military disturbance, act of God or any actual or anticipated breach of any applicable law or regulation or any other event outside of the promoter's control. Any changes to the competition will be notified to entrants as soon as possible by the promoter.
7. Montgomery County does not guarantee the length of time art will be displayed publicly. Art can be removed at the discretion of Montgomery County.
8. No cash alternative to the prizes will be offered.
9. The winner will be notified by email and/or phone based on the information submitted in the signed release form.
10. Employees of Montgomery County, MD government, contest judges or family of contest judges are exempt from participation.
11. By entering this competition, an entrant is indicating his/her agreement to be bound by these terms and conditions and the rules and restrictions.
12. The winner agrees to the use of his/her name and image in any publicity material. Any personal data relating to the winner or any other entrants will not be disclosed to a third party.
13. This promotion is in no way sponsored, endorsed or administered by, or associated with, Facebook, or any other Social Network. You are providing your information to Montgomery County and not to any other party.

Who May Enter:
Anyone who is a resident of Montgomery County, Maryland. Entries submitted by those under 18 must include a parent or legal guardian signature on the release form. Individuals affiliated with Montgomery County, contest judges, or family of contest judges are not eligible. Montgomery County will determine the winners' eligibility in its sole discretion.

An EPA Storm Water Phase II endorsed activity

Cuyahoga Soil and Water Conservation District

Storm Drain Stenciling Project Handbook



A How-To manual for pollution prevention education
Nothing but rain down the storm drain!

This handbook was produced by:
Janine H. Rybka
Daniel Boyle, Graphic Design
January, 1995
(Revised April, 2000)
Original funding for the Storm Drain Stenciling Program was provided to the Cuyahoga River Community Planning Organization. Program support was made possible through grants from the George Gund Foundation, the Cleveland Foundation, the GAR Foundation. Additional contributions have been made by the Ohio Department of Natural Resources, the Board of Cuyahoga County Commissioners, and Sherwin-Williams Company.

For more information about pollution prevention and water quality programs, contact:
Cuyahoga Soil and Water Conservation District
216-524-6580
www.cuyahogaswcd.org

TABLE OF CONTENTS

Introduction Page 4

Organizing Your Team 7

Project Procedures

Special Forms
- Team Street Assignments 21
- Group Tracking Record 23
- Waiver Form 24
- Project Agreement Form 25

Appendix of Additional Resources 27

i

NOTES

ABOUT THIS MANUAL

INTRODUCTION

Thank you for your interest in protecting our waterways. This manual provides guidelines to Community Leaders, Local Project Coordinators, and Team Leaders who are implementing a Storm Drain Stenciling Project in their community.

Storm Drain Stenciling is a project that has been identified as a corrective action to restore the river. It is being promoted by Cuyahoga Soil and Water Conservation District as an excellent public involvement and public education project that many cities have identified in their Storm Water Management Plans. A course of action is now being established to eliminate some of the worst problems affecting water quality. One notable problem affecting water quality is storm water runoff.

Storm water carries pollutants from streets, parking lots, storm drains and storage areas and dumps it, untreated, into our local streams, rivers and directly to Lake Erie. Storm Drain Stenciling is a course of action that alerts citizens of the connection between their yards and nearby waterways. The project suggests ways citizens can improve their environmental habits to eliminate part of this pollution problem. Citizens are warned of the dangers of misusing storm drains as garbage disposals by the following message which is painted next to the storm drains in their streets:

Dump No Waste, Drains to Creek

Who should help stencil storm drains? This is a great activity for any volunteer organization, including schools, scouts, churches, block clubs or service organizations (e.g. Kiwanis).

Cuyahoga SWDC is promoting the storm drain stenciling program throughout Cuyahoga County. For information about the program call (216) 524-6580, ext. 12

WHY STENCIL STORM DRAINS?

Why stencil storm drains? **Because toxic materials are damaging our water quality!**

Each year people pour hazardous chemicals, pesticides, paints, detergents, paint chemicals, antifreeze and used motor oil down storm drains. Wastes such as street litter, cigarette butts, animal feces, leaves, and grass clippings are often dumped on the ground or into storm drains. When it rains, these wastes are taken directly to the nearest stream, drains into nearby larger waterways such as the Cuyahoga River eventually draining into Lake Erie. Storm water runoff is said to account for up to 80% of the pollution in some of our waterways. Part of this problem is directly linked to the misconception citizens have about the water that enters storm drains. Many believe that storm water is treated for pollutants the way household sewage is treated. However, when it rains, the storm water carries all sorts of wastes directly into the local streams, rivers and Lake Erie. The use of storm sewers as garbage disposals ruins the aesthetic enjoyment of our waterways and degrades wildlife habitats. Small amounts of toxic chemicals - antifreeze, motor oil pesticides, household cleaners - may weaken aquatic life, especially fish, and make them more susceptible to diseases. It has been estimated that one pint of oil can cause a slick about the size of two football fields on the surface of calm water! The surface of the water is a vital biological habitat, and serves as a nursery for developing eggs and larvae of fish and other aquatic organisms.

By participating in a Storm Drain Stenciling Project you are helping to send a message about a relatively unknown pollution problem and, at the same time, suggesting appropriate actions that can be taken to combat the problem.

ADDITIONAL RESOURCES

• **To report illegal dumping or suspected chemicals in local streams**, contact the Ohio EPA at 1-800-686-6330.

• **A Guide to Safe Management of Household Hazardous Waste** is available from Ohio EPA, Public Interest Center, P.O. Box 1049, Columbus, Ohio 43266-0149. Phone: 614-644-2160.

• **To report problems with home sewage systems** (septic systems), contact your local Board of Health. Akron: 932-4891. Cleveland: 443-7520.

• The Cuyahoga Board of Health has an informational brochure **Homeowners Guide to Household Sewage Treatment Systems**. Phone: 216-201-2020. Ask about the new video for homeowners -- it's free!

• For a list of **municipal managed oil recycling centers**, contact the National Oil Recyclers Association at 791-7316.

• To obtain a copy of **The Waste Line: Issues and Concerns About Household Hazardous Waste**, contact the Cuyahoga County Planning Commission at 216-443-3700.
• The Water Environment Federation, Public Affairs Department, 601 Wythe Street, Alexandria, Virginia 22314-1994, has a brochure entitled, **Household Hazardous Waste: What you Should and Shouldn't Do**. Phone: (703) 684-2400.
• Contact the **Center for Marine Conservation** for information about their pollution prevention programs. Phone: (804) 851-6734.
• **Environmental Hazards Management Institute**, a non-profit environmental consulting corporation, specializes in environmental and regulatory education and compliance assistance. The group produces Water Sense Wheel and Recycling Wheel. Contact P.O. Box 932, Durham, New Hampshire 03824.
Phone: 603-868-1496.

PESTICIDES

• Contact the Environmental Health Watch to obtain a list of alternatives to household hazardous products at 961-2871.
• Report illegal or questionable dumping to local authorities or to the Ohio EPA at 800-686-6330.
Contact the Cuyahoga RAP for a copy of the "Taking Action to Support Our Streams" brochure. This brochure provides a detailed list of problems and organizations you can contact to help eliminate the pollution problem.

ORGANIZING YOUR TEAM

COMMUNITY WIDE ORGANIZING

Storm drain stenciling projects can be done on a community level or by smaller groups. The following information can be applied to most group projects.

1. The community identifies a desire to conduct the project. A captain may be chosen—someone who can help identify other groups and volunteers to be involved in the project, and to help oversee the entire effort.
2. The mayor, local council member, or service director should be notified of the project in order to obtain approval. Cuyahoga Soil and Water Conservation District can provide suggestions and information that will help you win approval. (See "Getting Started" on the following page)
3. A community organizational meeting is scheduled. All potential team leaders and volunteers are invited.
4. At the meeting, the program goals are discussed, a date is chosen, a demonstration is held, and assignments are given.
5. Each volunteer team leader must register and sign a "Project Agreement Form". They are provided with waiver forms for their team members. Waiver forms must be completed by each volunteer and returned to the team leader by the project date.

IDENTIFYING INVOLVEMENT FOR YOUR PROJECT

Project volunteers may be found through the following. Prepare a list and invite all potential leaders to the organizational meeting.

Civic clubs Scouts School Groups
Agencies Organizations
Church Groups Businesses

IDENTIFYING POTENTIAL COLLABORATORS FOR EACH CATEGORY

1.Leadership in official positions; and local leaders not holding office

2.Service providers related to water quality

(e.g. water department, public service department)

3.Potential resource providers -- public/private

(places you can go to raise money or get volunteers)

4.Existing networks to assist in water quality issues

(e.g. school ecology clubs or other related organizations)

BECOME A STREAM STEWARD

HELP PROTECT YOUR LOCAL WATER RESOURCES

1. Take a leadership role and spearhead drain stenciling projects throughout your community.

2. Reduce your use of water and household hazardous wastes at home. Never use a storm drain as a garbage can.

4. Urge local municipalities to increase street sweeping and cleaning of catch basins.

3. Individuals and community groups can help educate and lobby local public officials about water quality issues. Groups can also:

a. Survey local water protection laws looking for wetlands protection, stream bank protection, and construction site run-off ordinances.

b. Get laws enacted to fine violators of the city's no dumping ordinances.

c. Lobby for a local hazardous waste collection day.

5. **DO NOT LITTER!**

6. Adopt a stretch of stream in your neighborhood. Pledge to keep it clean on a regular basis.

Call: **Cuyahoga Soil and Water Conservation District (216) 524-6580, ext. 12**

7. Help restore a Stream Bank with the appropriate natural vegetation. To find out how, contact the Cuyahoga Soil and Water Conservation District (SWCD).

8. Urge schools to include information about water quality issues in the Great Lakes and Cuyahoga River and Rocky River Watersheds in their curriculum. Call your local Soil and Water Conservation District to find out more about "Riverguide", a fun, thematic curriculum for teachers.

Information About Other Concerns

• Where should you take used motor oil? Contact the National Oil Recycler's Association at 791-7316 or call the Cuyahoga County Solid Waste District at 443-3700.

• For recycling information contact the Akron Recycling Hotline at 375-2129 or Cuyahoga County Recycling Program at 443-3700.

• For questions regarding septic system concerns, contact your local Board of Health.

GETTING STARTED

1. Before embarking, please contact Cuyahoga SWCD at (216) 524-6580, ext. 12.
2. You may wish to develop a brief proposal and submit it to your local municipality for approval. The report should briefly discuss the project; proposed dates that the stenciling may take place, and ask for the following:
    a. Permission to do the project;
    b. The area to be covered. (A list of streets is helpful). To have a bigger impact ask the service director for streets where dumping now occurs;
    c. Notification of the police department in the event residents complain about the project;
    d. Permission to meet at a community location, such as a service garage, school, or other facility. This location would serve as the meeting place and drop-off location;
    e. What color paint should be used, and if the city can donate the paint. Note: Most communities prefer white paint.
    f. Traffic cones to alert drivers in project areas (if desired).
3. Develop your teams. Each team consists of five individuals:
    2 painting the fish - (safety vest optional)
    1 watching traffic (safety vest optional) and keeping count of drains stenciled.
    2 delivering fish shaped door hangers to the homes or businesses on the street where drains are being marked.

Please note: At least one adult needs to be in each group with minors. The adult can help record the number of drains stenciled, monitor the traffic, and monitor those distributing door hangers.

Storm Drain Stenciling Organizational Chart

SWCD Coordinator

Local Coordinator

Team Leader Team Leader Team Leader

Group 1 Group 2 Group 1 Group 2 Group 1 Group 2

4. Team Leaders should be trained about the project and safety procedures before the stenciling date by the Local Coordinator or trained volunteer. The Team Leaders can then train their teams. In some cases, Volunteers may provide training on the project date, call (216) 524-6580 x12.
5. Team Leaders can pick up needed supplies at the training sessions or on date of stenciling. The materials needed for each group of five include:

fish shaped door hangers (approximately 150 per team)
2-3 safety vests (optional)
waivers (signed prior to project initiation)
project procedures (for small team leaders)
street assignment sheet
tracking sheets (to count the number of drains stenciled)

Additional supplies needed to be obtained by each group:

- striping paint (2 cans per team of five)*
- pen or pencils
- whisk broom (optional)
- 3 trash bags
- cardboard box or wagon to carry wet stencils and supplies (optional)
- first aid kit
- transportation to the stenciling site
- money for a phone call or cell phone

*Paint may be donated depending on availability. Otherwise, contact a local paint store for commercial striping spray paint. Each can paints about 20-25 stencils. Sherwin Williams carries a striping paint at their commercial retail stores.
6. **Any team not completing a "Project Agreement Form" will not be considered an official part of the Storm Drain Stenciling Project.**
Team Leaders need to sign a "Project Agreement Form" at their training session. Waiver forms for minors need to be distributed prior to date of project. All waiver forms (for adults and minors) must be completed by the day of the project and delivered at registration.*
7. The Local Coordinator or team leaders may want to issue a press release to local media prior to stenciling date. A rain date may be announced.
8. Team leaders may wish to remind volunteers of project date and exact meeting time and location prior to the event. Some groups may find that phone trees are helpful way to accomplish this task. Team leader should also remind volunteers to wear old clothes in case of over spray.

APPENDIX

STREAM STEWARD

HOW YOU CAN ENCOURAGE VOLUNTEERS TO JOIN YOUR PROJECT

Marketing the Storm Drain Stenciling Project in your community will help explain the project goals and encourage volunteers to join the effort. The Cuyahoga Soil and Water Conservation District can help provide training, serve as an advisor and help coordinate information and referrals.

Any organization deciding to undertake this project should plan far enough in advance to receive training, obtain the necessary permits from local municipalities, and announce the project, secure volunteers and needed supplies.

Advance planning provides an opportunity for volunteers to get better acquainted with the program goals and helps provide a more enjoyable experience.

Use the following resources to get information about your project into the community:

- **Press Releases**

Local papers are a very efficient way to promote an upcoming project. In large metropolitan areas such as Akron and Cleveland, your project may be linked to a current environmental issue. Many smaller newspapers will provide coverage or take an article submitted by your organization. Television and radio stations are other outlets for your information. Cuyahoga SWCD can help you tailor a press release for your community.

- **Target Mailings**

Create a flier to distribute to local groups or citizens inviting them to get involved in the project. Cuyahoga SWCD or your Local Project Coordinator may be able to provide a list of contacts in your community.

- **Organizational Distribution**

Drop off fliers to your local library, civic organizations, recreation centers or community centers, businesses, schools, scout troops, and parent-teacher

organizations. Ask your members to help by asking their friends. Word of mouth really works the best!

- **Newsletters**

Send notices, well in advance, of your project to other organizations that have newsletters. This will create an awareness of the project and may help attract more volunteers. Church bulletins often print short notices of volunteer projects. Notice of your project date can also be posted on community bulletin boards and the Internet.

- **Events**

Other events in your community offer an opportunity to distribute fliers about your project. You may consider setting up a booth with stencil kit and registration sheet to garner additional volunteers.

STORM DRAIN STENCILING PROJECT AGREEMENT FORM

I am authorized to act on behalf of_____ (sponsoring organization) (hereinafter referred to as "Sponsor") , I have carefully read and understand the guidelines for the Storm Drain Stenciling Project (hereinafter referred to as "Project"). In consideration of the Sponsor's participation in the Project, I hereby acknowledge and assume the following responsibilities:

1) Participants in the Project are solely under the supervision of the Sponsor.
2) Waivers of Liability will be signed for each participant prior to commencement of the Project.
3) Sponsor will train each participant in pedestrian and other relevant safety rules. All participants will be evaluated by Sponsor to determine if they are responsible individuals who will abide by the rules of the road and use due care and caution while participating in the Project.
4) The Cuyahoga River Community Planning Organization will provide the stencils, door hangers and instructions which the Sponsor insures will be used only as intended.

_____ _____
Signature Date

_____ _____
Printed Name Organization

_____
Title or capacity of person signing agreement

VOLUNTEER TRAINING

When a person contacts Cuyahoga Soil and Water Conservation District's Public Involvement Coordinator, the Coordinator will ask how they heard of the project. A log will be kept of all interested sponsors or volunteers. Project information and volunteer referrals will be sent to the Local Project Coordinator or Team Leader. The Cuyahoga SWCD Public Involvement Coordinator will schedule periodic training for volunteer community leaders. Notices of training sessions will be distributed via the "On the Land" newsletter, Cuyahoga SWCD's Speaker's Bureau and special mailings. Each team leader should plan on sending out fliers to his/her constituency. Team Leaders must attend a one hour training session. After training team leaders will receive the project handbook, stencils and door hangers. Stencils and unused door hangers need to be returned to your Local Project Coordinator or the Cuyahoga SWCD Coordinator after project completion. The Local Project Coordinator or Team Leader is responsible for training teams on the date of the community project if the entire team has not attended a local training session. Training of volunteers is relatively easy and takes approximately 30 minutes. The Coordinator provides an overview of the program, discusses the project timetable, guidelines and safety procedures. Supplies are distributed to the teams at this time. A demonstration of proper stenciling techniques is also provided.

The Team Leader collects signed waivers. Cuyahoga Soil and Water Conservation District and/or local municipalities are not responsible for any injuries or any liability. It is the responsibility of the Team Leader to designate street assignments to each team. It is extremely important to catalog where each volunteer will be stenciling in case of an emergency. Team assignments should be kept on file in case of an emergency.

COOPERATIVE AGENCIES STORM DRAIN STENCILING PROGRAM AGREEMENT TO PARTICIPATE RELEASE & WAIVER FORMS

In consideration of permission to participate in the cooperating agencies Storm Drain Stenciling Program sponsored by the Cuyahoga Soil and Water Conservation District and any and all others who sponsor and or participate in this Storm Drain Stenciling Program and recognizing that this program will involve activities which because of their close proximity to the street are inherently dangerous, I, intending to be legally bound, hereby, for myself, my heirs, executors and administrators, voluntarily assume all risks of accident or injury and release and forever discharge the Storm Drain Stenciling Program sponsors and their respective employees, officers and agents from any and all liability for personal injury or property damage of any kind sustained in association with participation in the program, whether such personal injury or property damage is caused by the negligence of the Storm Drain Stenciling Program sponsors or their respective employees, officers, agents or otherwise. I covenant and agree to indemnify and hold harmless the Storm Drain Stenciling Program sponsors, their respective employees, officers and agents, from all liability, loss and expense, including but not limited to damages, legal expenses and cost of defense, in any matter arising from my participating in the Storm Drain Stenciling Program.

I further agree to abide by all applicable rules and regulations promulgated by the Storm Drain Stenciling Program sponsors and agree to follow the instructions of all supervisors and/or instructors who are connected with this activity.

I have read and fully understood the foregoing and intend to be bound by it. With my signature, I join the Storm Drain Stenciling Program.

_____

Participant Signature Date

_____

Participant Name Printed

_____

Address (Number, Street, City & Zip Code)

(_____) _____ - _____

Telephone Number

Signature of Parent or Guardian (if under 18 years of age) Date

_____

Parent or Guardian Name Printed

_____

_____

_____

Address (Number, Street, City & Zip Code)

(_____) _____ - _____

Telephone Number

SAMPLE LETTER TO A VOLUNTEER TEAM LEADER

January 5, 2000
Team Leader
123 Cuyahoga Street
Cleanwaters, Ohio 44000

Dear Leader:

Thank you for your interest in the Cuyahoga Clean Waterways-Storm Drain Stenciling Project. Your participation will help alert others about the dangers of dumping wastes into storm drains. You will also be helping to promote clean and litterless waterways.

Team Leaders must attend one of the project training sessions (see dates below). The training session will provide safety tips, project training and information about record keeping. A Project Agreement Form must be signed at this time for your team to be recognized as participating in the project. Training sessions take approximately one hour. After training, your group will receive the supplies listed on the enclosed sheet. It is your responsibility to obtain the remainder of the supplies.

It will be your responsibility to train your team members, collect permission slips and record data. Data and remaining supplies need to be returned to me.

All your team members must have a mandatory training and safety session before embarking on a community stenciling project. This can be accomplished on the date of the project. The training should take about one-half hour. Participants receive their supplies after the training session. At this time they also will receive street assignments and tracking forms to record the number of drains stenciled.

Accurate record keeping is crucial.

Community training sessions for the Storm Drain Stenciling Project are scheduled on the following dates. Choose a time and location convenient for you.

Training date
Training time
Training location

Please call to confirm which training session you plan to attend. Thank you. We look forward to seeing you soon.

Sincerely,
Your Local Project Coordinator

(One copy per team of five)

GROUP STREET TRACKING RECORD

Name of Organization: _____

Group Leader/Monitor: _____

Date of Stenciling:_____ City:_____

Location: _____

On _____ between _____

&_____

Number Stenciled: _____

On _____ between _____

&_____

Number Stenciled: _____

On _____ between _____

&_____

Number Stenciled: _____

On _____ between _____

&_____

Number Stenciled: _____

On _____ between _____

&_____

Number Stenciled: _____

On _____ between _____

&_____

Number Stenciled: _____

Please return with Project Agreement form (unless already collected) and evaluation form to: Cuyahoga SWCD, 6100 West Canal Road, Valley View, Ohio 44125 or to your local Project Coordinator.

STENCIL KIT INVENTORY

At the mandatory training session for Volunteer Team Leaders (or overall team training), the following items will be distributed. Each Volunteer Team Leader must sign a "Project Agreement" form before receiving the materials.*

To be supplied by Project Coordinator/Community Leader for each team of five:

- **2 Mylar stencils**
- **Door hangers**

(approx. 150 per team)

- **Waiver forms**
- **Street assignment forms**
- **Tracking forms**
- **Project procedures**

To be supplied by Volunteer Group:

Each team of five (plus one adult if group are minors) needs the following:

- **Volunteers**
- **2 cans - "Striping" spray paint** ($3.95 can, unless donated)
- **2-3 Rags, or**
- **1 sponge to wipe off stencil**
- **3 Trash bags** (I for litter pickup, 2 to hold stencils)
- **Cardboard box or wagon to hold painted stencils and supplies between drains** (optional)
- **Pencils or pens**
- **Latex gloves** (optional)
- **First Aid Kit**
- **Transportation**
- **Coins for an emergency call**

***** This applies to each individual organization taking part in a locally coordinated project or a team working by itself.

CUYAHOGA CLEAN
WATERWAYS
Storm Drain Stenciling Project
Volunteers composting Fishes your street to remind people that unwanted household products, yard wastes and litter should not be dumped into storm drains. Stencils are placed near and drain flow out local rivers, streams and lakes, especially when a wetland. The of pollution may contain chemicals which are harmful to fish and wildlife. Pour ONLY rinse water down the drain. Hazardous materials may be hazardous to our sewer system.
Sewer System
reduces flooding caused by system which sometimes sewage and storm water mix together. This causes their wastewater for treatment at the sewer plant. Call 216-881-6600 x 1 about the Storm Drain 1-216- ann. 6.00.
ster Watcher
Volunteers will be trained and equipped. Be on the lookout for their unwanted household products and litter.

11 22

Each team will receive a stack of fish-shaped door hangers. Door hangers are distributed on the streets where the stenciling is taking place. The text follows:

FISH DOOR HANGER (SIDE ONE):

CUYAHOGA CLEAN WATERWAYS

Storm Drain Stenciling Project

Volunteers are painting fish on your street to remind people that unwanted household products, yard wastes and litter should not be dumped down curbside drains because they often end up directly in our local rivers, streams and lakes, especially after a rainfall. This non-point source type of pollution may contain chemicals which are harmful to fish, aquatic life and humans. It is estimated that 80% of the pollution in our waterways may be traced to non-point sources such as storm water run off.

The Storm Sewer System

Storm sewer systems are designed to reduce flooding caused by rain storms. Unlike the sanitary sewer system which accepts sewage and transports it to the treatment plant, storm sewers generally are not routed to the treatment plant. This means that whatever debris, litter or chemicals wash down the storm drains often end up in our local waterways.

Help protect our water resources!

To get involved or for further information about the Storm Drain Stenciling Project, please call (216) 241-241, ext. 610.

Be A Water Watcher

Help keep our water safe for drinking and enjoyment. Do not use storm drains as trash cans for wastes or other unwanted household products. To find out more about other pollution prevention activities or programs call 216-241-2414, ext. 610.

*** Municipalities may modify this information to satisfy stormwater regulations and to include a phone number, etc.**

FISH DOOR HANGER (SIDE TWO):

Report Pollution

If you see someone dumping something down a storm drain, report the incident to your local authorities such as the city service department, fire department or the Ohio EPA Hotline at
(800)686-6330.

Clean water is important to all of us!

What You Can Do To Help

• Never dump used motor oil, gasoline or antifreeze into the storm drain. Call your county recycling office for the nearest disposal facility.

• Don't dump grass clippings or other yard wastes into the storm sewer. Compost or mulch yard wastes.

• Properly dispose of paints, strippers, and other household hazardous products. Donate unused products to local community organizations.

• Reduce fertilizer and pesticide use and adhere to manufacturer's recommended dosages.
• Bury pet wastes or dispose in trash.
• Place cigarette butts and other trash in proper containers.

Storm drains **should not** be used as trash cans!

For Project Coordinator/Team Leader

TEAM STREET ASSIGNMENTS

Local Team Leader: _____ Date: _____ Phone: (___) ____-_____

Please list volunteers by group with their given street assignments. This record needs to be filed by the Local Team Leader/Coordinator. Thank You.

1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Streets Assigned:	**Streets Assigned:**
A.	A.
B.	B.
C.	C.

Make as many copies of this sheet as needed.

One of these sheets needs to be completed for each date a project is performed in your community. It provides an important record of which storm drains were labeled.

PROJECT COORDINATOR/TEAM LEADER CHECKLIST

Before the Project Date:

Have you made arrangements with the local service director or mayor, or any other authorities to obtain the proper permission to conduct this project?

( ) Leader attended a project training session.

( ) Leader signed a "Project Agreement Form".

( ) Leader picked up necessary supplies.

( ) Waivers were distributed to all group leaders and volunteers.

( ) Team leader has a map with streets to be stenciled highlighted.

On Project Date:

( ) Volunteers sign in. Waivers are collected.

( ) Volunteers divided into groups of five with one adult for each group of minors.

( ) Street assignments are given and recorded. If possible, have street assignments made beforehand. Each volunteer needs to be listed on a street assignment form.

( ) Volunteers are given project safety and instruction procedures.

( ) Each group is given their supplies and told when and where to meet upon completion.

( ) Unused paint, stencils, vests, and tracking information are returned to Team Leader/Coordinator. Team Leader returns to Project Coordinator.

Notes:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

PROJECT PROCEDURES

HOW TO DISTRIBUTE DOOR HANGERS

1. Each team monitor will be given a stack of fish cards to leaflet on the streets where stenciling is occurring.
2. Cards are given to two team members who walk door to door.
3. **Do not place cards in the mailbox.** Behind the box is O.K.
4. Hang cards on the front or side door knob away from the wind and weather. Other locations to hang the card may be another part of the front door or from the mailbox, inside a door gate, between doors, or under a mat.
5. Persons distributing the door hangers should use the sidewalks at all times and stay in sight of the team supervisors.
6. Beware of dogs and stay away from suspicious locations.
7. Always stay in sight of the adult supervisor.

HOW TO CLEAN YOUR STENCILS

Stencils may be obtained from the Cuyahoga SWCD Coordinator or your Local Project Coordinator. Please call 216-524-6580, ext. 12 for information.

The Local Project Coordinator or your Team Leader distributes 2 stencils to each team of five people after team training. After the project is completed, the stencils should be cleaned as carefully as possible. Clean stencils should be returned to the Local Coordinator for storage.

Stencils may be used as long as the stenciled message is readable. Apply appropriate amount of paint-stencils become unreadable if too much paint is applied or if the paint is not removed with a dry sponge. **Do not throw the stencils away. Never Fold Stencils.**

Cleaning Tip: Allow paint to dry **completely**. Carefully roll the stencil in two directions to loosen the paint. It should flake off. Use a newspaper to catch the paint

chips, roll up the paper and dispose of it in the trash. Return stencils to your local Project Coordinator.

For Team Leaders

HOW TO STENCIL A STORM DRAIN

1. Make sure the area near the drain is dry and free of pebbles. A whisk broom or small wire brush may be used. Pick up any debris or litter in the area of the drain and place in trash bag.
2. Arrange stencil on the flattest area possible, in front of the drain, facing the sidewalk so that a pedestrian is able to read the message.

One team member should secure the stencil to the pavement.

3. Shake paint for one full minute. Hold spray can vertically 7" from the road surface.
4. Spray using a smooth back and forth motion. Apply a moderate amount of paint quickly and uniformly. Try to spray over the letters only. Do not use too much or the stencil will be unreadable. Let the stencil sit on the ground for ten seconds, then lift up quickly, but carefully. Only one stencil per storm drain!
5. Use a sponge to wipe off excess paint. Carefully place stencil on cardboard or in the bag to carry to the next drain.
6. Do not allow paint to build up on the stencil. Stencils need to be reused.
7. If message is unreadable move to next drain, apply less paint. Remove excess paint if the stencil is too wet. If the problem persists, place stencil in cardboard or trash bag and use a new stencil.
8. **PLEASE DO NOT FOLD STENCILS OR THROW AWAY.**
9. While stenciling is in progress, other members of the team should distribute door hangers to the homes on the street. Stay off resident's grass. Door hangers may be placed behind the mailbox, between the screen door and the inside door, securely on the door, or under a mat.

It is **Illegal to place literature in a mailbox.**

10. Remember to keep a count of drains that are stenciled and the streets that we're stenciled and mail your totals to the RAP Project Coordinator.

NOTE. Use common sense. Volunteers may wish to work both sides of a street in one direction or go up one side and down another before moving on to the next street.

STENCILING PROJECT GUIDELINES

Local Coordinator: The contact person in your community who is helping to coordinate the local project, providing training and distributing supplies.

Team Leader: A community leader who coordinates a team of five or more volunteers.

Adult Supervisor/Monitor: The adult supervisor of a group of 4-5 individuals who will distribute waiver forms to group members, help track data, and provide information back to the Team Leader.

1. Project is not recommended for children under age ten.
2. **One adult is mandatory for each group of 4-5 minors.** Adult Supervisors stay at the roadside to monitor traffic and stenciling, and volunteers distributing the door hangers. Supervisors may help track number of drains stenciled on each street.
3. Collect waiver forms (enclosed). Waiver forms for minors should be sent home prior to the project date, signed by a parent or guardian and returned to the team leader prior to or on the day of the project. Adult volunteers may complete waiver forms on the day of the project. Keep waiver forms on file. After collecting waivers, teams sign in and are given street assignments.
4. Volunteers break into groups of five. The adult supervisor may be included in this number. Team tasks include:
• 2 volunteers to stencil (safety vests optional)
• I traffic monitor (may be in addition to adult monitor)
• 2 volunteers delivering door hangers
• Rotating tasks provides each member with an opportunity to stencil.
5. Each group is assigned 2-3 blocks. The Local Coordinator or Team Leader should have streets assigned before teams go out. A street assignment form is provided. The team leader explains street locations and may provide a map to each team.
6. Safety rules, guidelines and training are explained.
7. Local Coordinator or Team Leader demonstrates how to stencil. At this time, rain date may need to be chosen if the ground is too wet or wind conditions are unacceptable (to be determined if the paint runs or by the amount of over spray).
8. Each group monitor is given a tracking sheet which must be returned to the team leader at project completion. Tracking sheets are to record the number of drains stenciled and amount of paint used. (see #16)
9. NOTE: Volunteers need to know that damage resulting from this project will be their responsibility, so caution is urged. **Do not spray** if vehicles are too close to drains or within 10 feet of the wind path; move to a more acceptable site.
Always keep cap on paint when moving between sites.

DRAIN STENCILING PROJECT SAFETY RULES
• **All volunteers must receive training**.
• Volunteers should **wear light colored, old clothing**.
• Team members will be briefed about all safety procedures and stenciling guidelines before beginning the project.
• **Be prepared for an emergency**. Group leaders should have ready access to a first aid kit. Each team of five persons should have transportation immediately available. It is also a good idea for a group leader to have coins for an emergency phone call.
• **Do not** schedule a stenciling project at peak traffic times.

• **Stencil during daylight hours only**, not at dawn, dusk.
• Temperature must be above 55 degrees Fahrenheit and reasonably dry.
• Do not wear headsets or carry radios to the stenciling sites.
• **An adult supervisor is needed for every team** of five juveniles. The supervisor may wish to use a whistle to alert workers of approaching cars.
• When stenciling storm drains along the side of the road, be conscious of vehicular traffic.
• **Use care when picking up litter**. Gloves are a good idea. Never pickup a syringe or suspicious looking objects. Report to police department.
• If provided, place traffic cones in the street, approximately 10 feet from each side of the storm drain.
• Traffic monitors and the person stenciling may **wear an orange safety vest**. Monitors will flank those stenciling on either side and watch for traffic from both directions.
• Use the same caution that you would use while walking to or from school.
• **Stay away from parked vehicles.** Team members are personally responsible for property damages.
• **NEVER spray paint in the air or on another volunteer. SAFETY is a Top priority.**

10. Inform volunteers that the mayor, service director and police have been informed of the project in the event that a resident has questions.
11. Volunteers will only stencil the storm drains on residential streets. No stenciling on private property (parking lots). One stencil per drain, please.
12. Paint cans should be capped to prevent accidental discharge when not in use or when moving to the next drain.
13. Each group should have the following: stencils, safety vests, paint, door hangers, street maps, tracking sheet, litter bag and cardboard box for transporting the stencil, and other supplies.
14. Designate a location for return of supplies after completion. This is usually the same place where the team meets.
15. Collect tracking sheets. Announce to the entire team the total number of drains stenciled for the day.
16. Send tracking information, including streets and number of drains stenciled and amount of paint used to the Cuyahoga SWCD Coordinator: Project Coordinator, Cuyahoga SWCD, 6100 West Canal Road, Valley View, Ohio 44125.
17. Stencils and safety vest must also be returned to the Local Coordinator.

Storm Drain Art Manual

A guide to brightening up your neighborhood storm drains.

BLUE WATER BALTIMORE

Clean Water. Strong Communities.

storm drain art manual

TABLE OF CONTENTS

I. Introduction

II. Planning

- a. Bird's Eye View
- b. Define your vision
- c. Recruit your team
- d. Scout your drains
- e. Budget
- f. Design
- g. Application

III. Training

IV. Painting

V. Close out

VI. Thank Yous

BLUE WATER BALTIMORE
Clean Water. Strong Communities.

Blue Water Baltimore is a nonprofit working to restore the quality of Baltimore's rivers, streams, and Harbor to foster a healthy environment, a strong economy, and thriving communities.
BlueWaterBaltimore.org

I. INTRODUCTION

This is a guide on how to engage your community in a creative project to brighten storm drains near you and raise awareness about the importance of keeping our streets and streams clean.

INSPIRATION – FROM BRAZIL TO BALTIMORE

Baltimore's storm drain art movement was inspired by Brazilian artists Anderson Augusto (SÃO) and Leonardo Delafuente of the 6emeia project. 6emeia was created with the purpose of transforming daily life through street art. The artist duo began painting storm drains, and other urban fixtures, in an attempt to convert mundane elements of city life into colorful and comical pieces of artwork.

Storm drain mural by 6emeia in Sao Paulo, Brazil.

In Baltimore, storm drain muraling was kick-started by Sarah Tooley and 901 Arts, a community-based youth arts center dedicated to providing art and music programs to the children and teens of Baltimore's Better Waverly neighborhood. In 2010, Tooley worked with youth to design and paint storm drain murals of sea creatures around the neighborhood to raise awareness about the impact of littering on the environment. The word spread and Blue Water Baltimore stepped in to help expand the movement throughout the Baltimore area. Since 2010, more than 500 storm drains have been stenciled and painted in Baltimore.

Storm drain mural by 901 Arts in Baltimore's Better Waverly neighborhood.

WHY PAINT STORM DRAINS?

Storm drains are the mouths to our waterways. Every time it rains, trash and pollutants on our streets are carried into the storm drains and directly to our streams, harbor, and the Chesapeake Bay. By painting Baltimore's storm drains, we are reminding residents that our neighborhoods are connected to our streams.

The illustration on the left highlights the actions that contribute to stormwater pollution and the one on the right shows the solutions.

II. PLANNING

BIRD'S EYE VIEW: To get started, think through the following aspects of your project.

WHO do you want to involve in this project?

- Community association? Neighbors?
- Students? After-school program?
- Local artist?

WHAT is your vision?

- Murals
- Stencils

WHEN? What is your timeline?

- Spring?
- Early summer?
- Fall?

WHERE will the project take place?

- On your block?
- Outside of your school? Church? Business? Bus stop? Corner store?

WHY? This one is easy.

- Because you care about your neighborhood and your waterways!

HOW? Keep reading!

- Planning
- Training
- Painting
- Close Out

II. PLANNING

DEFINE YOUR VISION: The first decision to make is whether you want to complete a storm drain mural or stencil project. Check out our *Flickr site* and browse past projects to help you brainstorm. Many steps in the process are the same for each project type and both are fun and colorful ways to engage your community.

Different groups do these steps in different orders, so we encourage you to familiarize yourself with all the pieces of the storm drain art process before starting your project.

Storm drain stencil in the Locust Point neighborhood of Baltimore.

STENCILS

WHAT IS IT? *Storm drain artwork that utilizes pre-approved or self-generated stencils and spray paint*

- Cost: Spray paint, Rustoleum Ultra Cover 2x Indoor Outdoor ($5/can)

STRENGTHS

- Quick (planning time and painting time)
- Can cover many drains
- Anyone can do it (artists and non-artists, old and young)
- Inexpensive
- Ties neighborhoods together with common messages
- Pre-approved designs

WEAKNESSES

- Less room for creativity
- Less community involvement

MURALS

WHAT IS IT? *Free-hand storm drain artwork that is designed and painted by your team. Uses traffic paint with anti-skid additive and brushes.*

- Cost: Sherwin Williams ProPark traffic paint ($30-$40/gallon) and Shark Grip anti-skid additive ($9)

STRENGTHS

- Community-generated design
- Eye-catching
- Unique
- Can involve a local artist

WEAKNESSES

- More involved process (planning time and painting time)
- Some level of artistic skill needed
- More expensive

Storm drain mural painted by the Green School of Baltimore in the Belair-Edison neighborhood.

II. PLANNING

SCOUT YOUR DRAINS

a. Location is key! Think about places where people will see the artwork and where you will have the most impact (outside of library, school, church, bus stop, corner store).

b. Print out a map of your neighborhood. Walk and mark the drains you plan to stencil on your map. Taking a photo of the most common type of drain is also helpful.

c. If you find drains that are broken, crumbling or clogged, call 311 to notify the City.

WHAT IS THE DEPARTMENT OF PUBLIC WORKS? Baltimore City Department of Public Works (DPW) is responsible for managing Baltimore's solid waste services, water, wastewater, and stormwater systems, facilities and infrastructure.

WHAT IS 311? 311 is Baltimore's non-emergency city service system. Residents can make service requests over the phone or online.

WHAT IS STORMWATER? Stormwater is rain that flows over hard surfaces (like parking lots) collecting pollution along the way.

Students from Armistead Gardens Elementary/Middle School display their freshly painted storm drains

CONSIDER THE FEATURES OF YOUR CANVAS

RECRUIT YOUR TEAM

Select a project leader. This person will guide the entire project through to completion.

Think about who will be involved in the project.

a. This project will be a part of your community, so you should involve the community.

b. Contact your neighborhood association to let them know about the project and see if they want to be involved. They can connect you with: school groups, church groups, block leaders, artists, etc.

c. If your project involves youth, make sure that you have enough adult chaperones for every painting group. Stenciling projects are not recommended for children younger than 3rd grade.

d. Do you want to recruit a local artist? Contact Maryland Institute College of Art's (MICA) Office of Community Engagement, Coppin's Urban Arts Program or ask your neighborhood association for ideas.

TIP! *Block parties can be great opportunities for storm drain projects since the street is already shut down. The stencils can also be used with sidewalk chalk to engage children younger than 3rd grade.*

II. PLANNING

APPLICATION

Before painting, it is important to complete our brief, online application to keep Blue Water Baltimore and Baltimore City informed of your project details (how many storm drains you plan to stencil, number of volunteers, what designs you intend to use…). The approval process usually takes about 1-2 weeks, so keep this in mind when you are planning your project. You can also request to have your approval letter sent to you to have on-hand on the day of your project.

To begin your application, visit the Stencil Share page on our website.

BUDGET

STENCILS: The cost of a stenciling project is the cost of the spray paint and snacks for volunteers.

MURALS: The cost varies based on price and complexity.

CREATE A BUDGET

a. Supplies (see 'Supply List')
b. Artist Stipend (optional, varies with artist)
c. Youth Stipend (optional)

SECURE FUNDING

a. Social Media: GiveCorps, Kickstarter, GoFundMe
b. Cash and In-Kind Donations: Ask for donations from local businesses (grocery stores, hardware stores) and institutions (churches, schools).
c. Fundraising Events: Consider bake sales, silent auctions, yard sales, movie nights, spaghetti dinners. The possibilities are endless.
d. Apply for Grants
   - Chesapeake Bay Trust Mini-grants
   - Parks and People Greening Grants
   - Keep America Beautiful Grants

DESIGN

STENCILS: Stencil kits come equipped with a variety of pre-approved stencils that can be combined in any arrangement you like!

Participants are also welcome to design and create their own stencils! Please submit designs for approval on the storm drain application form.

MURALS: All designs must be approved by the Baltimore Department of Public Works, so be sure to include your design in your online application. Baltimore City will not approve any designs that make the storm drain opening look like a mouth. (See design worksheet in appendix.)

NEXT LEVEL! *Hold a friendly design competition! It can be fun to ask your team to submit their own designs for a storm drain art project. Then vote on a winning design (or a few!) to put on a nearby drain.*

TIP! *Traffic paint is sold by the gallon, so each can will cover many storm drains. To lessen the cost, consider setting up a "paint share" and splitting the cost with your community association or another group that is interested in muraling.*

THINGS TO THINK ABOUT…

Mind the manhole: Think about ways to incorporate the manhole cover into your design. Remember: manhole covers are lifted regularly for city maintenance. Whatever you paint on the manhole must be able to be rotated.

Orientation: Which way will your design face? To the street or to the sidewalk? Who do you want to read your message? People crossing the street? People coming out of a corner store?

Storm Drain Stencils in East Baltimore Midway

III.TRAINING

1. WE TRAIN YOU

We want the drains to look good and the projects to run smoothly, so it is important for a team member to attend our trainings. Blue Water Baltimore holds free Storm Drain Stencil Trainings around the city for organizers like you. Check out the BWB Event Calendar for specific dates in the Spring and Fall!

2. YOU TRAIN YOUR TEAM

Key messages to pass along to your team members:

a. Stormwater 101 (contact Blue Water Baltimore for additional resources on stormwater education)

b. Safety

c. Site Preparation

d. Get the right layout

e. Stencil/Paint Technique

f. Volunteer Management (assign tasks)
*When working with youth, there should be at least one adult chaperone in every group.

Community members watch a stenciling demonstration at a joint stenciling training with Blue Water Baltimore and Patterson Park Audubon for Earth Week 2013.

Storm drain stenciling supplies.

SUPPLY LIST

Our storm drain art toolkits include:

- 10+ pre-approved Mylar stencils
- 10 Fluorescent traffic vests for high visibility
- A wire-bristle brush
- Masking Tape
- Informational flyers to distribute to passersby
- 1 pair of work gloves (for cleaning drain)
- Chalk

We ask that project groups provide their own:

1. Spray paint for stenciling projects (*Rustoleum Ultra Cover 2x for Indoor/Outdoor*)
2. Traffic paint for mural projects (*Sherwin Williams ProPark* traffic paint with *Shark Grip* anti-skid additive)
3. Overspray materials (cardboard, paper yard waste bags, etc…)
4. Trash bags for cleaning the drain
5. Optional: Gloves to protect hands while painting and masks for participants with vulnerabilities to spray paint irritants

IV.PAINTING

SAFETY: Safety is a high priority when painting storm drains. To maximize safety for your stenciling project:

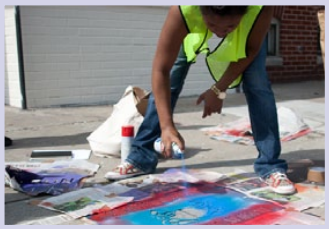
a. Plan your project for low-traffic times.

b. Stand on the sidewalk when stenciling. The entire 'canvas' is accessible from the sidewalk.

c. Wear the reflective vests included in the stenciling toolkit. You may request more vests if 10 will not be enough for your project.

d. Designate a team member to keep an eye on traffic in the street and on the sidewalk.

e. Place traffic cones around the drains when you are stenciling.



Stenciling in Druid Heights

Stenciled drain in Remington

SITE PREPARATION

a. Remove the trash and debris from the storm drain using work gloves and garbage bags.

b. Thoroughly scrub the area that you intend to stencil with a wire-bristled brush. This step removes the layer of dust from the pavement so that your paint will last longer.

PAINTING BEST PRACTICES

STENCILS

a. **IMPORTANT: DO NOT ADD TOO MUCH PAINT!** Start with a light spray. You can always add more but you can't take it away. Make sure to hold spray paint 4-8" from the surface and move arm in a sweeping motion (side to side) while spraying.

b. Protect against overspray: It is important to completely cover the pavement around the stencil that you do not want painted. Before spraying, double-check to see if there is any area exposed to overspray.

c. Keep it simple: Projects have the best results when teams use only a couple (2-3) color options per drain that look good together (i.e. blue and green, blue and red).

d. Limit text to one color: The message is the most important part of the stencil so we want to make sure it is legible.

MURALS

a. Have a lesson on painting technique with your team before going out to the actual drain. Discuss: Slow, careful brush strokes moving with (not against) the bristles; wiping excess paint from brush so it doesn't drip on the pavement; holding your hand under your brush when you aren't painting to catch drips; being careful not to set paint-filled brushes on the pavement…

b. If paint does drip on the pavement outside of the desired area, wipe it up immediately with a wet cloth before the paint dries.

c. Painting the background of the storm drain blue is helpful for making your project stand out and painting over little mistakes.

3 STEP MURALING PROCESS

1. Background

2. Basic Design

3. Detail Layer

NEXT LEVEL! *Invite 901 Arts or Blue Water Baltimore to do a workshop with your group.*

V.CLOSE OUT

1. **REPORT FORM:** Once your drains are painted and beautiful, the next step is filling out a project report form. Your feedback is essential in keeping track of painted storm drains and in shaping the future of the program. Also, the pictures that you include in your report will be uploaded to our Flickr page, which puts your project on the map with other Baltimore storm drain artists.

2. **MAINTENANCE/ADOPTION:** You want this project to have a lasting impression on the community. Determine who is going to be in charge of keeping it maintained.

a. Possible groups for drain adoption:
   - Homeowners
   - Business owners
   - Classroom
   - Storm Drain Squad

b. How to keep your drains looking beautiful:
   - Clean them out regularly--don't let your drains get clogged with litter!
   - Repaint it if necessary. Most paints last anywhere from 1-5 years
   - Call 311 to report clogs or other issues with the drain

NEXT LEVEL!

Hold a celebration! Have an unveiling event of your newly painted drains! You can invite community members and even local media to come see your newly painted drains.

Organize a walking tour! Depending on how many storm drains you decorate, consider organizing a walking tour to show off the new drains and educate community members about stormwater pollution.

CASE STUDY

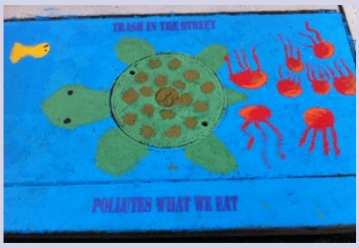
BALTIMORE GREEN SCHOOL

Every year, The Green School of Baltimore's 3rd grade class does a hands-on environmental project. In 2012 they painted and installed rain barrels on their school grounds. Located just a few blocks away from the Herring Run stream and across the street from Blue Water Baltimore, a storm drain art project seemed like a natural next step.

The project started with a lesson on stormwater pollution led by Blue Water Baltimore staff. After learning about the issue in the classroom, the class moved outside to tour the storm drains around their school. With the help of a community organizer from Belair-Edison Neighborhoods, Inc., the students distributed informational flyers around the neighborhood to inform the community about stormwater runoff and their upcoming murals.

The students formed design teams and brainstormed images and slogans for their storm drains. On the day of their annual Green Fair, the students were ready to get out and paint! Through teamwork, compromise and creativity, the students completed four unique, beautiful and educational storm drain murals.

Green School students present and discuss their mural designs.



Turtle mural designed and painted by students from the Baltimore Green School.

VI.THANK YOUS

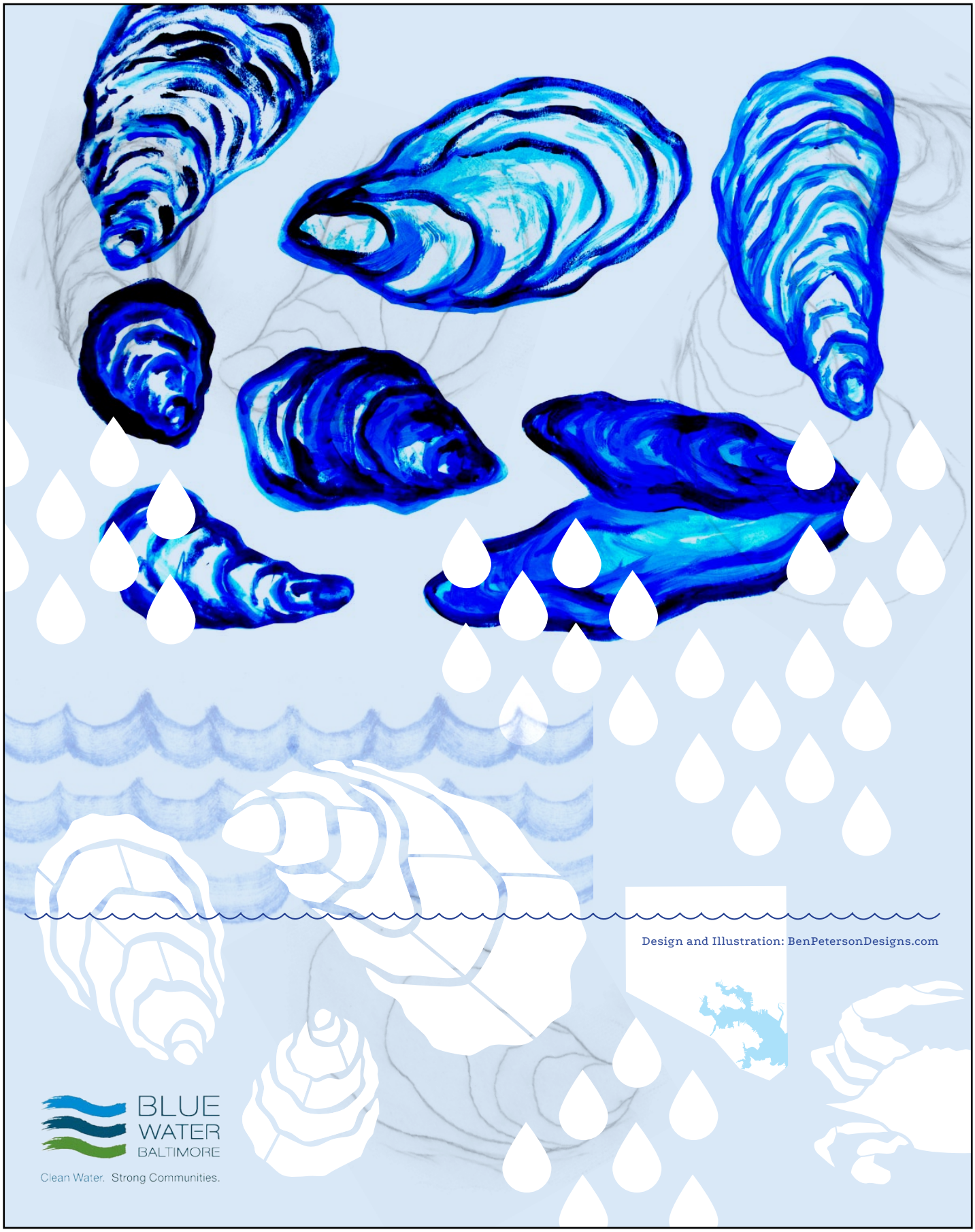
BLUE WATER BALTIMORE'S STORM DRAIN ART PROGRAM IS THE PRODUCT OF:

- 901 Arts, youth artists and Director Sarah Tooley: *www.901arts.org*
- Baltimore City Department of Public Works: *publicworks.baltimorecity.gov*
- Baltimore Community Foundation: *www.bcf.org*
- Banner Neighborhoods and the clever young people in their after-school program who came up with the slogan, "Trash in the street pollutes what we eat:" *www.bannerneighborhoods.org*
- Ben Peterson, Graphic Design: *www.benpetersondesigns.com*
- Chesapeake Bay Trust: *www.cbtrust.org*
- Healthy Harbor, an initiative of the Waterfront Partnership of Baltimore, Inc: *www.healthyharborbaltimore.org*
- MICA's Design for Change Course Spring 2012: *www.micasocialdesign.com*
- Patterson Park Audubon: *pattersonpark.audubon.org*
- Program support Fall 2012, Amy Dewan
- And the many community members who shared their ideas and visions throughout this process.

Storm Drain Artwork created by Michelle Luong with Boone St Farm

Written and Edited by Blue Water Baltimore staff, Lauren Poor and Lisa DeGuire.

Cover photographs: Storm drain murals painted by Sharp Kids in Sharp Leadenhall (left, photo by Shan Gordon) and by students at Southwest Baltimore Public Charter School (right).


Design and Illustration: BenPetersonDesigns.com
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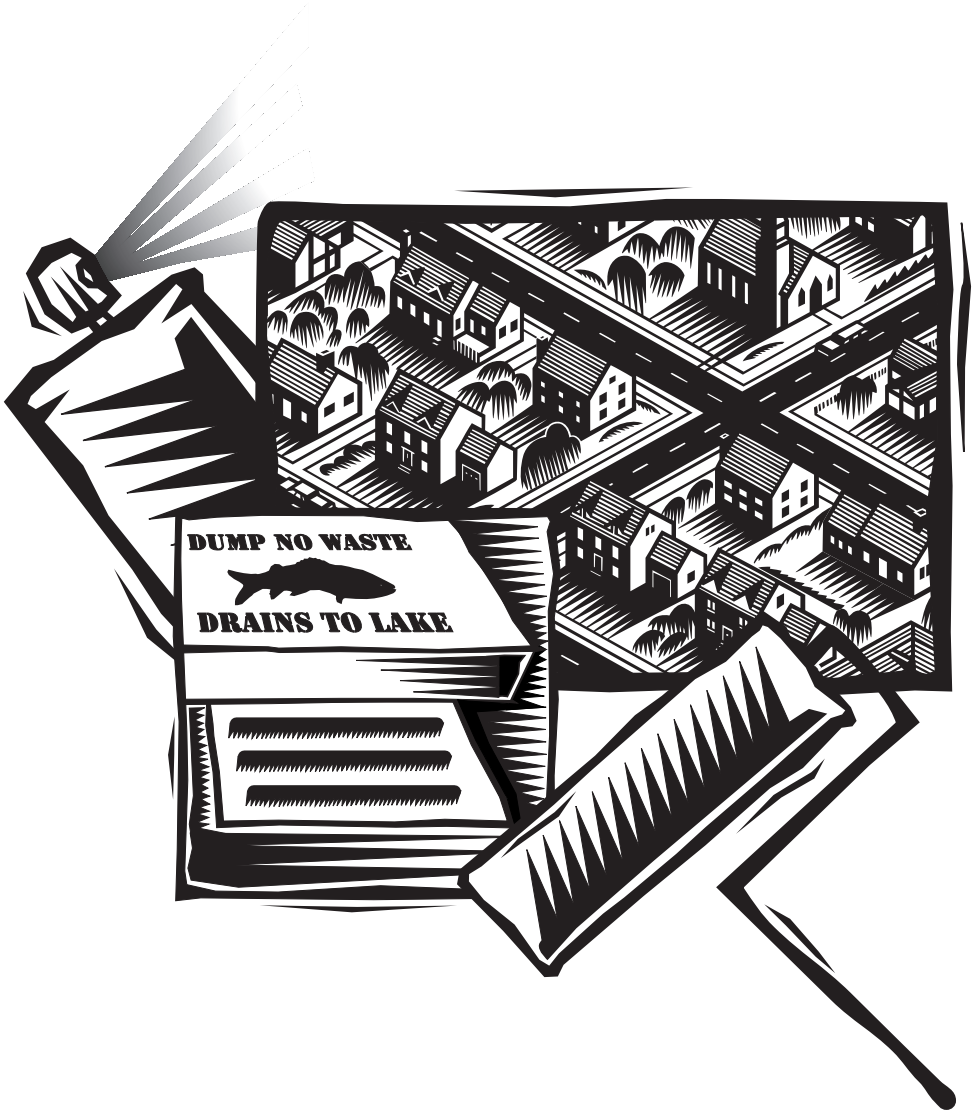
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

STORM DRAIN STENCILING



A MANUAL FOR COMMUNITIES

GI-212 4/96

STORM DRAIN STENCILING

A MANUAL FOR COMMUNITIES

This manual was produced through a grant awarded under Section 319(h) of the Clean Water Act by the Environmental Protection Agency.

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TABLE OF CONTENTS

INTRODUCTION 1
WHAT IS NONPOINT SOURCE POLLUTION? 1
WHAT ARE NONPOINT SOURCE POLLUTANTS? 1
HOW DO NPS POLLUTANTS REACH WATERWAYS? 1
HOW DO NPS POLLUTANTS AFFECT WATER QUALITY? 1
WHAT IS THE STATE DOING ABOUT NONPOINT SOURCE POLLUTION? 2
WHAT IS STORM DRAIN STENCILING AND WHY IS IT NECESSARY? 2

WHAT ARE THE BASICS OF STORM DRAIN STENCILING? 3
- Materials 3
- Content of the Message 4
- Placement of the Message 5

HOW DO STORM DRAIN STENCILING PROGRAMS OPERATE? 5
- Safety 6
- The City's Role 6

WORKING WITH VOLUNTEERS 6
- Recruiting Volunteers 7
- Training Volunteers 7
  - Technique 7
  - Safety 7
  - Information Tracking 8
- Recognizing Volunteers 8

STENCILING AS AN EDUCATIONAL TOOL 8

ASSESSING THE EFFECTIVENESS OF STORM DRAIN STENCILING 9

PROFILES OF FIVE TEXAS PROGRAMS
- Corpus Christi 10
- Houston 11
- Fort Worth 11
- Plano 12
- North Central Texas Council of Governments 12

APPENDICES
- A. Liability Waivers for Volunteers 16
- B. Materials List 18
- C. Stenciling Instructions 21
- D. Safety Procedures for Volunteers 22
- E. Data Collection Forms 23
- F. Recognition Certificate 25
- G. Public Education Materials 26
- H. News Release 29
- I. Public Service Announcements 30
- J. Sample Newspaper Clippings 31

WE WANT TO HEAR FROM YOU 33
Please evaluate this manual and let us know about your storm drain stenciling projects.

INTRODUCTION

This manual is a how-to guide for communities interested in starting a Storm Drain Stenciling Program to reduce nonpoint source pollution. It was developed by the Texas Natural Resource Conservation Commission's CLEAN TEXAS 2000 program under a pollution prevention grant from the U.S. Environmental Protection Agency (EPA). The manual covers a range of methods for labeling storm drain inlets and offers examples of programs operating in selected Texas cities. The Texas Natural Resource Conservation Commission (TNRCC) does not endorse one labeling approach over another, and the manual does not represent a complete catalog of programs in Texas. Its purpose is to give cities and community groups the tools to launch a successful citizen-education effort to reduce dumping and protect local water supplies.

WHAT IS NONPOINT SOURCE POLLUTION?

Nonpoint source (NPS) pollution is caused when rainfall carries pollutants from a wide variety of sources into surface water or ground water. The term distinguishes pollution that is diffuse in its origins from pollution that is traceable to a single "point source," like a factory or wastewater treatment plant.

WHAT ARE NONPOINT SOURCE POLLUTANTS?

Many products and materials we use in daily life become nonpoint source pollutants when they reach a body of water. NPS pollutants can be chemicals, like pesticides and fertilizers. They can be automotive products like gasoline, motor oil, antifreeze and road salt. They might be common household items like paint and solvents. They can even be natural materials like soil, animal wastes, grass clippings and fallen leaves.

HOW DO NPS POLLUTANTS REACH WATERWAYS?

Sometimes NPS pollutants wash directly into a creek, river, lake or bay. Construction activity, for example, can send soil and debris directly into nearby creeks and streams. Agricultural activities also may generate NPS pollutants, when fertilizers, pesticides, livestock wastes and eroded soil are not managed properly and are allowed to wash directly into nearby surface waters.

In urban areas, though, the most common route for NPS pollutants is the network of storm drains that carry excess rain water away from streets and directly into waterways. NPS pollutants can be washed by rainfall from lawns and streets into the storm drains, or they can be dumped there deliberately by people who are careless about the environment or who mistakenly think the storm drains flow to a water treatment plant.

HOW DO NPS POLLUTANTS AFFECT WATER QUALITY?

Just as the nature of NPS pollutants varies widely, so do their effects on water quality. Pesticides, antifreeze and motor oil contain toxic chemicals that are harmful to humans,

animals and plants. Just one quart of motor oil can ruin the quality of 250,000 gallons of water. The phosphorus and nitrogen in fertilizers, pet and livestock wastes and decomposing leaves and grass can cause large amounts of algae to grow, which depletes the oxygen level in the water and can lead to fish kills. Animal wastes also introduce harmful bacteria and other pathogens into water supplies. Sediment from soil erosion or construction activity can reduce the clarity of water and block sunlight needed by aquatic plants and fish. Litter and debris, particularly plastic items that float, spoil the beauty of lakes, rivers and bays and can be harmful to fish and birds who mistake them for food.

WHAT IS THE STATE DOING ABOUT NONPOINT SOURCE POLLUTION?

The TNRCC receives funding each year from the EPA to support state and local programs to control and prevent nonpoint source pollution. Since 1990, the TNRCC has funded more than 60 pollution prevention and abatement projects across the state.

Grant projects target water quality problems in both surface and ground water. Some control pollution through the design, building and testing of *structural* improvements, like an artificial wetland or a new type of sedimentation basin. Others focus on *non-structural* management practices, which include such things as replanting roadside ditches with vegetation to better filter storm water runoff and mapping potential pollution sources to protect drinking water wells.

In addition to the NPS grant program, the TNRCC administers programs that encourage **voluntary citizen action** to reduce nonpoint source pollution. These include a household hazardous waste collection program; a used motor oil and filter collection program; "Texas Watch," which trains citizen volunteers to monitor local water quality; an agricultural waste pesticide collection program, which collects canceled or banned pesticides; the Texas Country Cleanup project, which organizes events in rural areas to collect empty pesticide containers, batteries, scrap tires, and used motor oil and oil filters; the Lake and River Cleanup program, which organizes volunteers to remove litter from public waters and shorelines; and the Source Water Protection Program, which assists communities in developing and implementing site-specific programs to protect drinking water.

WHAT IS STORM DRAIN STENCILING AND WHY IS IT NECESSARY?

Many people mistakenly believe storm drain inlets empty to water treatment facilities, so they pour chemicals or sweep debris directly into storm drains. This dumping greatly increases the level of nonpoint source pollutants (leaves, soil, litter, fertilizers, pesticides, street residues) already present in urban storm water runoff and can contribute substantially to a decline in water quality.

More communities are working to reduce nonpoint source pollution by labeling storm drain inlets with messages warning citizens not to dump polluting materials. These storm drain stenciling projects usually are conducted by volunteer groups in cooperation with local authorities. The stenciled messages–usually a simple phrase like "No Dumping! Protect

Our Water"–remind would-be dumpers and passersby that the storm drains connect to local water bodies and that dumping pollutes those waters.

In recent years, as states and local governments have learned more about how nonpoint source pollution degrades water quality, storm drain stenciling efforts have sprung up in communities across the country. The Center for Marine Conservation (CMC), a nationwide environmental organization dedicated to protecting marine life, estimates that 97 groups in 33 states and Canada now are involved in storm drain stenciling. In 1992, the CMC launched its "Million Points of Blight" campaign to educate people about the connection between storm drains and local waterways and to involve them in stenciling efforts. Today, the CMC acts as a clearinghouse for information on storm drain stenciling, referring interested organizations to existing community programs or providing instructions on how to start new programs. The CMC's headquarters in Virginia can be reached at 804/851-6734.

WHAT ARE THE BASICS OF STORM DRAIN STENCILING?

This section describes a range of storm drain stenciling approaches. Projects vary widely from community to community in terms of the materials used, the message conveyed and the physical placement of the message.

MATERIALS

Most communities use stencils and paint to label storm drains. The city of Houston uses a single stencil to imprint its slogan, "You Dump It, You Drink It. No Waste Here," directly onto the concrete above the inlet. Some communities use a two-phase stenciling process. They first paint a rectangular area white to create a background for the message. When this layer is dry, they stencil the message on top of it in a contrasting color. Corpus Christi, for example, uses white paint for the background and green paint for the message "No Dumping! Drains to Bay."

The most commonly used stencils are made of Mylar, a flexible plastic material that can be cleaned and reused many times. Stencils also can be made from cardboard, aluminum or other metal.

Paint (or ink) can be sprayed on or applied by brush or roller. Spray paint is quickest and probably the easiest to apply neatly. However, cities that do not meet federal air-quality standards ("non-attainment areas") may wish to avoid spray paints, since many contain air-polluting propellants. Houston (a non-attainment area) uses rollers and ink pads for this reason. Many Texas cities use special "environmentally friendly" paint that contains no heavy metals and is low in volatile organic compounds (VOCs). Empty steel aerosol cans and paint cans can be recycled in many communities.

Not all communities use stencils and paint to label their storm drains. Some have opted for permanent signs made of aluminum, ceramic, plastic or other durable materials. The city of Plano uses a 6" x 6" ceramic tile. Fort Worth uses a 4" x 8" aluminum plaque. These signs last longer than stenciled messages (Plano expects its tiles to last five to 10 years) and they require only glue to affix them to storm drain inlets. This ease of application is particularly important when volunteers provide much of the labor.

Many city officials prefer the permanent signs because they are neater than stencils, which sometimes look smeared and may be hard to read from a distance. Plano now requires contractors who build storm drains to place the city's storm drain tiles on new and replacement storm drains. On the down side, permanent signs can be more expensive than painted stencils. Ceramic tiles cost $5 to $6 each. A Mylar stencil, by contrast, costs about 45 cents per linear inch and can be used for 25 to 500 stencilings, depending on whether paint is sprayed on or applied with a brush or roller. In addition, tiles or plaques can be dislodged by pedestrian traffic if they are disturbed before the glue dries.

CONTENT OF THE MESSAGE

Nearly all signs and stencils used on storm drain inlets discourage deliberate dumping. Some communities focus on a particular material such as motor oil while others warn against the dumping of chemicals.

Regardless of the materials, the most important idea to get across is that storm drains lead to open waterways. Often communities will specify which water body the inlet drains to, saying for example, "drains to creek" or "drains to lake." Some even name the river, lake or bay. The following are examples of possible messages:

NO OILS OR CHEMICALS

DRAINS TO BAY

(Bay City)

(North Central Texas COG)

NO DUMPING

DRAINS TO RIVER

(Houston-Galveston Area COG)

NO DUMPING. DRAINS TO WATER SOURCE.

NO DUMPING. DRAINS TO BAY (CREEK, STREAM, RIVER, LAKE, OCEAN).

DON'T DUMP. DRAINS TO CREEK (STREAM, RIVER, LAKE, BAY, OCEAN).

DON'T DUMP. PROTECT OUR WATER.

YOU DUMP IT, YOU DRINK IT. NO WASTE HERE.

SI USTED LO TIRA, USTED LO TOMA.

DUMP NO WASTE. DRAINS TO BAY. (CREEK, STREAM, RIVER, LAKE, OCEAN)

NO OIL OR CHEMICALS. DRAINS TO BAY.

DO NOT DUMP. FLOWS TO BAY (CREEK, STREAM, RIVER, LAKE, OCEAN) .

DO NOT DUMP. FLOWS TO TRINITY RIVER.

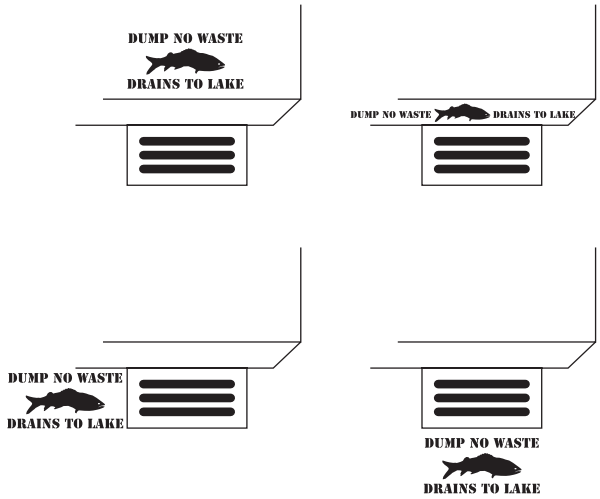
Communities often combine words and pictures to convey their message. The graphic portion may reinforce the verbal message by depicting the pathway from storm drain to water body in some stylized fashion. Graphics also may refer to some topic of local interest. For instance, Houston uses a picture of a shrimp on one of its stencils to remind passersby that the Galveston Bay shrimping industry can be hurt by pollutants dumped in Houston. Fort Worth superimposes its anti-dumping message against the silhouette of a largemouth bass, one of the most popular game fish in the southern United States. Others use pictures of windsurfers or sailboats to remind people that dumping pollutants affects the recreational value of local waterways.

Communities with large numbers of Spanish speakers may wish to develop signs or stencils in both English and Spanish. Houston has done this with its "You Dump It, You Drink It" message. Some communities opt for a simpler approach, using a graphic alone, without words. The North Central Texas Council of Governments offers cities such a stencil. It shows an oil can in a circle with a slash through it.

PLACEMENT OF THE MESSAGE

Messages may be positioned in several ways. Some are placed flat against the sidewalk surface just above the storm drain inlet. Others are placed on the curb facing the street. Still others are located on the street itself, either just upstream of the storm drain or on the street in front of the drain. However, messages placed on the street may wear out sooner. (See Figure 1.)

Figure 1



NOTE: Many storm drain inlets are on curbs.

Potential dumpers will see the message in any of these locations. The decision about where to place the message also should take into account who *else* will see it. Signs facing the street will be seen more easily by motorists; signs aligned with the sidewalk or with the street itself are more likely to be seen by pedestrians. It's important that even those who would not dump motor oil down a storm drain be exposed to the stenciled messages. Because the signs raise awareness about the connection between storm drains and water bodies, they help deter littering, overfertilizing and other practices that contribute to nonpoint source pollution.

HOW DO STORM DRAIN STENCILING PROGRAMS OPERATE?

Storm drain stenciling programs are carried out in a variety of ways. In some cases, cities use their own public works staff to do all labeling. The city of Hurst, Texas, (population

30,000) took this approach and has labeled all 1,200 of its storm drain inlets. Plano has used its own crews to place 1,200 ceramic tiles, and Fort Worth has done most of its storm drain labeling in-house as well. Some cities feel that having their own crews do the work produces better results and eliminates liability and safety concerns. Recently, though, Fort Worth sponsored a neighborhood association to label some drains. Both Fort Worth and Plano plan to work with volunteer groups in the future.

A more common arrangement for storm drain stenciling programs is for volunteer groups to provide the labor and the city to provide supplies, safety equipment and other forms of support.

This public-private partnership may be initiated by either side. If a civic association or local environmental group initiates the project, it must be sure to obtain the support and cooperation of local authorities. Storm drains are city property and local ordinances or policies may prohibit marking them without permission. Most cities also will want certain safety measures in place before volunteers set to work.

SAFETY

Since stenciling projects take place on city streets, volunteer safety is of utmost importance. The city may wish to designate lower-traffic residential areas as targets for volunteer stenciling and provide safety equipment and training. Most programs require that stenciling be done in teams, with at least one person designated to watch for traffic. Adult supervision is needed when the volunteers are school children or members of a youth group. Most cities also require participating volunteers (or their parents) to sign a waiver of liability. (See Appendix A for examples of waivers.)

THE CITY'S ROLE

In many cities, the public works or water quality department will designate a person to coordinate stenciling projects by volunteer groups. Coordination may mean any of the following:

- Providing stenciling kits containing all materials and tools needed to carry out a stenciling project. (See Appendix B for examples of the contents of kits.)
- Furnishing a list of locations or a map of storm drains to be stenciled.
- Training volunteers on safety procedures and on the technique for using stencils or affixing signs.
- Providing safety equipment: traffic cones, safety vests, masks and/or goggles (if spray paint is used) and gloves (if glue is used).
- Providing incentives and rewards for volunteers (badges, T-shirts, certificates).
- Providing pollutant tracking forms to collect data on serious instances of dumping.

WORKING WITH VOLUNTEERS

Since most storm drain stenciling programs depend heavily on volunteer labor, organizers or coordinators must be skilled in the art of recruiting, training, managing and recognizing volunteers. This section focuses on how to work successfully with volunteers.

RECRUITING VOLUNTEERS

Cities can spread the word about storm drain stenciling to volunteer organizations through many channels. The North Central Texas Council of Governments distributed a pamphlet on the program to area service organizations. Cities can mail information on the program to civic groups, youth groups, schools, environmental clubs, chambers of commerce or volunteer centers. The city of Houston distributed a brochure to local organizations, placed articles in local magazines and took out newspaper ads to publicize its program. Houston and Corpus Christi both included information about storm drain stenciling in an environmental insert placed in the local newspaper. Program coordinators can make presentations at community meetings and encourage word-of-mouth communications about the program. The city of Plano developed a public service announcement about its program.

Most volunteer groups do their storm drain stenciling projects on a Saturday morning. The program has been popular with Girl Scouts, Boy Scouts, 4-H clubs, environmental clubs, church youth groups, neighborhood associations, grade school classes and a wide range of civic and service organizations.

TRAINING VOLUNTEERS

Before participating in a stenciling project, volunteers need training in three areas: technique, safety and information tracking.

TECHNIQUE

Instructions on how to stencil a storm drain vary with the materials the city uses. Spray painting requires a different technique than rolling or brushing paint onto a stencil. Most projects have certain elements in common as listed below.

- First, the area to be labeled must be cleaned with a wire brush.
- Volunteers are warned against applying too much paint, which can make a stencil unreadable.
- Wait a few minutes before the stencil is removed to avoid paint smearing.
- Volunteers are advised to wear old clothes.

Appendix C contains sample stenciling instructions.

SAFETY

Storm drain stenciling is normally conducted in teams of two or more people. The following are common safety guidelines.

- Groups of young people must have an adult supervise each team.
- One person on each team is assigned to watch for traffic.
- All participants should wear safety vests provided by the sponsoring city.
- If spray paint is used for stenciling, participants also should wear goggles or masks.
- If glue is used to affix permanent signs, participants should wear rubber gloves.
- If volunteers are working in the street, they must use traffic cones and/or barricades provided by the city.

Sample safety instructions are included in Appendix D.

INFORMATION TRACKING

Storm drain stenciling projects provide cities with valuable information about nonpoint source pollution. Cities typically have thousands of storm drain inlets in their jurisdictions and public works staffs cannot inspect them all. Most cities ask participants in storm drain stenciling projects to note storm drains that are clogged with debris or show obvious signs of dumping. This enables city crews to target cleanup efforts. Volunteers should be instructed on what kinds of pollutants to look for and how to fill out data cards.

Volunteers also should list the locations of all storm drains labeled during the project, so the city can keep track. Sample data cards are included in Appendix E. Regardless of whether tracking forms are used, it is a good idea to assemble the participants after the event to talk about what they have found. Their reactions and impressions can help organizers improve future stenciling projects.

RECOGNIZING VOLUNTEERS

For any volunteer project to be successful, volunteers must feel they have done something worthwhile. Communities active in storm drain stenciling have developed a variety of ways to recognize volunteers. The following are a few examples:

- Provide each participant with a certificate of appreciation and/or letter of thanks signed by the mayor. (See Appendix F for a sample certificate.)
- Distribute T-shirts, hats, badges or other gifts to each participant after the event. The city of Austin distributes plastic water bottles to participants *before* the event so they can have a supply of water while they're working. "I helped curb pollution" is the message on the bottles.
- Hold a picnic or small party after the event, with refreshments donated by a local business.
- Provide free coupons for pizza, hamburgers, ice cream or movies donated by local merchants.
- Take pictures of stenciling teams before, during and after the event to create a pictorial record of volunteers' activity.

STENCILING AS AN EDUCATIONAL TOOL

A storm drain stenciling project affords many opportunities for public education. The labeled storm drains themselves become public education tools, reminding potential polluters, motorists, pedestrians and area residents that storm water runoff flows to area water bodies. The knowledge that whatever enters a storm drain enters the nearby creek, river or lake makes people more conscientious about littering, overfertilizing, sweeping grass clippings into the gutter and other practices that aggravate nonpoint source pollution.

Corpus Christi and other cities have volunteers distribute door hangers in the targeted neighborhoods to notify residents that storm drain stenciling is taking place. The hangers also explain the purpose of the project and offer tips on how citizens can reduce nonpoint source pollution. (See Appendix G for a sample door hanger and brochure.)

Cities or community groups can notify daily and weekly newspapers to get advance coverage of the planned stenciling event. A news release issued for the day of the event can

draw TV and/or daily newspaper coverage. (See Appendix H for sample news release.) Newspapers may choose to cover the event itself as an environmental feature story to further heighten public awareness. Public service announcements (PSAs) distributed before the event also will help reinforce the message. Sample PSAs may be found in Appendix I.

It is important to remember that to be effective a city does not have to stencil every storm drain. Large cities have thousands of inlets and it would be impractical to cover all of them. In fact, to do so might defeat the public education purpose because if people see the message on every drain, it may cease to register with them.

It is also important to view storm drain stenciling as one part of a larger educational campaign to reduce nonpoint source pollution. For the message on a storm drain to sink in, people need to hear it explained in other forums. Cities may want to develop TV, radio and print ads or public service announcements to reinforce the idea that storm drains lead to local waterways and that dumping pollutes those waters. Community groups could approach a local television station about producing and running a free PSA on storm drains and nonpoint source pollution. One reason the Texas Department of Transportation's "Don't Mess With Texas" anti-littering campaign succeeded was that the department conveyed its message through TV and radio ads and reinforced the slogan by printing it on the trash barrels located along the highways.

The city of Houston used "You Dump It, You Drink It" as one of its storm drain messages in part because the slogan had already been used in a joint city/TNRCC public education effort to encourage motor oil recycling. The TNRCC can make available to any interested community a television PSA, radio scripts and print ads featuring this slogan (call 512/239-3159).

ASSESSING THE EFFECTIVENESS OF STORM DRAIN STENCILING

By raising public awareness of nonpoint source pollution, storm drain stenciling programs should discourage practices that generate nonpoint source pollutants. As with any public education project, however, it is difficult to precisely measure the effect storm drain stenciling programs have on human behavior. Nor is it easy to measure reductions in certain components of nonpoint source pollution, which by definition is diffuse in origin.

Some cities attempt to assess the effectiveness of storm drain stenciling programs by periodically examining water samples from targeted storm drain *outfalls* (places where storm drains empty into a body of water). If the storm drains leading to a particular outfall have been labeled, and if the level of pollutants from that outfall declines over time, one can assume the labeling has had some deterrent effect.

The city of Fort Worth plans to track pollutant levels at 600 storm drain outfalls over the next five years to determine whether storm drain labeling and other pollution prevention efforts have improved water quality in local creeks. The city of Plano is now collecting baseline water quality data from targeted outfalls and will take periodic samples to measure program results in the future.

Monitoring outfalls is time-consuming, and periodic testing for component NPS pollutants can be expensive. Some cities infer success from increases in the volume of used

motor oil delivered to used-oil recycling centers. Others measure success in terms of how many drains are stenciled and the number of requests received by volunteer groups to participate in the program. They can also take into consideration the number of cleanups conducted by the city as a result of reports made by volunteers.

Citizen groups can be trained to monitor water quality in local waterways through the TNRCC's *Texas Watch* program.

TEXAS WATCH

The TNRCC's Texas Watch program educates individuals about the causes and effects of pollution by training citizen groups to monitor water quality. Currently, there are more than 300 volunteer monitoring groups in Texas. Each volunteer undergoes training in sampling techniques approved for the Texas Watch program by EPA.

In addition to training citizens in water quality monitoring, Texas Watch seeks to improve communications and resolve conflicts by coordinating partnerships among citizens, businesses, industry, and local and regional authorities.

Texas Watch is an ideal project for science clubs, Boy Scouts, service organizations and citizens interested in preserving water quality in their communities. Since volunteer monitoring efforts are targeted to locations not monitored by the TNRCC field staff, data collected by Texas Watch volunteers is extremely useful to the TNRCC. It helps fill in gaps in the agency's knowledge of local water quality and thereby assists the agency in making environmental decisions.

PROFILES OF FIVE TEXAS PROGRAMS

CORPUS CHRISTI

Message: Do Not Dump. Drains to Bay.
Graphic: Windsurfer, fish
Method: Aluminum stencil; message spray painted in green paint against a white background
Program Start Date: October 1993

Corpus Christi has stenciled about 800 storm drains out of a total of 13,000. The city relies entirely on volunteers to do the stenciling. It coordinates 10 to 12 volunteer stenciling projects each year, working with organizations such as the Girl Scouts and Boy Scouts, the AT&T Telephone Pioneers, the Southwestern Bell Telephone Pioneers and local environmental science clubs.

The city uses metal stencils and spray paint to print the message "Do Not Dump. Drains to Bay" in green letters against a white background. Graphics include a fish and a windsurfer. The stencils cost approximately $100 each and are paid for through the water department's operating funds. The city has six stenciling kits available for volunteers and provides door hangers for distribution to residents of the neighborhood where stenciling takes place.

Before each event, the city's project coordinator provides volunteer training, which includes an orientation to the program, directions on how to use tne stencils and instruction on safety procedures. After the event, each volunteer is given a T-shirt, designed especially for the storm drain stenciling program, and the volunteer group receives a framed certificate of appreciation.

In addition to the stenciling kits, the city provides volunteer groups with safety vests, traffic cones and a traffic flag.

HOUSTON

Message: You Dump It, You Drink It. No Waste Here.
Dump No Waste. Drains to Bay.
Graphic: Shrimp (on "Dump No Waste" message)
Method: Message rolled in ink across Mylar stencil
Program Start Date: Spring 1995

About 300 storm drains have been labeled in Houston by groups like the Serve Houston Youth Corps, Boy Scouts and Girl Scouts and grade school students.

The city uses a Mylar stencil and ink to roll onto inlets its anti-dumping messages. The "You Dump It, You Drink It" message was also part of an extensive citywide public education campaign to encourage motor oil recycling that had included outdoor billboards and paid radio PSAs.

Ten stenciling kits are available along with safety vests and traffic cones for each event. The Mylar stencils were donated by the Gulf Coast Waste Disposal Authority through the Houston-Galveston Area Council of Governments. HGAC was instrumental in developing the Houston stenciling program and others in the area.

The city distributes an English / Spanish brochure to promote its storm drain stenciling program. It also publicizes the effort through newspapers, magazines and community meetings. Each participant receives a thank-you letter and a certificate of appreciation from the mayor.

FORT WORTH

Message: Don't Dump! Drains to Creek.
Graphic: Large mouth bass
Method: Aluminum plaque glued onto inlet
Program Start Date: July 1993

Fort Worth recently switched to reflective aluminum plaques (the material used for highway signs), which are neater, more durable and easier to apply. So far, about 500 storm drains have been labeled.

The 4" x 8" plaque shows the silhouette of a large mouth bass in white against a bright blue background. Superimposed on the image of the fish in blue letters is the slogan "Don't Dump! Drains to Creek." The plaque is placed on top of the storm drain inlet and attached with adhesive glue.

For the most part, Fort Worth has used its own public works staff to mark storm drains. The city sponsored one neighborhood association project in 1995 and plans to use more volunteers in the future.

Fort Worth has developed a sophisticated method for evaluating its program. The city plans to track pollutant levels at 600 storm drain outfalls over the next five years to determine whether storm drain labeling and other pollution prevention efforts have improved water quality in local creeks.

PLANO

Message: No Dumping. Drains to Water Source.
Method: 6"x 6" ceramic tile glued to inlet
Program Start Date: Summer 1995

Plano attaches to the top of its storm drain inlets a bright blue 6" x 6" ceramic tile bearing the message "No Dumping. Drains to Water Source." Plano had these tiles specially designed and manufactured for its storm drain program. The city wanted a marker that would be easy to apply and maintain, durable and aesthetically pleasing. Tiles are paid for through the city's municipal drainage fee program.

Plano has used its own public works crews to label more than 1,200 inlets. No volunteers have been used to date, but the city plans to work with Eagle Scouts and other service groups beginning in the spring of 1996.

The city works closely with Keep Plano Beautiful to educate the public on storm water management practices, composting, and proper disposal of household hazardous waste and motor oil. Plano public schools focused on storm water education for Earth Week 1996, and the city addresses storm water management through newsletters, presentations and exhibits.

The city of Plano now collects baseline water quality data from targeted storm water outfalls and will take periodic samples to measure program results in the future.

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

Message: Don't Dump. Protect Our Water.
Graphic: Fish, oil can
Method: Spray-painted message using Mylar stencil
Program Start Date: May 1993

The North Central Texas Council of Governments (NCTCOG) has been a major catalyst for community storm drain stenciling programs in the north central Texas region since 1993. The stenciling projects were part of the region's water-quality and pollution-prevention objectives for the Trinity River Basin.
NCTCOG developed two stencils for the regional program. One says "Don't Dump. Protect Our Water" and the other is a stand-alone graphic depicting spilled oil trailing a fish under water. An estimated 7,500 storm drains in 22 communities throughout

the region have been labeled with one of these logos. NCTCOG also developed sample press releases, fact sheets and tracking cards for use by participating communities.

One innovative feature of the NCTCOG program is its use of a state used oil grant to give community groups incentives to stencil storm drains. Under the program, volunteer groups could earn $140 for stenciling a minimum of 15 storm drains. The program proved very popular with youth groups and other organizations as a means to raise funds.

APPENDICES

City of Houston

STORM DRAIN STENCILING PROJECT

I am authorized to act on behalf of _____ (called the "Sponsor"). I have carefully read and understand the guidelines for the Storm Drain Stenciling Project, (called the "Project"). In order to participate in the Project the Sponsor assumes the following responsibilities:

1. Participants in the Project are solely under the supervision of the Sponsor.
2. Waivers of Liability will be signed for each participant prior to commencement of the Project.
3. Sponsor will train each participant in pedestrian and other relevant safety rules. All participants will be evaluated by Sponsor to determine if they are responsible individuals who will be able to abide by the rules of the road and use due caution while participating in the project.
4. Sponsor will use stencil kits and instructions as provided by the City of Houston only for the purposes intended.
5. Sponsor will consult with the City of Houston in the selection of Project sites.

_____ _____
Signature Date

_____ _____
Print Name Organization

_____
Office or capacity of person signing

LIABILITY WAVER

I, the undersigned, being of lawful age or the parent or legal guardian of the volunteer involved in the Storm Drain Stenciling Project (Project), in consideration of being allowed to participate in the Project, I hereby release, discharge and forever acquit the City of Houston, a municipal corporation, and its officers, agents, and employees from any and all actions, causes of action, claims or any other liabilities whatsoever, known or unknown, or may arise in the future, on account of or in any way related to or arising out of my participation in the Project.

Further, I assume liability for any non-participants who accompany me.

PARTICIPANT'S NAME: (Please print)

_____

AGE: _____

SIGNATURE OF PARTICIPANT OR LEGAL GUARDIAN:

_____

DATE: _____

APPENDIX -B-

SAMPLE MATERIALS LIST

BORROWING STENCILS

ORDERING STENCILS

MATERIALS

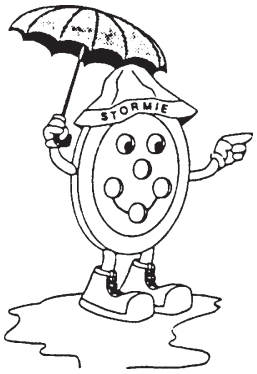
Many cities and organizations make it easy for individuals to stencil neighborhood inlets by providing kits which include all the materials needed. Before incurring the expense of assembling these materials, contact your Public Works Department to see if they sponsor a storm drain stenciling program and can provide these kits. If not, contact the Center for Marine Conservation (CMC) to find out if there is a state agency, municipality or organization in your area that is participating in their "Million Point of Blight" program which can loan you at least the stencils.

- ✓ Stencil(s) (see enclosed ordering or borrowing information)
- ✓ Paint that meets your state's standards. Make sure the paint meets any standards (color, type) set by the agency that gave you permission to stencil. In some areas, oil-based traffic or highway paints can be purchased at local paint stores. Some areas require a flat water-based latex. CMC recommends either white or green depending on the surface being painted. Read the label/instructions and ask if you can return any unused cans of paint before purchasing.
- ✓ Paint brushes (3") and stirrers (unless you are using spray paint)
- ✓ "WET PAINT" signs
- ✓ Masking tape
- ✓ Drop cloths
- ✓ Trash bags (2) - one for dirt and debris cleaned from the storm drain area and one for soiled stenciling supplies
- ✓ Wire brush
- ✓ Whisk broom and dust pan
- ✓ Paper towels or old rags
- ✓ Traffic safety vests and flags
- ✓ Orange traffic cones, if available
- ✓ Pencil/paper/clipboard/CMC's standardized data card for recording observations and activities
- ✓ For cleanup:
  - Newspaper and rags
  - Coffee cans and lids
  - Mineral spirits or paint thinner (small amount)

IMPORTANT:
Remember to bring written approval from the agency that gave you permission to stencil.

BORROWING STENCILS

Center for Marine Conservation



Susan Macleod/Laurie Halperin
Center for Marine Conservation
306-A Buckroe Avenue
Hampton, VA 23664
(804) 851-6734
(804) 851-4183 FAX

The Center for Marine Conservation has a list of 89 groups (states, municipalities, and organizations) in 32 states and Canada which are participating in their ***Million Points of Blight*** Network. Please contact CMC about your stenciling project to find out if any groups in your area have stencils or other materials for loan. If not, mylar stencils (DON'T DUMP - DRAINS TO WATERWAY) can be borrowed from CMC via the STORM DRAIN STENCIL ORDER FORM below.

- -CUT HERE- -

STORM DRAIN STENCIL ORDER FORM

Name _____ Name of Group _____

Street Address _____ Number of Participants Expected _____

City/Town, State, Zip Code _____ City/Town, State of Stenciling _____

Phone Number - work or home? _____ Date of Stenciling _____

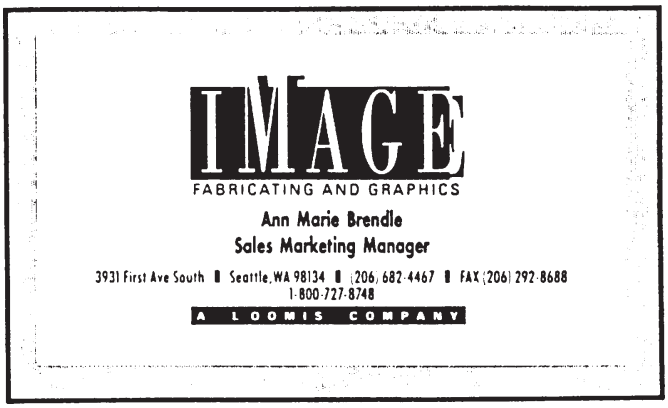
Center for Marine Conservation

Date Received _____ Stencil Number _____

Date Shipped _____ Comments _____

For Office Use Only

ORDERING STENCILS SAMPLE



Storm Drain Stencils

Available From: Image Fabricating and Graphics

Material: 10 Mil Mylar

Size: 15" x 26"

Versions:
DUMP NO WASTE - DRAINS TO LAKE
DUMP NO WASTE - DRAINS TO RIVER
DUMP NO WASTE - DRAINS TO STREAM
DUMP NO WASTE - DRAINS TO BAY
DUMP NO WASTE - DRAINS TO GROUND WATER

• available with Small Mouth Bass or Salmon •

Pricing:

25	@	$10.25 each	750	@	$3.95 each
50	@	$9.57 each	1000	@	$3.60 each
100	@	$7.95 each	2500	@	$2.95 each
250	@	$5.75 each	5000	@	$2.50 each
500	@	$4.50 each			

• Minimum order of 25 quantity must be placed •

NOTE: *CLEAN TEXAS 2000 does not endorse any particular stencil vendor. This page is included as an example of an order form. Please contact CLEAN TEXAS 2000 at 512/239-3156 for information about other stencil vendors and ordering information.*

HOW TO STENCIL STORM DRAIN INLETS
STENCILING INSTRUCTIONS

1. Use a wire brush to remove any dirt or scum by scrubbing briskly.

2. With a whisk broom sweep surface free of dirt.

3. Lay the stencil above the face of the storm sewer, bending the stencil over the beam of the storm sewer. By doing this the first line of the stencil will be on the TOP of the storm sewer and the second line will be on the BEAM. If the stencil does not fit this configuration due to a small beam, use either side of the storm drain. Experiment with how the stencil will best fit and look. Do not stencil the bottom of the storm drain.

4. One or two people should hold the stencil securely in place or tape the stencil in place with heavy tape. Be careful not to move the stencil once in place.

5. If using spray paint or ink – shake can for one minute, hold spray can inverted about five inches from stencil. In a series of wide sweeping motions, spray one line at a time using a side to side motion until letters are uniformly covered. Do not spray too much – paint or ink will run under stencil making the words unreadable.

   If using a brush – stir contents well, brush over stencil being careful not to use too much paint or ink as it will run under stencil making the words unreadable.

   If using a roller – test that it is well inked by rolling on the pad and then testing on a newspaper. Do not put too much ink on the pad. A roller with too much ink will run making the words unreadable. It is best to roll over the stencil in a back and forth motion a number of times using a constant pressure until the words are legible.

6. When finished carefully lift the stencil.

7. If stenciled message turns out unreadable, do not try to clean it off again. The mess will only get bigger. Go to another storm sewer and learn from your mistakes. It's O.K.

8. Thank You.

SAFETY PROCEDURES AND TIPS
FOR STORM DRAIN STENCILING TEAM LEADERS

- Prior to stenciling ALL waivers must be signed and returned.
- Stenciling is a group activity, requiring a minimum of two people.
- There should NEVER be any stenciling done alone.
- Remember to wear clothing you do not mind getting permanent ink or paint on.
- All participants must wear safety vests.
- Bring paper towels or a rag to wipe up.
- Two plastic bags have been included in the stencil kits. One is for the used stencil, and is not garbage. The other is for the paper towels, gloves and any garbage picked up along the way.
- One person must be on the look out for on-coming traffic at all times.
- Traffic cones are used to alert vehicular traffic.
- All storm drains stenciled should be recorded on the Tracking Sheet and returned to the captain upon completion.
- Any storm drain with oil, paint or any other hazardous substance should be noted and reported to the captain.
- If there is a vehicle or other private property too close to the storm drain and stenciling would risk getting ink or paint on it -- do not stencil that storm drain.
- Orally review these safety procedures with your volunteer groups.

North Central Texas Council of Governments

STORM DRAIN DATA CARD

Please fill out one card for all of the drains that you stencil using this kit.

City of Stenciling Project _____

Name of Organization _____

Contact Person _____

Street Address _____

Daytime Phone _____ **Number of Storm Drains Stenciled** _____

Number of Participants _____ **Date(s) of Stenciling** _____

Please return completed data cards to your city contact person.

Non-Point Source Pollutants
Please keep track of the items found within six feet of each side of the storm drains you stencil by making tick marks in the areas below:

Grass Clippings _____
Leaves _____
Motor Oil _____
Paint _____
Pet Wastes _____
Street Litter/Plastics, including:
- Beverage Bottles _____
- Beverage Cans _____
- Caps/Lids _____
- Cigarette Butts _____
- Clothing/Scraps _____
- Fast Food Containers _____
- Foam Plastic Pieces _____
- Newspaper/Magazines _____
- Paper Bags _____
- Plastic Bags/Wrappers _____
- Plastic or Foam Cups _____
- Plastic Pieces _____

Street Litter/Plastics, cont:
- Six-Pack Holders _____
- Straws _____
- Other _____

Potential Non-Point Sources
Mark the number of storm drains that you stencil near each of the following:
Residential Area _____
Shopping Center/Parking Lot _____
Golf Course _____
Business District _____
Service Station _____
Farmland _____
Other _____

STENCIL TRACKING RECORD

Location

Street stenciled _____

Between streets _____ & _____

Number stenciled _____

Street stenciled _____

Between streets _____ & _____

Number stenciled _____

Street stenciled _____

Between streets _____ & _____

Number stenciled _____

Street stenciled _____

Between streets _____ & _____

Number stenciled _____

Street stenciled _____

Between streets _____ & _____

Number stenciled _____

Street stenciled _____

Between streets _____ & _____

Number stenciled _____

Total Number Stenciled _____

APPENDIX -F-

SAMPLE RECOGNITION CERTIFICATE

THANK YOU!

(recipient's name here)

has made an important contribution to the protection of (waterway here), by painting the openings of (community here) storm drains.

NO DUMPING

FLOWS TO BAY

_____
(Recognizing Agency Name Here)

_____
Date

YOUR CITY SEAL GOES HERE

Based on city of Palo Alto, California, certificate.

APPENDIX -G-

SAMPLE PUBLIC EDUCATION MATERIALS

DOOR HANGER

CORPUS CHRISTI FLIER

GRAND PRAIRIE FLIER

City of Corpus Christi

DOOR HANGER

Neighborhood Partners for clean water

The storm water drain inlets in your neighborhood have been stenciled with the message, "DO NOT DUMP - FLOWS TO BAY". Volunteer organizations, interested in community projects, are helping to make a difference to protect our local environment. The message is important for several reasons. Storm water drain lines are located throughout the city. They serve to carry rain water off urban streets, parking lots, construction sites, neighborhoods and agricultural lands where it is then channeled into our city's storm dains and ditches. Its final destination is our creeks, bays, lakes and oceans. Often times, such things as trash, grass clippings, hazardous waste and oil are carelessly dumped into the storm water lines. This causes not only pollution to our coastal waters, but results in the clogging of storm water lines that lead to street flooding.

To prevent storm water pollution from occuring in your neighborhood, follow these tips.

* Take hazardous waste products, such as batteries, tires, petroleum oil, grease and like items to the City of Corpus Christi Household Hazardous Waste Facility. For more information, call 857-6284.

* Recycle products whenever possible.

* Prevent grass clippings from floating into storm drains by starting a compost pile. Grass clippings can be used for mulch around flowers beds.

* Collect trash in your yard and neighborhood that may float into storm water drain inlets.

* Report illicit dumpings immediately to the Storm Water Hotline number.

For more information on storm water pollution or on how your organization can participate in the City's Storm Water Stenciling Program, contact the City of Corpus Christi Water Utilities.

OPERATION CLEAN WATER

Storm Water Hotline
880-3800

City of Corpus Christi

(back)

Do Not DUMP Flows To BAY

OPERATION CLEAN WATER
A Solution To Pollution

A community project to create awareness on storm water pollution.

- TRASH
- MOTOR OIL
- GRASS CLIPPI
- GREASE
- PESTICIDES
- ANTIFREEZE

(front)

Storm Water Stenciling Program . . . a solution to the pollution.

The City of Corpus Christi Storm Water Stenciling Program was developed in 1992 and funded by the City of Corpus Christi Water Division, the Texas Department of Transportation and the Port Authority of Corpus Christi. Through the assistance of volunteers, such as yourself, we are able to stencil a simple message on storm water drain inlets to prevent illegal discharges of pollutants into the City's storm water sewer system. The message, "DO NOT DUMP, FLOWS TO BAY" is important for several reasons.

Things you should know about Storm Water

Storm water drain lines are located throughout the city. Storm water drain inlets are openings in the street curbs that allow **rainwater runoff** to enter. They serve to carry rain water off urban streets, parking lots, construction sites, neighborhoods and agricultural lands, where it is then channeled into our city's storm drains and into our ditches. However, **nonpoint source pollution (NPS)** is washed by rainfall off the land and into our creeks, bays, lakes and oceans.

Examples of NPS Pollution

Oil and grease	*from*	roads, highways, used motor oil dumped into yards.
Dirt and sand	*from*	lawns, streets, new construc tion, and farms
Phosphorous	*from*	fertilizers, phosphate detergents
Nitrogen	*from*	fertilizers, decaying plants, and leaking sewage
Coliform bacteria	*from*	feces of wildlife, domestic animals and humans
Other contaminants and litter	*from*	paint, other chemicals poured into gutters or tossed on yards

Preparing for your Stenciling Program

The City of Corpus Christi Storm Water Stenciling Program is made possible through the help of volunteer organizations. A presentation will be made by a representative of the City of Corpus Christi Water Division to help you understand your duties. Your team leader or group organizer will be your primary contact person, in case a change of events is made. Your team leader and the City representative have agreed to stencil a specific neighborhood, perhaps your very own.

Helpful tips

If you've never participated in the Storm Water Stenciling Program, we recommend that you follow these tips on the field day.

- Arrive at the designated meeting place by 8:00 a.m.
- Wear old clothes and comfortable shoes. You may get a bit of paint on them.
- Wear a hat and sun screen.
- Tie a string to a recyclable cup and wear it on a belt loop. Water Division drivers will deliver water to you.
- Let your team leader know if you have a wagon (i.e, Radio Flyer). They are useful for carrying all the supplies.
- Ask your parent(s) or friend(s) to participate in the program with you . The more help we have, the faster we finish our designated stenciling area.

What will you be doing?

There are plenty of assignments for all volunteers. Your team leader will rotate assignments. One of the primary assignments includes painting a message on the City's storm water drain inlets. Volunteers will be separated into a white team and a green team. The white team will paint a white stripe on the drain inlet, using a template. After the white paint has dried, the green team will stencil the message, "Do Not Dump, Flows to Bay", using a template. We will designate additional white and green teams depending on the number of volunteers attending.

Doing the job right.

There are over 13,000 storm water drain inlets in the city. City crews cannot inspect all of them in one year. Often times, such things as trash, grass clippings, plastic bags, and hazardous waste are dumped carelessly into storm water drains. This causes not only pollution to our coastal water, but result in the clogging of storm water lines that lead to street flooding.

You can help be part of the solution to the pollution. Your team can inspect the inlet for trash. This can be done by looking at the storm water drain inlet while standing in front of it. Please report storm water drain inlets that are over polluted with trash and debris. City crew workers will follow-up on your report.

Prevention is the best medicine.

You will find that the Storm Water Stenciling Program stirs the interest of residents who see you painting on their street curb. For this reason, we ask volunteers to hang a notice on the door to advise residents of the prevention of pollution in their neighborhood. You will not be required to knock on any door or speak to anyone about the program, simply leave the brochure on the door.

Because you cared enough to help.

We think that you will find the time rewarding and enjoyable. You will have dedicated one Saturday morning to help improve the quality of our waters. In return, we have a special gift for you.

Operation Clean Water

City of Corpus Christi

GRAND PRAIRIE FLIER

Of all Americans who change their own oil, only 10% of them dispose of their waste oil in the proper manner. Recycle used oil.

Last year in the United States alone, roughly 180,000,000 gallons of used motor oil were dumped on the ground or into sewers. That's almost 16 times the amount spilled by the Exxon Valdez. And according to the EPA, one gallon of used oil can ruin 1,000,000 gallons of fresh water!

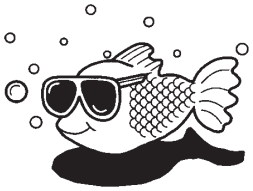
Oil is insoluble, persistent and it can be very dangerous. Used motor oil often contains toxic chemicals and heavy metals – frequently lead, which has been linked to mental disorders and other serious health problems.

We cannot afford to have our drinking water contaminated. Everyone of us has to share the responsibility for transforming used oil from a national liability into a major asset.

Don't forget:

You can make a difference!
If you change your own oil,
don't dump it. Recycle it!

You can make a difference! If you change your own oil, don't dump it. Recycle it!

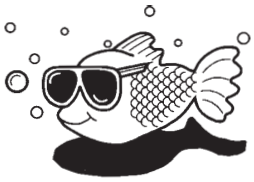


For more information please contact:

City of Grand Prairie
Recycling Coordinator
214-660-8061

Look for this message

being stenciled on your neighborhood storm drains.



Why not dump oil?

Because first of all it's against the law! Texas law prohibits dumping used oil for many good reasons. Used oil is also banned from disposal at area landfills. Did you know:

- The amount of oil in an oil change can ruin a day's water supply for a small city.
- One oil change from one car engine poured into a storm drain can create an eight-acre oil slick, harming aquatic life and stunting or killing aquatic plants.
- Oil stays in the environment a long time. It may take decades to biodegrade.
- Many small oil spills can be as harmful in the long run as one big spill.
- Used motor oil contains toxic substances such as lead and additives. Through improper disposal, both oil and additives can enter the food chain at any point and be carried into our food.
- Oil can be reprocessed and reused at a big energy savings.

Remember:

Recycling conserves our resources and protects our environment.

How is used oil recycled?

Reprocessing. Most used oil in Texas is reprocessed into industrial grade fuel oil. Prior to blending with virgin oil, it is treated to remove oil and sediments.

Re-refining. Through re-refining, used oil can be used over and over without losing its lubricating quality. Whereas producing 2 1/2 quarts of lubricating oil requires 42 gallons of crude oil, only one gallon of used oil is required! Plus, the waste by-products and remaining oil from the refining process can be used as an asphalt extender and fuel oil.

Recycling Centers are conveniently located throughout Grand Prairie. Check this list for the center nearest you.

Chief Auto Parts 2505 S.E. 8th 642-1261	**Nineteenth Street Mobil** 1402 N.W. 19th Street 641-2861
David's Exxon 701 W. Tarrant Road 262-3303	**N. Carrier Parkway Texaco** 602 N. Carrier Parkway 237-0085
Gateway Auto Parts 405 W. Highway 303 642-6666	**Parkway Exxon** 2502 S. Carrier Parkway 641-8000
Harrington's Texaco 1702 W. Main Street 262-8066	**PEP Boys** 424 E. Highway 303 262-0003
HRB Automotive 1009 Hill Street 237-0084	**Warren's Texaco** 1715 Dalworth 262-4840
Lynn's Exxon 802 E. Highway 303 264-8822	**Western Auto** 209 N. Carrier Parkway 642-0084

Recycling is as easy as 1, 2, 3! Here's how it's done.

Drain your oil into a reusable, sealable (screw top) container, such as a milk jug, a water jug or a specialized oil drainer.

Take it to a recycling center. The center has agreed to help out by accepting used oil from do-it-yourselfers. There the oil is picked up for recycling. (If you don't find a collection center near you, ask your full service station if they will take your oil.)

When buying motor oil, ask your dealer for re-refined motor oil. Buying recycled products is an important part of recycling.

Important:

Don't mix other wastes with used oil. Such mixtures can create a hazardous substance and make recycling more difficult.

APPENDIX -H-

SAMPLE NEWS RELEASE

(city or organization letterhead)

FOR IMMEDIATE RELEASE
(Date)

STORM DRAIN STENCILING PROJECT AIMS TO REDUCE WATER POLLUTION

This (Saturday) (INSERT DAY OR DATE), you might see a group of people painting a _____ (INSERT APPROPRIATE DESCRIPTION, i.e., "green and white") sign on the storm drain inlets in your neighborhood. These volunteers are participating in a project to alert residents that dumping in storm drains pollutes lakes, rivers, bays and streams. The city of _____ (OR, _____ ORGANIZATION) is sponsoring this project as part of its effort to reduce nonpoint source pollution.

Much of the pollution in areas streams and lakes comes from common, every-day materials, like household chemicals, fertilizers, pesticides, gasoline, used motor oil and antifreeze and litter. These substances are washed by rainwater from our streets, yards, driveways and parking lots into storm drain inlets. Contrary to what many people think, these storm drains don't lead to wastewater treatment plants. They carry untreated storm water directly into area lakes and streams.

Deliberate dumping of hazardous materials into storm sewers makes the pollution problem worse. Motor oil is often dumped down storm drains, yet just one quart can ruin the quality of 250,000 gallons of water. Dumping oil and other hazardous substances is illegal in Texas. Residents are encouraged to recycle these materials instead.

The stenciled message _____(SAY WHAT THE MESSAGE IS) is there to remind citizens not to dump waste into storm sewers or contribute more pollutants to ordinary storm water runoff by littering, overfertilizing or sweeping yard debris into the street.

_____ (CITY OFFICIAL OR SPOKESPERSON FOR COMMUNITY ORGANIZATION) pointed out that storm drain stenciling has been used successfully in others cities to reduce nonpoint source pollution.

"Every citizen has a role in preventing pollution," he (she) said. "These kinds of projects work because they get government, volunteer groups and businesses working together to solve a common problem."

The _____ (VOLUNTEER GROUP) will be stenciling storm drains in the following neighborhoods on _____ (DATE): _____(LIST NEIGHBORHOODS)

Several businesses and government agencies are cosponsoring this event. They include (LIST SPONSORS, DONORS, ETC.)

For more information, call _____.

STORM DRAINS AND WATER POLLUTION
:30 Radio PSA

ANNCR: Contrary to popular belief, the storm drains on our neighborhood streets do not lead to a water treatment plant. They lead to nearby creeks, which flow into the _____River. (Substitute _____Lake or _____Bay.) If hazardous materials like motor oil and antifreeze get dumped into a storm drain, they end up in the (river). And that's bad for all of us. So don't dump waste down your neighborhood storm drains. Help keep our waterways clean. For more information, call _____.

Announcement courtesty of _____ and this station.

STORM DRAINS AND WATER POLLUTION
:60 Radio PSA

ANNCR: Contrary to popular belief, the storm drains on our neighborhood streets do not lead to a water treatment plant. They lead to nearby creeks, which flow into the _____River. (Substitute _____Lake or _____Bay.) So when hazardous materials like motor oil and antifreeze get dumped into a storm drain, or when street trash and garden chemicals wash into the sewer after a rain, they end up in the (river). And that's bad for all of us. You can help keep our waterways clean. Don't litter and don't use fertilizers and pesticides before a rain. And never dump any kind of waste down your neighborhood storm drains.

The _____ is looking for volunteers to label storm drains with the message "_____." If you can help, call _____.

This message brought to you by CLEAN TEXAS 2000 and _____.

APPENDIX -J-

SAMPLE NEWSPAPER CLIPPINGS

Houston Chronicle-This Week November 9, 1994

Volunteers initiate anti-littering program with stencil message

By **JEFF BRAY**
ThisWeek Correspondent

Volunteers met just before the downpour Saturday, Oct. 15 to begin stenciling an anti-littering message, "You Dump it, You Drink It — No Waste Here," on Washington Avenue storm drains.

"We just got one done when it started pouring," said Lilly Wells, a staff member with the Texas-Houston-Galveston Council of Governments. "This is an ongoing project, though, so we'll be continuing it."

Wells said the project is sponsored by a collaboration among the city of Houston Department of Health and Human Services and Department of Public Works and Engineering, the Houston-Galveston Area Council, the Gulf Coast Waste Disposal Authority, and the Texas Natural Resource Conservation Commission.

"Different programs, such as the Texas Clean Rivers Program have public participation requirements to be eligible for funding," said Wells. "The purpose is to involve the public so that they can become more educated about water quality, pollution problems, and how public behavior affects water quality."

Wells said that the different departments and organizations that came together for the storm sewer project "dovetailed" in their goals.

"Many people don't realize that when you throw something down that storm drain, it doesn't go to a treatment plant like regular sewerage," she pointed out.

'You Dump It — You Drink It.'

Campaign message

"It goes directly into the water system, the bayous, and eventually into the (Galveston) Bay and the Gulf (of Mexico)."

Wells said that the Oct. 15 gathering featured more than 25 children ready to paint their message on more than 100 storm drains. It was a not so amusing coincidence that the terrible floods came along and

See DRAINS on Page 4.

Mark Sterkel photo

Mary Ellen Whitworth, left, environmental advisor for environmental policy to Mayor Bob Lanier, makes the first stencil in the anti-littering campaign. She is assisted by Carlo Monticelli and Demetra Dixon, members of the Serve Houston Youth Corps. Other Serve Houston members hold the banner.

Drains

Continued from Page 1.

stopped their efforts.

"Another stencil part says, 'Dump No Waste, Drains To Bay,'" Wells said. "You might just end up eating it from fish in the Bay or the Gulf, but it's not meant to be literal. It's really just a way to get people to think about what they're putting down there."

Wells said people dump everything from toxic chemicals such as motor oil, to leaves and lawn clippings.

"The lawn clippings help block the sewers and the bayous," she said. "The blockage helps create worse flooding, not that anything could have prevented the floods we've had recently. I just think people are unaware."

For example, Wells said one quart of motor oil creates an oil sheen on the water the length of a football field.

"There are approximately 2.9 million gallons of oil annually dumped from Houston into the Gulf," she said. "People aren't being malicious, although it is illegal. But it's no wonder the shell fish are tainted."

Wells said the project will continue on Washington Avenue from Wilcrest to Houston Ave. All volunteers are supplied with colorful vests, protective gloves, stencils and paint. They also receive training from a city of Houston employee in how to stencil, and are give protection from cones and barriers in the street.

Those interested in participating in the storm drain stenciling project can call the city of Houston Household Hazardous Waste Department, 247-8589.

Houston Post--October 15, 1994

Youth group helps clean up Houston

BY SCOTT HARPER
POST ENVIRONMENTAL REPORTER

An estimated 2.9 million gallons of used oil are dumped illegally into Houston streams and bayous every year, according to state statistics.

But beginning today, officials will launch a small but indelible program to help curb such pollution.

Armed with paint cans and stencils, volunteers with Serve Houston Youth Corps will begin printing no-dumping messages on many of the 45,000 storm drains in Houston that are the primary conduits for used oil and other contaminants getting into area waterways.

"YOU DUMP IT, YOU DRINK IT — No Waste Here" is one not-so-subtle message that officials hope will deter would-be polluters from discharging their motor oil, yard clippings, trash and debris into storm drains.

The stenciling has been a hit in other U.S. cities and towns, not only because of its simplicity and effectiveness but also because it's cheap.

City officials estimate that a $2,500 investment from state, local and private sources should be enough to paint 30,000 storm drains in Houston.

The first drain on the list, which volunteers will coat this morning after a ceremony and news conference, is at 3811 Washington Avenue at Waugh Drive.

The program is a collaborative effort between the city Department of Health and Human Services, the Department of Public Works and Engineering, the Texas Natural Resources Conservation Commission, the Houston-Galveston Area Council and the Gulf Coast Waste Disposal Authority.

2 The Daily Tribune Friday, June 25, 1993

Volunteers to man drain project

Bud Chambers
The Daily Tribune

If you see a group of people huddled around a downtown storm drain Saturday morning, it isn't likely that they have spotted a big alligator or "a swamp thing."

More likely, you'll be witnessing part of a major effort by local 4-H Club volunteers to a cooperative pollution prevention project between the City of Bay City and the Houston-Galveston Area Council.

The mission, according to Matagorda County Water Resources Council Chairman Haskell Simon, is the stenciling of an important anti-pollution on 65 curbside storm drains in and around the downtown area.

While it is recognized that there are many other storm drains and many open stream areas that are vulnerable to this damaging oil and chemical pollution, Simon says, "These 65 storm drains are most important as a symbol and the start of a vital educational process."

For instance, Simon noted that a single vehicle's waste oil dumped into a storm drain can pollute "more than a million gallons of water in our bay system."

Meanwhile, Matagorda County Marine Extension Agent Willie Younger had words of praise for these 4-H volunteers who'll be out early Saturday in three person crews stenciling the anti-pollution warning on storm drains.

"These young people are contributing their time and efforts to a project that is particularly important in this county," Younger said.

Also, the Bay City Public Works Department has painted a new yellow background on more than one-third of the drains that will be stenciled with this warning.

This background, according to Simon, should make the stenciled wording which reads, "No Oil or Chemicals; Drains Into Bay" especially noticeable to thousands of citizens passing by these prominent locations. The stencil also features the likeness of a shrimp.

Younger's "Marine Memos" column elsewhere in today's *The Daily Tribune* has additional information on this environmentally important subject, including details as to how other communities in the county and area can become involved in this program.

Austin American-Statesman

CITY & STATE

Monday, April 10, 1995 B3

Pilot program targets rainwater runoff pollution

■ Campaign shows the dangers in everyday activities to the environment

BY ERICA D. SHAFFER
American-Statesman Staff

A simple act such as washing a car in the driveway, fertilizing the lawn or tossing a cigarette butt could seriously damage environmentally sensitive areas.

It's called nonpoint source pollution — untreated hazardous materials carried into creeks and lakes by rainwater runoff.

The Watershed Protection Pilot Program, developed by the City Environmental and Conservation Services Department, is aimed at fighting nonpoint source pollution by targeting residential areas. The program targets the 3,000 households in the Fort Branch Creek, Shoal Creek and East Bouldin Creek watersheds, said Fatima Paiva, an environmental quality specialist and coordinator of the program.

"In the past, we had done a lot of citywide campaigning," Paiva said. "We also targeted commercial establishments," particularly car repair shops where oil is discarded regularly. "This year we are targeting residential areas."

The campaign, which is budgeted for $80,000 and will run through August, will focus on lawn care and educating residents on how their activities could harm people and wildlife downstream. Some workshops already have been held, and the response generally has been positive.

"There are some people who don't understand the value of prevention," said Nancy McClintock, manager of the Environmental Resources Management Division of the city's environmental department. "Prevention is so much cheaper than going in and spending money on water quality problems later."

The campaign includes a storm drain stenciling program scheduled for April 21. Volunteers armed with stencils and environment-friendly paint will mark storm drains to notify the community that serious damage can occur if pollutants are washed or poured into a storm drain.

"It's a meaningful area," McClintock said. "Everything that happens in a watershed affects the creeks. Watersheds don't respect property lines."

WE WANT TO HEAR FROM YOU

SURVEY

We'd like to know if this manual was helpful to you. Please rank the content of each of the following sections on a scale of 1 to 5, with 1 being not helpful and 5 being very helpful.

Circle the appropriate number:

1. Introduction and discussion of Nonpoint Source Pollution	1	2	3	4	5
2. Description of storm drain stenciling (materials, content, placement)	1	2	3	4	5
3. How storm drain stenciling programs operate (safety, the city's role)	1	2	3	4	5
4. Working with volunteers	1	2	3	4	5
5. Stenciling as an educational tool	1	2	3	4	5
6. Assessing the effectiveness of storm drain stenciling	1	2	3	4	5
7. Profiles of Texas programs	1	2	3	4	5
8. Appendices (liability forms, materials list, stenciling instructions, safety procedures, data tracking forms, recognition certificate, public education materials, sample news release, sample PSAs).	1	2	3	4	5

Please tell us about your city.

1. Did your city have a storm drain labeling program in place before you received this manual? ❑ Yes ❑ No
2. Did you use this manual to start a storm drain labeling program? ❑ Yes ❑ No
3. Did you use this manual to change or add to an ongoing storm drain labeling program? ❑ Yes ❑ No
4. If there is a storm drain labeling program in your city:

   What method is used?

   ❑ Ceramic tile
   ❑ Aluminum plate
   ❑ Spray-painted message using stencil on painted background
   ❑ Spray-painted message applied directly to inlet (no background)
   ❑ Stencil using ink roller with painted background
   ❑ Stencil using ink roller on inlet (no background)
   ❑ Other (describe) _____

   When did the program start? _____

   How many drains have been labeled (approximately)? _____

   What message is applied to the inlets? _____

   _____

   Who does the storm drain labeling? ❑ City workers ❑ Volunteer groups

Please fax this form to TNRCC (512-239-3175) or mail it to CLEAN TEXAS 2000, MC 113, P.O. Box 13087, Austin, Texas 78711-3087.

Name of person filling out form _____

Affiliation _____

Address _____

Phone _____